# Trauma-informed education

**Edited by**
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# Trauma-informed education

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# Editorial: Trauma-informed education

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Editorial on the Research Topic
Trauma-informed education

*Trauma-informed education* has emerged as a novel approach to teaching and learning to support children and young people at school. Acknowledging interdisciplinary advances from the fields of neurobiology, therapeutics, wellbeing and social justice scholarship, the paradigm of trauma-informed education is relatively new. It is necessary in a service-rationing education sector to ensure that efforts toward improvements in teaching and learning approaches encompass the impacts of chronic stress experienced by today's students. These stresses result from increasing levels across the world of child maltreatment, family instability, lingering impacts of COVID-19 and other health troubles, economic uncertainty, political instability, and other continuing community concerns (Hammerstein et al., 2021; Drotning et al., 2023; Leigh et al., 2023).

As childhood trauma and adverse childhood experiences can have detrimental impacts across the lifespan and on education outcomes, proactive pathways of support often require a mosaic approach. These include evidence-based and evidence-informed interventions which encompass but draw far beyond teacher pre-service training or professional development focussed primarily on academic planning and delivery (Maynard et al., 2019). So far, trauma-informed education has incorporated novel understandings of neuroscience and the integrated nervous system as connected to the body's regulatory needs for stress regulation and relational health (Costa, 2017). From attachment-aware perspectives, trauma-informed education advocates for relational pedagogies to ensure teachers exemplify unconditional positive regard, restoration and repair for students whose behaviors can rupture the classroom community. It builds upon legacies of social emotional learning (SEL), resilience studies, restorative practices in schools and the like (Ma et al., 2020; Durlak et al., 2022; Martins et al., 2022). It is informed by culturally-responsive pedagogies and values toward educational equity and an emancipatory mindset through education (Gay, 2018). It is centered upon the voices, perspectives and lived experiences of students made vulnerable by systemic factors of social and economic disadvantage (Stokes et al., 2019).

Trauma-informed education provides a new vista to teaching professionals, school leadership teams, and education researchers to integrate allied fields. This is in the service of a singular practice narrative to ensure school-aged students contending with complex, unmet needs for learning receive differentiated pedagogical intervention to increase their capacities, capabilities, and readiness to learn. Two articles in this Research Topic address this area. These include articles on trauma informed instructional practices (Stokes);

trauma informed culturally responsive behavior support (Schimke et al.). At its foundations, trauma-informed education employs an interdisciplinary approach to remind teachers that learning is not stress free. Many students struggle because they have lower baselines for stress tolerance and cannot yet manage their own escalation or dissociation within the classroom in times of learning or social struggles. To address this, teachers and educational support staff need specific training in trauma-informed education. A number of articles address this area. They included: considerations for the delivery of trauma informed professional learning for teachers (Koslouski and Chafouleas; Koslouski); trauma informed initial teacher education (L'Estrange and Howard) and trauma informed education for teachers working in remote areas (Brown and L'Estrange; Brown et al.).

Trauma-informed education also directly addresses teacher workforce retention and burnout (Brunzell et al., 2018). Stories of meaning-making at work (Brunzell et al.) provide perceptions of teachers' understanding of the impact of working with children impacted by trauma. Providing measures of educator self-efficacy around emotional coregulation furthers this understanding (Lindstrom Johnson et al.).

There is much work to be done to ensure that trauma-informed education reaches its potential as a sustainable field of enquiry yielding practice innovation. It is necessary to promote a system-wide trauma-informed response to bolster schools to meet the increasing needs for safety, relationships, and learning within classrooms and beyond. The work on developing national guidelines for trauma aware practice begins this process of system support (Howard et al.). Innovation must build upon findings well-established in the trauma-informed literatures. This Research Topic features promising practices, evidence of impact, policy support and future directions for the paradigm.

## Author contributions

HS: Writing–original draft. TB: Writing–original draft. JH: Writing–review and editing.

## Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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# Key Considerations in Delivering Trauma-Informed Professional Learning for Educators

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More than half of United States adults have experienced potentially traumatic events. Given that reminders of these events can spur re-traumatization, facilitators of professional learning about trauma-informed practices must be intentional in their delivery to avoid re-traumatizing participants. Based on our experience delivering professional learning in trauma-informed practices to K-12 educators, we outline key strategies for facilitators. We organize these strategies using the United States Substance Abuse and Mental Health Services Administration's (SAMHSA) 6 key principles of a trauma-informed approach: safety; trustworthiness and transparency; peer support; collaboration and mutuality; empowerment, voice, and choice; and cultural, historical, and gender issues. Within each principle, we offer three strategies along with rationale and supporting research for each. Example strategies include learning about the school, staff, and students as much as possible before leading the training (collaboration and mutuality), conveying that there is not a "one size fits all" answer to addressing student trauma (trustworthiness and transparency), and providing time for educators to reflect on how to apply the content to their classrooms (empowerment, voice, and choice). We demonstrate alignment of these strategies with implementation supports of trauma-informed learning (e.g., relevance to school community) and provide facilitators with action planning questions to guide selection of recommended strategies. We conclude with important next steps for research on the delivery of trauma-informed professional learning.

Keywords: professional learning (PL), educator wellbeing, avoiding re-traumatization, implementation, trauma-informed schools

## INTRODUCTION

Calls for trauma-informed schools have gained substantial momentum over the past two decades (Overstreet and Chafouleas, 2016; Harper and Temkin, 2019), thus facilitating significant interest in training educators in trauma-informed practices. Multiple resources outlining key concepts about trauma have been developed for facilitators planning to deliver this training (National Child Traumatic Stress Network [NCTSN], 2008; Chafouleas et al., 2016; McIntyre et al., 2019). Far less, however, has been written about how to deliver this content in a trauma-informed manner. This omission in available resources is notable as more than 60% of United States adults have experienced potentially traumatic events (Merrick et al., 2019), and reminders of these events can cause re-traumatization (Substance Abuse and Mental Health Services Administration [SAMHSA], 2014b).

Re-traumatization, or the reexperiencing of traumatic stress, can occur when a situation reminds someone of their original source of trauma. Re-traumatization can cause psychological distress that inhibits learning (Substance Abuse and Mental Health Services Administration [SAMHSA], 2014b), rendering the professional learning (PL) opportunity less beneficial, and potentially harmful, for educators. Therefore, every effort should be made to avoid re-traumatization during trauma-informed PL experiences.

In this commentary, we draw on our experience delivering professional learning in trauma-informed practices to K-12 educators. We offer strategies for facilitators aiming to deliver effective trauma-informed PL while avoiding potential for participant re-traumatization. Although our focus is on school-based professional learning, these strategies can be applied in other settings (e.g., conferences, university classes). In addition, as most trauma-informed PL includes didactic training (Chafouleas et al., 2016), we primarily orient our examples toward this format but encourage application across trauma-informed coaching, consultation, and policy conversations.

Although there is no universal definition of trauma-informed care (Hanson and Lang, 2016; Hanson et al., 2018), a recent systematic review of trauma-informed clinical care for adolescents (Bendall et al., 2021) found that Substance Abuse and Mental Health Services Administration's [SAMHSA's] (2014a) definition, or close variations, is the most predominantly used. SAMHSA's definition has been used in publications around the world (e.g., Sweeney et al., 2016; Atwool, 2019; Lotty et al., 2020), and thus, there is substantive rationale to organize recommended strategies using SAMHSA's framework. In the framework, 6 key principles of a trauma-informed approach have been identified: safety; trustworthiness and transparency; peer support; collaboration and mutuality; empowerment, voice, and choice; and cultural, historical, and gender issues. In this commentary, we outline three strategies for each of SAMHSA's six principles for a total of 18 recommendations. We provide rationale and supporting research for each strategy. Then, we demonstrate alignment of these strategies with implementation supports of trauma-informed learning (**Table 1**). In **Table 2**, we offer facilitators with action planning questions to guide selection of recommended strategies, understanding that it may not be relevant or feasible to implement all recommended strategies at once. We conclude with important next steps in research on the delivery of trauma-informed professional learning.

## Safety

Substance Abuse and Mental Health Services Administration's first principle of a trauma-informed approach is safety, including both physical and psychological safety. To promote safety for educators participating in trauma-informed professional learning, facilitators should (1) share and remind educators of training topics in advance, (2) begin trainings by acknowledging the potentially distressing nature of the content and invite educators to step away from the content if necessary, and (3) refrain from asking staff to fill out trauma screening questionnaires (e.g., Adverse Childhood Experiences [ACE] questionnaire; Felitti et al., 1998).

Sharing topics in advance promotes safety by providing opportunity for educators to proactively plan for their involvement and self-care related to the topic (Black, 2006, 2008; Boysen, 2017). For example, if educators anticipate being triggered by a topic, they can plan to implement strategies for self-care (e.g., breathing techniques, sitting near the door, requesting an excusal from the training). A reminder the day beforehand allows educators to proactively put these strategies in place. Facilitators should consult with school personnel about the best method for sharing the specific training topics with staff (e.g., email, meeting agenda); facilitators may choose to do so in multiple ways to increase the likelihood that staff receive advance warning. In addition, facilitators should begin trainings by acknowledging the potentially distressing nature of the content and invite educators to step away from the content if needed. Finally, although sharing research on the prevalence of potentially traumatic events (Felitti et al., 1998; Bethell et al., 2017) can be helpful in building educator knowledge of the scope of the concern, this should be done without having staff fill out questionnaires or being asked to self-report their own experiences as these direct reminders of traumatic events could be distressing and re-traumatizing (Miller, 2001).

## Trustworthiness and Transparency

Trauma-informed approaches promote trustworthiness and transparency (Substance Abuse and Mental Health Services Administration's [SAMHSA's], 2014a). In the context of educator professional learning in trauma-informed practices, trustworthiness and transparency can be advanced by (1) dedicating time for building relationships with participants, (2) conveying that there is not a "one size fits all" answer to addressing student trauma, and (3) demonstrating experience with, and empathy for, the challenging nature of responding to behavioral manifestations of traumatic stress.

Dedicating time for building relationships with participants is likely to generate trust that increases educators' investment in the content and suggested shifts in teaching practices (Bryk and Schneider, 2002). The implementation of trauma-informed practices often asks educators to rethink some of their teaching practices (e.g., discipline approaches; Guskey, 2002; National Child Traumatic Stress Network Schools Committee [NCTSN], 2017), which may be well established and even part of their conception of what it means to be an effective teacher (Chen et al., 2012). Trust and positive relationships with the facilitator can help to promote the vulnerability, reflection, and risk-taking that reconsidering teaching practices requires (Timperley et al., 2007; Thompson et al., 2020).

Facilitators are also encouraged to communicate that there is not a "one size fits all" approach to addressing student trauma. In our experience, educators are often looking for the "answer" or the trauma-informed practice(s) that they can implement to resolve their students' challenges. However, the impact and presentation of trauma is diverse (Harvey, 1996) and different strategies will benefit students at different times (Perry and Pollard, 1998). This is not to say that there are not well-established trauma-informed

**TABLE 1 |** Alignment of recommended strategies with implementation supports of trauma-informed learning.

| Recommended Strategies | Precursors to supporting implementation | | | | Supporting implementation | |
|---|---|---|---|---|---|---|
| | Avoid re-traumatization | Strengthen relationships with professional learning participants | Increase buy-in toward initiative | Maximize relevance | Facilitate transfer into practice | Prioritize equity |
| **Safety** | | | | | | |
| Share and remind educators of training topics in advance | X | | | | | |
| Begin trainings by acknowledging the potentially distressing nature of the content and inviting educators to step away from the content if necessary | X | | | | | |
| Refrain from asking staff to fill out a trauma screening questionnaire | X | | | | | |
| **Trustworthiness and Transparency** | | | | | | |
| Dedicate time for building relationships with participants | | X | X | | | |
| Convey that there is not a "one size fits all" answer to addressing student trauma | | | | | X | |
| Demonstrate experience with, and empathy for, the challenging nature of responding to behavioral manifestations of traumatic stress | | X | X | | | |
| **Peer Support** | | | | | | |
| Address STS, burnout, and self-care | | X | X | | | |
| Foster social networks amongst participants | | | X | | X | |
| Provide ongoing coaching or consultation opportunities | | X | X | X | X | |
| **Collaboration and Mutuality** | | | | | | |
| Take a strengths-based approach | | X | X | | | X |
| Acknowledge the work that educators are already doing | | X | X | | | |
| Learn about the school, educators, and students as much as possible beforehand | | | | X | X | |
| **Empowerment, Voice, and Choice** | | | | | | |
| Demonstrate alignment between trauma-informed practices with other initiatives in the school | | | X | | X | |
| Build educators' toolboxes with many strategies that they can choose between | | | | | X | |
| Provide time for educators to reflect on how to apply their learning about trauma to their classrooms | | | | | X | |
| **Cultural, Historical, and Gender Issues** | | | | | | |
| Be attentive to positionality | | X | X | | | X |
| Attend to systemic forces that contribute to student trauma, including naming schools as potential sites of harm | X | | | | | X |
| Build empathy for educators' students, and their families, as well as colleagues | | | | | | X |

teaching practices (e.g., Perry and Graner, 2018); instead, key elements of trauma-informed practice are actively brainstorming how to best support a specific situation and engaging in some trial and error to assess students' responses. Reinforcing this point demonstrates transparency and may promote ongoing implementation despite inevitable challenges.

Finally, educators appreciate professional learning experiences where the facilitator understands the reality of their day-to-day work (Boston Consulting Group, 2015). We suggest that facilitators demonstrate experience with, and empathy for, the challenging nature of working with students exposed to trauma. We encourage facilitators to share stories from their own

work, including personal mishaps encountered and subsequent learning and adjustment that followed. This sharing reinforces the idea that there is not a "one size fits all" approach and that implementing trauma-informed practices will not always go smoothly. Relatedly, we encourage facilitators to acknowledge the emotional and potentially draining nature of disruptive and challenging student behaviors; this demonstrates empathy. We find that educators are more likely to reflect upon their responses to these behaviors when they have received validation for how difficult they can be. In sum, storytelling and transparency about the challenges of the work can be powerful tools for generating trust and rapport with participants (Barbour, 2015; Berger and Quiros, 2016).

**1. Which of the recommendations in Table 1 have I previously considered?**

    a. Review the 18 recommendations provided in **Table 1**. Indicate whether you've established (++), are developing (+), or have not yet considered (−) each of the recommendations.

**2. What are my areas of strength? What are potential areas for growth?**

    a. Identify which of the six principles you are strongest in, and which are areas for growth.

    b. If safety is a potential area for growth, consider how you can implement 1–3 of the recommendations from this principle.

**3. What implementation supports are needed in the context where I'll deliver this training?**

    a. Consider the specifics of the professional learning opportunity that you are planning.

    b. Are any of the precursors to supporting implementation identified in **Table 1** (e.g., strengthening relationships, increasing buy-in) in need of strengthening? Are promoting equity or transfer into teaching practices key goals of the training? If so, consider how you might implement or strengthen any of the recommendations identified as relevant in that column.

**4. What 1–3 recommendations will I focus on?**

    a. Considering your strengths, areas for enhancement, and the specifics of the professional learning opportunity that you are planning, identify 1–3 areas of focus.

    b. Document the recommendations you intend to implement and plan for how to do so.

**5. How can I continue to strengthen the professional learning opportunities that I provide over time?**

    a. With each additional professional learning opportunity that you facilitate, revisit this process to consider the audience that you are working with and training precursors in need of strengthening (e.g., buy-in, relationships with participants).

    b. Your cumulative revisions will enable you to implement many of these recommendations over time!

## Peer Support

Peer support is another important element of trauma-informed approaches. Peer support is particularly important because educators are vulnerable to secondary traumatic stress (STS; Figley, 1995) due to their work with students who have experienced trauma. Facilitators can provide peer support by (a) addressing STS, burnout, and self-care; (b) fostering social networks amongst participants, and (c) providing ongoing coaching or consultation opportunities to educators.

Facilitators should address STS, burnout, and self-care to promote educators' wellbeing while they are engaged in this work. Educators are vulnerable to STS, or trauma responses (e.g., startle, sleep disruption), due to their work with students who have experienced trauma (Figley, 1995; Hydon et al., 2015). STS can have detrimental consequences on both personal and professional wellbeing (e.g., withdrawal from relationships and work responsibilities). Fortunately, school-based discussions of STS and self-care can buffer against these risks (Hydon et al., 2015; Lawson et al., 2019). Trauma-informed professional learning should address and seek to mitigate the toll that this work can take on educators (for a resource, see National Child Traumatic Stress Network [NCTSN] and Secondary Traumatic Stress Committee, 2011).

One strategy for mitigating educator STS is to foster social networks amongst participants. Positive relationships are one of the strongest buffers against the negative effects of STS. Participants should be given opportunities to share their experiences and strategies for attending to their own wellbeing while engaged in this work. Facilitators can also provide guidance for ongoing self-care and peer support (e.g., Chafouleas et al., 2020; University of Connecticut Collaboratory on School and Child Health, 2021).

Finally, one-time trainings are generally ineffective in shifting educator practices (Wei et al., 2009; Desimone and Garet, 2015).

In addition, specific to trauma trainings, educators report challenges translating information they learn in didactic trainings into their classrooms (Wittich et al., 2020). Therefore, consistent with others in the field (Dorado et al., 2016; Wittich et al., 2020), we encourage facilitators to provide peer support through ongoing coaching and consultation for educators. Sustained support with implementing training content and opportunity to seek guidance for challenges specific to their classrooms can make the work highly relevant and more likely to be transferred into practice (e.g., Guskey, 2002; Darling-Hammond et al., 2017).

## Collaboration and Mutuality

Trauma-informed approaches invest in collaboration and mutuality. We recommend that facilitators of trauma-informed professional learning (a) take a strengths-based approach, (b) acknowledge the work that educations are already doing, and (c) learn about the setting as much as possible beforehand.

Educators value and deserve learning opportunities where they are treated like professionals (Boston Consulting Group, 2015). Facilitators are encouraged to take a strengths-based approach to delivering trauma trainings, highlighting educators' many strengths working with students. This can be done, for example, by making time and space for educators to share the expertise that they bring to the work. It is also important to highlight the strengths of students who have experienced trauma. Because much of the training content may focus on negative impacts of trauma on students' learning, it is critical that facilitators showcase student strengths and reinforce that students' experiences of trauma are due to societal failures beyond students' control (Chafouleas et al., 2021).

Related to highlighting the expertise that educators bring to the work, facilitators should acknowledge the work that educators are already doing to support students who have experienced trauma. Even when educators have not received comprehensive training in trauma, it is likely that they are engaged in intentional

work (e.g., providing academic, social, and emotional supports) to scaffold the learning of these students (Koslouski and Stark, 2021). Highlighting these efforts may help educators to feel validated for their work, reinforce relationships and rapport with the facilitator, and strengthen buy-in amongst educators.

As relevance to the school community is a key element of effective PL, facilitators are also encouraged to learn about the school, teachers, and students as much as possible before delivering professional learning experiences (Darling-Hammond et al., 2017). A primary barrier to the implementation of trauma-informed practices is educators feeling that the learning did not fit their context (McIntyre et al., 2019; Wittich et al., 2020). For example, in a setting where students are highly dysregulated and crisis management is the norm, PL focused on building students' social and emotional competencies may initially be difficult to implement; instead, PL focused on regulatory strategies (e.g., yoga, music, rhythmic movement) may be more effective and allow for subsequent attention to social and emotional skills (Perry and Dobson, 2013). Facilitators should also tailor the content of their trainings to the types of trauma experienced in the community (e.g., migration stress, systemic racism, addiction). Gathering this information can equip facilitators with information to facilitate contextually relevant training (for a helpful resource, see New Orleans Trauma-Informed Schools Learning Collaborative, 2019). To maximize relevance, facilitators might seek feedback on training materials from a small number of educators in the setting in advance of the actual training.

## Empowerment, Voice and Choice

Trauma-informed approaches prioritize empowerment, voice, and choice. Working with educators, facilitators of trauma-informed professional learning should (a) demonstrate alignment between trauma-informed practices and other initiatives in the school, (b) build educators' toolboxes with multiple strategies, and (c) provide time for educators to reflect on how to apply their learning to their classrooms.

Educators are exposed to a wide variety of professional learning initiatives and educational reforms (Wilson et al., 2011). Over time, this can lead to "initiative overload," whereby educators grow cynical toward any new initiative, questioning the value and sustainability of anything new (Blodgett, 2018, p. 105). Therefore, it is important that facilitators demonstrate how trauma-informed practices align with other initiatives. For example, facilitators may emphasize that when students are better able to regulate their trauma responses, they are increasingly available for learning across curriculum areas. This understanding may motivate educators to integrate trauma-informed practices into their work across initiatives and to see the synergistic benefit of these practices.

Next, facilitators should introduce educators to a variety of strategies that support students who have experienced trauma (e.g., regulating activities: movement, drumming, rocking, humming) and encourage them to choose strategies likely to be most beneficial in various circumstances. This choice reinforces that there is not a "one size fits all" approach to trauma-informed

teaching and encourages educators to apply their expertise in response to various challenges that arise.

Facilitators should also provide time for educators to reflect on how to apply the content they have learned to their classrooms. This reflection may facilitate transfer of learning into classroom practices and promotes educator empowerment, voice, and choice. Educators report that they are not often given time in professional learning opportunities to engage in reflection and application work, but when they are, it supports their transfer of learning into their work with students (Koslouski, 2021).

## Cultural, Historical, and Gender Issues

Finally, trauma-informed approaches attend to cultural, historical, and gender issues. To be trauma informed, facilitators of professional learning need to (a) be attentive to their positionality in relation to the educators, students, and families in the community, (b) attend to systemic forces that contribute to student trauma, including naming schools as potential sites of harm, and (c) build empathy for educators' students, and their families, as well as colleagues.

Facilitators are encouraged to be attentive to their positionality in relation to those they are working with. Facilitators should reflect upon how their identity, experiences, and current role influence their work. Due to systemic racism, bias, and legacies of harm, traumatic experiences are disproportionately experienced in minoritized communities (Fortuna et al., 2020). Meanwhile, the majority of United States educators hold majority identifies (Spiegelman, 2020). Therefore, it is particularly important that facilitators reflect on their positionality in relation to the educators, students, and communities with whom they are engaging. The ADDRESSING framework (Hays, 2008) can offer a valuable starting place for engaging in this work.

Goodman (2015) noted that "[T]rauma does not occur in a vacuum; it arises in a sociopolitical context and is influenced and sometimes caused by systemic forces, such as political violence, racism and economic inequality" (pp. 64–65). Early work on trauma-informed schools often overlooked this point, locating experiences of trauma in homes, families, and communities, rather than as a result of oppressive and ever-present social conditions (Mayor, 2019; Gherardi et al., 2020). This perpetuates harm inflicted on families and communities by reinforcing deficit narratives (Mayor, 2019). Facilitators are encouraged to acknowledge and attend to structural racism, economic inequality, and systemic forces that cause and contribute to student experiences of trauma. This attention may also serve to protect educators from re-traumatization during the training by contextualizing experiences rather than implying blame toward childhood caregivers or communities. Importantly, facilitators also need to address schools as potential sites of harm, showing how schools have historically and contemporarily caused or exacerbated student trauma (e.g., through biased and exclusionary school discipline; Gherardi et al., 2020).

Lastly, facilitators should promote empathy for educators' students and their families, as well as colleagues. At its core, trauma-informed teaching is about relationships and empathy (Chafouleas et al., 2021). Attending to cultural,

historical, and gender issues necessitates that empathy is built across stakeholders. One way to do this is to illustrate how systemic conditions (e.g., compromised access to healthcare or affordable housing) contribute to family stress and potential experiences of student trauma (e.g., homelessness, household substance use; Ellis and Dietz, 2017). In addition, describing the neurodevelopmental interruptions caused for students by traumatic experiences (Perry, 2009) can build educator empathy for students. Finally, attention to STS can facilitate empathy for colleagues. Professional learning opportunities in trauma-informed practices that do not promote empathy for students, families, and colleagues risk perpetuating harm rather than promoting support and healing. Facilitators are encouraged to think deeply about the cultural, historical, and gender issues that are relevant to their work with educators.

## DISCUSSION

In addition to aligning strategies with SAMHSA's framework, we highlight how these strategies support implementation of trauma-informed teaching practices (see **Table 1**). Research and experience indicate that strong relationships between educators and the facilitator (Koslouski, 2021), high levels of staff buy-in (Cole et al., 2013; Collaborative Learning for Educational Achievement and Resilience, 2018), and relevance to the school community (Wittich et al., 2020) all support the implementation of trauma-informed teaching practices. We identify avoiding re-traumatization, supporting transfer into practice, and promoting equity as additional key goals of professional learning in trauma-informed practices.

We recognize that our list of recommendations is long and encourage facilitators to assess their own strengths and opportunities for enhancement (see **Table 2**). Facilitators might consider which of SAMHSA's six principles they are strongest in, and which are priorities for growth. If not yet considered in the training design, we suggest that facilitators first focus on the area

of Safety. Facilitators can also use the columns in **Table 1** (e.g., strengthening relationships, increasing buy-in) to identify next steps. For example, if increasing buy-in is a priority, facilitators may choose to focus on recommendations identified in that column. We recommend that facilitators focus on incorporating 1–3 recommendations at a time, re-visiting choices in future trainings to make additional enhancements.

In this commentary, we draw on extensive experience conducting trainings but encourage future investigation of how these strategies support educator learning and implementation of trauma-informed practices. Important next steps in the field of trauma-informed professional learning also include research to evaluate impact on educator knowledge and attitude toward the professional learning as well as their capacity to effectively implement trauma-informed practices.

## DATA AVAILABILITY STATEMENT

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

## AUTHOR CONTRIBUTIONS

JK and SC contributed to the conception and design of the manuscript. JK drafted the manuscript. Both authors contributed to manuscript revision, read, and approved the submitted version.

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# Multi-Tiered Culturally Responsive Behavior Support: A Qualitative Study of Trauma-Informed Education in an Australian Primary School

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There is growing awareness of the impact of intergenerational trauma and community disadvantage on the educational achievement of Aboriginal and Torres Strait Islander (First Nations) children in Australia. Scholars have identified the need for culturally responsive and trauma-informed approaches to complement existing disciplinary and behavior support practices utilized in schools. This pilot research project explored the experiences of primary school teachers who were supported to implement trauma-informed practices in a regional primary school with a large number of First Nations students. Qualitative interviews with eight teachers were conducted after a 3-year (2017–2020) implementation of the Trauma-Informed Behavior Support (TIBS) program. Using a thematic analysis approach, the study identified the following themes: changes in teacher knowledge about the impact of intergenerational trauma, acknowledgment of the multi-systemic influences on student behavior difficulties, increased self-efficacy in providing culturally safe learning environments and strategies for building relationships with First Nations students. The findings offer insights into factors that support the successful and sustainable implementation of culturally responsive and trauma-informed practices in primary school settings.

Keywords: adverse childhood experience (ACE), culturally responsive and trauma-informed practice, primary school, multi-tiered system of supports (MTSS), trauma informed care (TIC)

## INTRODUCTION

School attendance and levels of literacy and numeracy of Aboriginal and Torres Strait Islander children in Australia (hereafter referred to as First Nations Peoples) fall behind those of non-Indigenous students (Commonwealth of Australia, 2020). These inequalities in educational outcomes can be attributed to a complex interaction between historical, social, and environmental factors. First Nations Peoples have endured genocide and the forced removal of children from their families for over 60 years (referred to as the "Stolen Generations"). This historical maltreatment

and intergenerational trauma related to colonization, continues to impact the lives and experiences of First Nations Peoples, with ongoing injustices, institutional discrimination, and racism. First Nations children experience Adverse Childhood Experiences (ACE) at a higher rate than the general population (AIHW, 2020). The "cumulative harm" of the impact of ACEs is complex, can persist for several decades (Thoma et al., 2020) and can be transmitted inter-generationally (Atkinson et al., 2014). First Nations children are more likely than non-Indigenous children to be the subject of child protection concerns (48 per 1000 First Nations children compared to 7.2 per 1000 non-Indigenous children) (AIHW, 2020). Theories regarding the mechanisms of how such early adversity impacts school functioning identify the role of intergenerational disadvantage and developmental trauma on children (Menzies, 2008).

Studies examining the impact of ACEs on educational outcomes report that children who experience adversity have lower academic achievement, greater special education needs, and higher non-completion rates compared to children who do not experience adversity (Perfect et al., 2016). Given the pervasive and chronic nature of the impact of ACEs in childhood, schools can be an important part of a multi-systemic, wraparound treatment approach. Drawing on ecological system theories (Bronfenbrenner, 1992; Cicchetti and Valentino, 2015), wraparound support refers to a community-based approach to providing comprehensive, integrated services through multiple professionals and agencies and in collaboration with families (Fallon and Mueller, 2017; Chafouleas and Iovino, 2021). Chafouleas et al. (2021) highlight two important challenges in the implementation of such practices in school settings. Firstly, they point to the need for systemic, multi-tiered implementation of trauma-informed care (TIC) practices in schools, and a greater understanding of factors impacting the successful implementation of these practices in schools. They also comment that current TIC practices are at risk of not sufficiently acknowledging systemic, cultural, and intergenerational factors that may influence the implementation of trauma-informed educational practices (Chafouleas et al., 2021).

## Contextualizing Trauma-Informed Care in Schools: Incorporating Culturally Responsive Practices

The recognition of the disproportionate exposure of ACEs among First Nations and minority students has led researchers to turn their attention to the use of practices that attempt to account for the historical, cultural, and community-based influences on the students' lives and development. Gay (2010) defines culturally responsive practices in education as those that utilize cultural knowledge, information about historical and intergenerational trauma, and frames of reference to make learning inclusive and relevant for all students. Approaches to culturally responsive practice with Australian First Nations students include consideration of specific cultural protocols that influence how Aboriginal and Torres Strait Islander Peoples think of social and emotional wellbeing. For example, Miller and Berger (2020, p. 44) emphasize

that attention be paid to the "unique strengths, challenges and cultural values of Aboriginal and Torres Strait Islander people" as key considerations of a culturally responsive, trauma-informed approach. Additionally, Dobia and O'Rourke (2011) suggest that culturally responsive practices adopt a holistic view of wellbeing that includes dimensions of physical, mental, cultural, and spiritual learning that occurs across a range of contexts – such as the family, community, land, and society.

While there have been programs designed to be culturally responsive to the needs of First Nations families in health and social services (Educaring; Atkinson, 2017), there appears to be limited research into the use of such programs within mainstream Australian educational contexts. As scholars and researchers highlight the need for support programs to be designed around the cultural needs of First Nations children (Atkinson, 2008), further research is required on the impact of such approaches in reducing the ongoing disparities in educational outcomes amongst Aboriginal and Torres Strait Islander students. Scholars have highlighted the need to understand the complexities related to sustainably implementing culturally responsive practices in schools, by integrating them with existing multi-tiered support frameworks (Chafouleas et al., 2016; Berger, 2019).

## Implementation of Trauma-Informed Education Practices: Multi-Tiered Approaches

Multi-tiered systems of support in schools refer to a data-driven, stepped model of student support that matches evidence-based practices with student level of need. For example, the Multi-Tiered Systems of Support (MTSS) refers to a three-tier model of interventions and supports for students. Tier 1 supports are delivered universally to all students, including those not currently at risk of social-emotional difficulties. Tier 2 consists of targeted interventions and supports aimed at at-risk students (i.e., those exhibiting signs of psychological distress). Finally, those students who are exhibiting severe and complex social-emotional needs are provided intensive supports and school-based interventions at Tier 3 (Chafouleas et al., 2016; Berger, 2019). Research has shown that such multi-tiered systems have been related to positive outcomes for both students and teachers (McIntosh et al., 2016), including increased emotional regulation in students (Bradshaw et al., 2015), reduced problematic student behavior (Kelm et al., 2014; Bradshaw et al., 2015), and increased teacher morale, efficacy, and job satisfaction, leading to teacher longevity (Ross et al., 2012; Kelm et al., 2014). Incorporation of culturally responsive and trauma-informed practices into such multi-tiered systems requires capacity building for all school staff to achieve effective, school-wide implementation. This includes training, coaching, and leadership support (Flannery and McGrath Kato, 2017; Lowenthal, 2020). When professional development and coaching related to TIC is delivered in school settings, teachers report an increase in their knowledge about trauma and trauma-responsive practices as well as their understanding of how to help trauma-exposed students in schools (Dorado et al., 2016). Many of the

educational frameworks and practices proposed are primarily linked to First Nations students in Canada, or minority groups in the United States, with few studies to date examining the application of such culturally responsive, multi-tiered systems in an Australian school context.

## Summary and Research Questions

Culturally responsive and TIC practices represent a promising approach to mitigate the negative impact of factors influencing the educational outcomes of First Nations students. This study is part of a program of research utilizing qualitative and quantitative methods exploring the experience and impact of a novel multi-tier, culturally responsive, TIC program, Trauma Informed Behavior Support (TIBS; Ayre and Krishnamoorthy, 2020) in a regional primary school in Australia. The research questions guiding the investigation are:

> RQ1: In what ways does the program change teacher knowledge and attitudes about trauma-informed and culturally responsive practices?

> RQ2: What are the changes in teacher trauma-informed and culturally responsive practices following the program implementation?

It is hoped that the findings will provide guidance on the program implementation, and inform the design of larger evaluation studies of the program. The following sections will provide an overview of the school involved in the research, as well as a description of the TIBS program and its implementation at the school.

## CONTEXT

The school at the center of this study was a public primary school (pre-school to grade six) located in Northern Territory, Australia. The school was deemed appropriate for the pilot implementation of the program, given the large percentage of First Nations children enrolled at the school. At the time of the study, the school population was 230 students, with an average class size of 33 students. The student group consisted of 92% First Nations students and up to 70% of students for whom English is an Additional Language or Dialect (EALD). Sixty-eight percent of students were identified as having a disability. Approximately 40% of the students were living in government-funded public housing facilities. The staff consisted of 10 classroom teachers and five teacher aides. The staffing group also consisted of five administration and business support staff. The 10 classroom teachers included those who were in specialist teacher roles such as Physical Education, Librarian, and Social Emotional Wellbeing teacher. All staff participated in the training. Four staff members identified as being of First Nations descent. The average age of the teaching staff was 43 years ($SD$ = 13.85). The teaching staff had an average of 15 years of teaching ($SD$ = 9.79) experience, 5 years ($SD$ = 4.15) of which being at that school. With the exception of one teacher who moved from a substitute teaching position at the school into a permanent teaching position, there were no changes to the teaching staff during the 3-year period of the program implementation.

## PROGRAM ELEMENTS AND IMPLEMENTATION

**Figure 1** includes the implementation logic model of the Trauma Informed Behavior Support (TIBS) (Ayre and Krishnamoorthy, 2020) program and outlines key activities and objectives of the program implementation over 3 years. The TIBS program uses a three-tier approach to implementing TIC practices to support vulnerable students. As outlined in the "Assumptions" and "Theoretical Foundations" sections of the program logic model (**Figure 1**), TIBS is based on a trans-theoretical framework of practice that draws on developmental traumatology, social-learning, and systems theories (see Ayre and Krishnamoorthy, 2020 for a detailed description of the framework). The program provided a framework of practice based on principles of TIC (SAMHSA, 2014) and culturally responsive and healing centered practice (Hammond, 2014).

The "Activities" related to the program implementation (**Figure 1**) describes the three tiers of student support, as well as the timeline for the program implementation. The implementation planning and co-design phase occurred between February 2017 and May 2017, and involved consultation with school staff, key stakeholders and elders and cultural brokers within the school community (see Bellamy et al., 2022 for descriptions of the program co-design and consultation process). Each tier was implemented using a blended-learning training approach (Strayer, 2012), with participants engaging in online learning and in-person workshops. A guided analytic approach was utilized to support teachers in applying the concepts of the training, and co-design activities and practices that align with the program's guiding principles The preliminary training programs for the three tiers was completed at the end of June 2017, with the program trainers continuing to work with the school community to implement the program till November 2020 (**Figure 1**).

Tier 1 training content related to whole of school practices and was provided to all school staff (including administrative and business support personnel) and key stakeholders (see "Output" section in **Figure 1**). Suggested practices in this tier related to all the students at the school. Tier 2 focused on classroom specific practices and was offered to the teaching staff and teacher aides. With classroom teachers across all the grades at school involved in this training, all students at the school were exposed to practices in this tier. Finally, Tier 3 related to the trauma-informed functional behavior analysis process, and was provided to the members of school's leadership team (**Figure 1**). This higher level of training was aimed at building capacity in the leadership team to provide coaching and support to teachers who had difficulties in supporting particular students with complex needs. A total of 15 students were identified across the 3 years that required interventions related to Tier 3 practices of the program. A detailed description of the program content related to each tier of the program can be found in Appendix A.

## Trauma Informed Behaviour Support (TIBS) Program Logic Model

| INPUTS | ACTIVITIES | OUTPUTS | OUTCOMES |
|---|---|---|---|

**INPUTS**

**Resources:**

- *Funding:* For program trainers, program materials and off-line professional development time for teachers.

- *Resources for Online Learning & In-person training:* Access to computers, broadband connection and access to eLearning platform; training rooms, projector, printed hand-outs.

**Key stakeholders:**

Students, Class teachers, School leaders, School support staff, Key stakeholders in the school community (e.g. parents, local services, community elders).

**ROLES AND RESPONSIBILITIES**

**Program trainers:**

Coordination and facilitation of in-person and synchronous and asynchronous online training.

**School leaders:**

- *Training:* Participation in training for Tier I, Tier II, Tier III.
- *Implementation support:* Oversight of multi-tier interventions implementation fidelity – including school-wide practices, support for curriculum design and participation in wrap-around support planning.
- *Data collection and management:* Oversight of screening, problem behaviour
- *Regular communication:* Meetings and electronic communications with program trainers and school community.

**Classroom teachers & school support staff:**

- *Training:* Participation in training for Tier I and Tier II.
- *Curriculum planning:* Reviewing class based data and student information, planning and implementing Tier II interventions.
- *Support for school-wide activities & practices:* Implementation support of Tier I interventions.
- *Participation in wrap-around support planning:* Attending support planning meeting as required.

**Key stakeholders in the school community:**

- *Training:* Participation in training for Tier I.
- Participation in wrap-around support planning: Attending support planning meeting as required.

**ACTIVITIES**

**Program Co-design and Implementation Planning Phase (Feb 2017 to May 2017)**
- *Program suitability and feasibility assessment:*
  - Review of academic and social-emotional needs of students; Disciplinary practices and procedures;
  - Mapping of key stakeholders;
  - Establishing screening and data metrics and collection protocols;
  - Establishing program implementation fidelity protocols;
  - Coordination of training schedule.
- *Training Program: Trauma Aware Educator – Asynchronous online course (Length: 2 hrs):*
  - Review of content with school leaders and First Nations cultural brokers;
  - Course amendments;
  - eLearning platform set-up and registration of participants;
  - Weekly progress report on participants' course completion status.

**Tier 1 Supports Implementation Phase (Start: May 2017):**
- *Training program - Trauma Informed Education:*
  - Asynchronous online course (length 4 hours): Offered to all school staff.
  - In-person training: 1-day training for all staff and key stakeholders on 6C framework for school wide practices; guided analytic process with school staff to design whole-of-school activities and practices.

**Tier II Supports Implementation Phase (Start: Jun 2017)**
- *Training Program - Trauma Responsive Practice:*
  - 1-day in-person workshop and
  - Three follow-up synchronous online sessions teachers and school leadership team;
  - Guided analytic process to support transfer of learning and support teachers for curriculum modification, and activity planning.
- *Meeting between class teachers and school leadership:* Meeting at the start of the term to review class-based planning for curriculum, activities and interventions.

**Tier III Supports Implementation Phase (Start: Jun 2017):**
- *Training program:* Trauma informed functional behaviour analysis and support: Synchronous online training (1 day) for school leadership team.
- *Wrap-around support sessions:*
  - Guided analytic process with class teachers,
  - Cultural brokers and school leadership with program facilitators in developing individual education plans for selected students.
- *Stakeholder meetings:* School leadership and teachers participate in meetings with key stakeholders (including parents) to support co-ordinated care planning.

**Implementation Support and Fidelity Check (Feb 2017 to Nov 2020):**
- *Monthly meeting:* Online meetings between program facilitators and school leadership team – including First Nations cultural brokers to:
  - Review academic, social-emotional and behaviour data;
  - Progress of Tier I activities and practice plan;
  - Implementation of individual class plans & individual education plan;
  - Multi-tier alignment of activities and interventions.

**OUTPUTS**

**Program Implementation planning Phase:**
- Yearly schedule of training and meeting dates.
- Online course completion: All school staff (n = 20) and key stakeholders (n = 24)

**Tier 1 Supports Implementation Phase:**
- Online course & in-person training completion: All school staff (n = 20)
- Development, dissemination, review and implementation of Tier I activities and practices plan – completed annually.

**Tier II Supports Implementation Phase:**
- Online & in-person training completion: All teaching staff (n = 15)
- Development, review and implementation of Tier II activities per class – completed each school term.

**Tier III Supports Implementation Phase:**
- Online training completion: School leadership staff (n = 5).
- Wrap-around support session: 2 meetings per term, per student.

**Implementation progress and fidelity:**
Monthly meetings completed.

**OUTCOMES**

**Students**

- *Short-Term:* Improvements in reported school belonging & school climate; Gains in rates of school attendance;

- *Medium-Term:* Reduction in rates of problem behaviours; Gains in academic achievement;

**Staff**

- *Short-Term:* Improvements in attitudes, knowledge and practices related to culturally responsive and trauma informed care practices;

- *Medium-Term:* Gains in self-efficacy; Gains in staff cohesion; Reduction in staff turn-over; Improvements in self-care & wellbeing.

| ASSUMPTIONS | THEORETICAL FOUNDATIONS | CHALLENGES |
|---|---|---|
| - Childhood trauma disrupts student wellbeing and learning.<br>- School can mitigate the negative impacts of trauma through support practices that promote safety and belonging.<br>- Student cultural and linguistic backgrounds offer strengths and assets that promote resilience and recovery from the effects of trauma. | - TIBS trans-theoretical framework based on concepts of developmental traumatology, social learning and systems theory.<br>- Two degrees of change: awareness and attitudinal change, followed by changes in pedagogical practices. | - Transfer of learning to practice.<br>- Ensuring goodness-of-fit of practices to contextual needs.<br>- Resources to maintain fidelity of practices. |

**FIGURE 1 |** Trauma-informed behavior support (TIBS) program logic model.

A key feature of the training and implementation was the consultation with First Nations school staff and First Nation elders in the local community. Examples of culturally responsive practice elements integrated into the training following these consultations included:

- highlighting the impact of power differentials in the engagement of First Nations students in institutions perceived as being governed by non-Indigenous individuals.
- understanding language and practices used to "problematize" First Nations individuals – both in the past and the present.
- identifying how the legacy of colonization is maintained by institutions through hegemonic practice and oppressive policies.
- recognizing First Nations families' ways of learning.
- sharing stories that affirm First Nations students and their families as holders of expert knowledge about their lives and experiences, within and outside of educational systems.
- promoting practices that foster cultural safety for First Nations students and families that require a critical reflection of knowledge, skills, and attitudes to provide an experience of school as a safe, accessible, and responsive environment that is free of racism.

Other examples of culturally responsive practices include:

- First Nations cultural broker checking in at children's homes each morning and driving them to school in the school bus, being a support person for student's families at school and stakeholder meetings, and advocating for their needs in other forums and settings.
- cultural broker to attempt to contact and check in on the welfare of families, or obtain information through community contacts, if the student had not attended school.
- obtaining consent to provide child/family specific information to teachers to support a strengths-based perspective and reduce the possible misinterpretation of behaviors.

To ensure the successful implementation of the TIBS program, the program facilitators met regularly with the school leadership team (see "Activities" section in **Figure 1**). These meetings provided the team an opportunity to review procedures and practices in the context of emerging needs and competing demands (see "Challenges" section in **Figure 1**). The meetings also provided an opportunity for the leadership

team to consolidate key learning and receive support for the practical and emotional challenges of supporting students at the school. The research questions guiding the present investigation relate to the short-term impact of the program on educator's knowledge, attitudes and skills following the implementation of the program (**Figure 1**).

## MATERIALS AND METHODS

### Participants

Participants consisted of eight primary classroom teachers from the school ($n = 8$). A purposeful sample was used, with selected teachers being those who could provide informed accounts of the implementation of the TIBS program (Palinkas et al., 2015). Teachers were given information about the project at a staff meeting to assist in their decision to participate in interviews, and written consent was provided by all participants prior to participating in the interviews. All the teachers and support staff at the school were invited to be part of the research, including First Nations staff. The participants were classroom teachers that taught a range of year levels, from pre-school to Year 6 (for students aged 4 – 12 years old). The sample also consisted of practitioners who held specialist roles of Librarian, Physical Education teacher, and Social Emotional Wellbeing teacher. All participants identified as being Caucasian and female. First Nation staff ($n = 3$) at the school were unable to attend the scheduled interviews. All the First Nations staff were away on leave during the interviews, with two of the staff unwell and the third away to attend a funeral. The participant length of experience at the school ranged from 1 to 10 years. The participant with 1 year of experience had previously worked at the school as a substitute teacher, and had recently moved into a permanent classroom teacher role. All interview participants took part in the training provided. All interviews were conducted by one of the training facilitators during November 2020, with approval from the University of Southern Queensland (USQ) Human Research and Ethics Committee (No. H15REA191). To ensure anonymity participants were de-identified by randomly allocating numbers to each interview transcript.

### Materials

Semi-structured interviews were used to gather information from participants. Interview questions were focused on how teachers transformed their knowledge of TIC as well as change to their use of trauma-informed and culturally responsive practices at the school (see Appendix B for interview questions). All interviews were transcribed verbatim, and participants offered the opportunity to check their transcribed interviews to ensure true and accurate accounts were recorded. One participant provided minor adjustments to reflect accuracy of some terms used in the interview.

### Procedure

Participants were interviewed in November 2020, at the end of the 3-year implementation of the TIBS program. The design of interview process was guided by the principles of TIC (SAMHSA,

2014). To promote a sense of felt safety in speaking with the researcher, all participants were given an information sheet about the purpose and intent of the research, and opportunities to meet and speak to the researchers about the interviews in person. Similar to other aspect of the program implementation, the questions used in the interview were first presented to the school leadership, as well as the key cultural brokers in the school for consultation. The focus of these consultations was to ensure that the questions were adequately sensitive to issues relating to culture, history and other pertinent issues relevant to the school community, as well as the program. The questions were suitably amended based on the feedback received in this process. The feedback from the consultation process highlighted the need to attend to the participant's emotional state when discussing potentially distressing topics, and provide them with the required support during and after the interview. Guidance for the participants regarding this was included in the research information sheet.

To ensure confidentiality and privacy, the interviews occurred in-person, in a private room at the school. Transparency regarding the interview process was supported by participants receiving the interview questions prior to the interviews, to provide them an opportunity to think more deeply about the questions and their responses. Thus, participants were emailed or provided a printed copy of the interview questions (see Appendix B) approximately 2 weeks prior to the interviews being conducted. The participants were reminded of the voluntary nature of research participation, and were also reminded that they could choose not to answer certain question. While the pre-determined questions guided the interviews, the flexible nature of semi-structured interviews allowed participants to deviate from the questions and introduce specific beliefs and points of relevance and interest (Stake, 2005). The opportunity to extend their responses in this way provided a balance between planned and impromptu responses. Many participants commented that their pre-prepared interview notes served as a valuable prompt during the interview process, helping them to convey their individual perspectives and experiences more confidently and accurately. Participants were given time off class to participate in the interviews and length of interviews were kept to between 30 and 60 min. Interviews were conducted back-to-back over 2 days by one of the original TIBS facilitators.

### Analysis

Initially, all interviews were read in their entirety before coding was applied using NVivo (QSR International, 1999). To minimize bias and maintain rigor in coding, three coding cycles were utilized, with coding conducted by the chief investigator, and then checked by the remaining authors for interrater validity. The first coding cycle involved the researcher familiarizing themselves with the interview context, participant language and perspectives of the interviews. A preliminary set of quotes and themes were identified, as well as sections requiring clarification with the researcher who conducted the interviews. Pattern coding was then used as a second cycle to categorize the similarly coded data into categories that captured the overall meaning of the codes (Saldaña, 2013). Thematic analysis

methodology (Braun and Clarke, 2019) was utilized to synthesize key categories of coded data and identify themes that had four or more participants who made similar comments or statements. The interviews were analyzed for ways in which the teacher made meaning of the trauma-informed and culturally responsive knowledge provided to them in their context, and their perceptions of the impact of the skills and strategies of the program.

## FINDINGS

There were five themes identified overall, two in relation to research question one and three for research question two. **Table 1** provides an overview of the themes related to each research question.

### RQ1: In What Ways Does the Program Change Teacher Knowledge and Attitudes About Trauma-Informed and Culturally Responsive Practices?
#### Increased Awareness of the Presence and Impact of Intergenerational Trauma Amongst Students

Awareness of the pervasive presence and impact of traumatic stress responses in students is often the first and vital step in behavior change when responding to students exposed to adversity (Parker et al., 2020). For First Nations students, teachers spoke of their increased understanding of historical and intergenerational influences on the experience of traumatic stress in children and their families. While several teachers were cognizant of the social impacts of colonization on First Nations families, the training appeared to have highlighted the links between student behaviors, physiological stress responses and intergenerational trauma across various settings, including school.

> "it's like the legacy of what has happened in the past. It's still playing out for these families today…. It's not their fault, but you've got to focus on the good things and figure out how things can be different" (Participant 3).

> "now seeing trauma holistically, I understand how it affects the brain, cognition and all facets of someone's life, as well as intergenerational trauma which really wasn't on my radar" (Participant 2).

#### Changes in Beliefs About Causes and Multi-Systemic Influences on Student Behavior Difficulties

There appeared to be a shift in participants thinking about the causes, or reasons for student's challenging behaviors in the classroom. There also seemed to be a change in how educators modified their thinking, beliefs, and attributions about disruptive classroom behaviors – from students being willfully disobedient and having antisocial personality traits to their exhibiting problem behaviors due to unmet social-emotional and learning needs.

> "I think I've changed my attitude to fully understand kids. Sometimes I still had that little niggling mindset that was like

you'll be right. Just go and suck it up and get on with life… the challenging behavior, they're not doing it to get at us, there's a reason behind the behavior" (Participant 1).

> "challenging behavior is a cry for help… it's not naughty… kids don't come to school to annoy us… they come to school to have a lovely time… they're kids that bad stuff happened to" (Participant 4).

Participants spoke of the importance of taking time for reflection before making judgments and responding to student behaviors. Gains in teacher capacity to reflect on the influence of the complex, multi-systemic factors outside of the school on student behaviors was evident in the following quotes.

> "so much is about the child's family, what's happening at home, what they have been through. There is so much grief and loss. It comes out as not listening or back-chatting but it's sadness and worry" (Participant 5).

> "they feel like they are being constantly watched and judged by people like us. Departments and systems. It must feel like everyone's out to get them into trouble" (Participant 7).

### RQ2: What Are the Changes in Teacher Trauma-Informed and Culturally Responsive Practices Following the Program Implementation?
#### Increased Flexibility in the Use of Culturally Relevant and Play-Based Learning

Participants spoke of their growing awareness of the need to flexibly utilize pedagogical practices that addressed the differentiated learning and social-emotional needs of the students in their classroom.

> "my teaching practices have become more fluid and my goals for the end of the day look very different to what they did prior to this" (Participant 2).

Six out of the eight participants also reflected that since the training, curriculum planning and design had purposefully included information linked to students' culture of origin and first languages. Teachers spoke of incorporating information related to the First Nation's Peoples racial, ethnic, and linguistic history in the Northern Territory, across Australia, and in First Nations communities around the world.

> "I try really hard to include…things that I have learnt about the [Indigenous] culture and language… things like numbers and names of animals in different languages…and so I try and incorporate into the lesson plans. Kids that are speakers of language you know that they're actually that's their first language so they can actually teach us things as well" (Participant 8).

The participants also discussed the incorporation of play into their students' learning. In addition to promoting engagement, educators shared their understanding and awareness of the importance of play for the development of social and emotional skills in young children. Many highlighted how this was particularly important for students who had experienced

**TABLE 1** | Key research questions and the corresponding themes identified in the interviews.

| Research questions | Themes |
|---|---|
| (1) In what ways does the program change teacher knowledge and attitudes about trauma-informed and culturally responsive practices? | (1) Increased awareness of the presence and impact of intergenerational trauma amongst students.<br>(2) Changes in beliefs about causes and multi-systemic influences on student behavior difficulties. |
| (2) What are the changes in teacher trauma-informed and culturally responsive practices following the program implementation? | (1) Increased flexibility in the use of culturally relevant and play-based learning<br>(2) Increased use of strategies to improve teacher–student relationships and cultural safety of learning environments<br>(3) Increased self-care, staff cohesion and collaboration with cultural brokers. |

adversity, as a means of promoting a sense of safety and connection to the school community and was evidenced thus:

> "there's a lot more play in the classrooms and interestingly, with more play and more relaxation in the classroom, the learning's happening" (Participant 5).

> "more play-based learning and those social learning situations. . . the social and emotional learning strategies come up so much more in my day to day teaching than before" (Participant 2).

> "we do a lot of play, a lot of those young play experiences. . . those relationship building play experiences" (Participant 8).

## Increased Use of Strategies to Improve Teacher–Student Relationships and Cultural Safety of Learning Environments

Teachers spoke of the program helping develop a focus on relationship building with students and the importance of this in creating a sense of safety in classroom environments. This included developing trust and rapport with students. For example:

> "getting trust by giving them what they need. . .we don't question the fact we have to provide breakfast, uniform, lunches. . .. We just do it. . . if a kid doesn't have food, we just do it" (Participant 4).

> "Building the strong relationships, that's definitely the one that I consider to be the most important, as soon as those relationships are solid, just about everything else is a lot easier to manage" (Participant 6).

> "having things around the classroom that make the kids feel like it's theirs. . . making sure the kids feel really safe and comfortable in the classroom. . . acknowledging the differences but also celebrating them" (Participant 7).

> "often I'll take them outside and we'll talk about their feelings over a kick of football rather than sitting down and sharing it as a whole class which I might do with other students because I know that that's how their family works. They'll sit down and they'll have a yarn about it and they'll work it out together. Whereas I know with those boys, they don't do that at home so I'm not going to make them do that here. It's not appropriate. But they're happy to talk just outside and one of them in particular is quite good" (Participant 4).

Participants also spoke of having a broader awareness of the need for "cultural safety" in classrooms and across the whole school environment – working to explicitly communicate to all members of the school community that individuals of culturally and linguistically diverse backgrounds are to be respected, valued, and celebrated. Participants noted processes where incidents of discrimination and bullying were reported and discussed amongst the staff. At a whole-of-school level, members of the leadership team of the school spoke of the need to adequately address such incidences with students and with families as being an important component of maintaining an inclusive and safe school climate.

> "I've become more doggedly aware of the importance of the school environment. . . my awareness has really become much more attuned to what we need to be doing in schools. . . a trauma-informed approach can't come from just one person. . . it has to be a whole school platform and without that it just wouldn't work" (Participant 8).

Within the classroom, teachers described a variety of pedagogical strategies that promoted both social-emotional learning, and cultural safety. For example, one teacher shared how the visual point scale, or "feeling thermometer," used to monitor feelings and for check-ins throughout the day was individualized using artwork and language related to the student's culture and language of origin. Participants also spoke of songs and dance routines provided by First Nations community groups and cultural brokers being incorporated into sensory breaks and mindfulness activities that highlighted stories related to land and culture. One teacher shared how "calm boxes" – a collection of items intended to support students' emotion regulation - were put together for each student: ". . .we would have sensory items for them. . .but we would get them to bring things that were important. . .like photos of families. . .totems. Bringing a piece of their life and culture outside of the school. . .making it their own special thing." Teachers highlighted the value of a shared language and curriculum regarding social and emotional skills at the school as this provided them with an opportunity to reinforce the use of these skills across various school settings.

The participants also spoke of whole of school activities that promoted inclusion and social-emotional learning. A school-wide calming strategy, that all participants agreed had been highly effective, was Morning Muster. Morning Muster was a whole of school assembly at the start of each day that included the singing of songs based on social-emotional skills (diaphragmatic breathing practice) and songs led by First Nations teachers and community elders. Calming spaces were common across all areas of the school with teachers highlighting the importance of having consistent processes for students to access and utilize those spaces

outside the classroom when they required time to regulate their emotions. Two rooms were made available for students to use when requiring a break from the class and were personalized using artwork and photographs of First Nations sportspeople and celebrities. Individual and group check-ins were offered by the school's Social Emotional Wellbeing teacher. Students having difficulties engaging with the curriculum were given the option to have individual check-ins from a staff member of their choice. This nominated staff member was usually the student's designated contact person and was often a teacher or support staff member of the same cultural or linguistic background.

Participants interviewed highlighted the utility of such whole-of-school practices in providing a shared language and consistency in the expectations of students at the school.

“(across) the whole school …the wording that we use for social-emotional skills has been really helpful in my class” (Participant 3).

“students are all taught the same concepts about relationships and feelings. It gets reinforced daily and gradually I think we're seeing an improvement in behavior over time” (Participant 5).

### Increased Self-Care, Staff Cohesion and Collaboration With Cultural Brokers

All participants identified self-care activities they undertook in their own time to help maintain their wellbeing. These included leaving school on time and not thinking about or discussing school in their own time, participating in activities or hobbies unrelated to work or school, meditation, traveling and holidays, and yoga. All participants were in agreement that because of the training, new self-care activities were employed and those existing prior to the training were given renewed priority. The participants also spoke of increased collegiality amongst the staff and leadership. They described both providing, and receiving support, from colleagues. As part of implementing trauma-informed practices at the school, teachers reported increased group cohesion and discussed the importance of teachers supporting each other. For example:

“you can't be an individual player here… using the idea of if you need to check out that's okay. …do you need me to take your class or take a child for a bit?” (Participant 4).

“I feel like I'm always supported… I feel like I have a really good relationship with the staff at school” (Participant 8).

Teachers also spoke of the influence of the school leadership in promoting this collegiality and teamwork amongst the staff following the implementation of the program. They described the leadership team as having listened to their concerns, showing concern for teacher well-being, modeling a good work-life balance and respecting teacher autonomy. For example:

“just saying when that student can't be with me right now… or I need a break. …. That's really heard by the leadership team… they really listen” (Participant 7).

“I think at the start I definitely wasn't good at realizing my wellbeing needed to be a priority… we've had lots of reminders of that… I've never had a boss ever that would say to me you need to

put you first in order to come here and do your job the next day” (Participant 2).

Participants also discussed the importance of collaborating with First Nations teachers at the school when planning for supporting students at the school. In particular, several teachers highlighted the value of having a First Nations community elder as part of the school staff. In addition to building trust with students and their families, the community elder acted as a mentor for teachers at the school in developing their culturally responsive practices.

“Having [First Nations teachers] in the school is a great resource… [working with them] helps bridge the cultural differences…and influences our understanding of the culture of our students” (Participant 7).

## DISCUSSION

The growing awareness of the prevalence and impact of ACEs and childhood trauma has spurred educators to embrace new approaches to support vulnerable students. Efforts at improving the educational outcomes of students impacted by such adversities has focused on changing practices to become trauma-informed and culturally responsive, to meet the needs of marginalized students, including First Nations students. This research investigated the impact of a novel TIC program in a regional primary school. The 3-year implementation of the multi-tier support program included a focus on the use of culturally responsive practices with a cohort of students, the majority of whom were First Nations children. The first research question aimed to understand the changes in teacher knowledge and attitudes about culturally responsive practices. Despite the general awareness amongst the teachers at the school of the adversity many of their students faced, teachers reported that the training illustrated the prevalence of ACEs, and how the resultant intergenerational trauma in children manifests in behavioral difficulties and disengagement at school. This finding is consistent with previous research on the need for more comprehensive understanding amongst educators of how symptoms of traumatic stress amongst students effects functioning and performance in educational settings (Morgan et al., 2015).

The changes in awareness and attitudes amongst teachers regarding student needs and drivers of student behavior concerns is significant in the development of inclusive practices. Adults who attribute hostile intent to child behaviors have been found to frequently hold unrealistic beliefs about the developmental capacities of the students (Wang and Hall, 2018). Such beliefs have been linked to the use of emotive and coercive disciplinary practices and feelings of frustration amongst teachers (Wang and Hall, 2018). The teacher's reports highlight a more nuanced understanding of the factors contributing to the social-emotional needs of First Nations students - attributions that include the incorporation of historical and multi-systemic impacts on the student and their families. It is likely that holding such an empathic view of First Nations students will form the foundations

for the compassionate use of proactive, relationship-focused practices, aimed at promoting safety and teaching students social-emotional skills. Further research is required to corroborate the links between teacher beliefs and empathy, and the successful implementation of such programs.

Several of the themes identified highlight the increased focus on understanding and celebrating the cultural and linguistic backgrounds of the First Nation students at the school. The teachers appeared both willing to include culturally relevant material into curriculums and seemed to indicate increased self-efficacy in doing so. Surveys of cultural competency amongst teachers have highlighted that while many teachers have good intentions, a misalignment with First Nations cultural protocol can create difficulties (AITSL, 2020). Teachers have been found to feel guilt, and at times be paralyzed by a fear of offending when delivering content related to First Nations Peoples. Given several of the teachers interviewed were non-Indigenous, it is likely that the access to First Nations staff and cultural brokers at the school may be an important source of support for teachers in this regard. The collaboration and development of a close working relationship between First Nations staff and other non-Indigenous educators appears to have allowed teachers to embrace vulnerability and feeling uncomfortable in order to discuss issues such as racism, colonization and systemic disadvantage (AITSL, 2020). While there is a greater need for more professional development opportunities to support teacher's cultural competency, the recruitment, retention and consultation of First Nations teachers appears to be an important enabling factor in the implementation of the program.

The use of play-based learning was another important shift in practice that the teachers recognized as a result of the TIBS training. Teachers reflected that understanding the impact of trauma on cognitive and developmental process in the training allowed them to understand the importance of play. Curriculums that allow students to engage in play-based developmental experiences present opportunities for students to partake in enjoyable and engaging activities that also develop self-regulation skills that are vital developmental skills required for students to be successful at school (Bohlmann and Downer, 2016). Teachers spoke of play-based learning as providing them an opportunity to build stronger relationships with their students, while engaging students in aspects of the curriculum that may otherwise be perceived as uninteresting or irrelevant. While the research did not assess for the specific effects and unique contributions of the individual coaching and ongoing training provided to school staff, such findings highlight the need for ongoing support required to facilitate the transfer of learning to practice following professional development (Garet et al., 2001; Hershfeldt et al., 2012).

Increased group cohesion amongst teachers and school leadership was an unexpected outcome of the program implementation. While the program did not explicitly target improvements in group cohesion through its content, participants reported a sense of "having each other's back" in relation to supporting students with challenging behaviors using trauma-informed practices. Rather than feeling like they were working in isolation, participants reported a sense of support

from their colleagues that some teachers reported they had never felt before in any other school setting. This also allowed the participants to be more effective in their roles and to take better care of themselves within and outside the workplace. Scholars such as Sandra Bloom (Bloom and Farragher, 2010) have highlighted the risk of communication networks within organizations breaking down in the face of chronically stressful work conditions. Multi-tiered TIC programs can help schools create a culture of safety, respect, support, and democratic and transparent decision making that can create the conditions for teachers to be able to provide TIC to their students (Bloom and Farragher, 2010). The measurement and understanding of these organizational processes, such as organizational climate (Bloom and Farragher, 2010; McChesney and Aldridge, 2018), may be an important area of research for the implementation of TIC programs.

Finally, many teachers attributed their commitment to their own wellbeing to the support from the school leadership. A key feature of the implementation of the program was the focus across the school on the wellbeing of the staff. Teachers reported self-care and a good work-life balance was well supported and actively encouraged by the leadership team which enabled them to put these practices in place without a sense of guilt. Teachers reported feeling validated by the leadership team regarding their role and with the decisions they made about how to run their classrooms. Similar comments were made about the benefits of having a school leadership group supportive of TIC practices. Supportive leadership such as this, is fundamental to driving organizational change (Shultz, 2014) and sustainability of TIC in schools. The leadership team behaviors described by the teachers reflect those promoted in the literature as characteristic of TIC champions (Koury and Green, 2017; Hales et al., 2019). TIC champions understand the impacts of trauma and use their knowledge of trauma to assist, facilitate and guide others within the organization by embracing a "trauma-first" way of thinking (Koury and Green, 2017, p. 146). There is emerging research to highlight the role of leadership in facilitating organizational change in procedures and policies of organizations to promote TIC (Howard, 2019). However, limited research has been conducted on the role of educational leadership on the implementation and sustainability of trauma-informed practices (Rosenthal, 2019). This may be an area of enquiry for the future.

## Limitations and Directions for Future Research

This study is limited in that it is based entirely on self-reports of a small number of educators from one school. Research that builds on this pilot research may gather further evidence of changes in awareness and attitudes of trauma among teachers through reliable measures, such as the Attitudes Related to Trauma-Informed Care (ARTIC) self-report measure (Baker et al., 2016). Additional quantitative data from the school relating to perceptions of school climate, attendance rates, rates of problem behaviors and changes in academic achievement may provide insight into the impact of the program. Observational assessments of the teacher's implementation of the practices

of the program may have provided further information to corroborate the interview data obtained. While First Nation staff and cultural brokers in the school community were closely involved in the program implementation and research design, First Nations staff members were unavailable to be interviewed for the research, as they were on leave. As the interviews were conducted over a short-period of time (2 days), it is possible that increased flexibility in the facilitation of the interviews may have been beneficial. It is likely that the replication of the program implementation at another school may highlight other complexities related to the training and implementation of culturally responsive practices. A detailed exploration of the experiences of First Nations teachers, students and their families may shed further light into the impact of the program. Overall, the findings of the study highlight the need for a larger program of research investigating the efficacy of the TIBS approach.

## CONCLUSION

The research explored teacher experiences of the implementation of a culturally responsive, TIC program in a regional primary school in Australia. The study is significant given the limited research into programs targeted at improving teacher capacities in utilizing culturally responsive practices. The key findings relating to attitudinal change in teachers, incorporation of culturally relevant content into the curriculum, the facilitation of inclusive and culturally safe disciplinary procedures and social-emotional learning have important implications for educators working to improve the educational outcomes of First Nations students. The implementation processes of collaboration and co-design with members of the school community – particularly First Nation community members – appear to be promising approaches for the future. The findings highlight several novel pedagogical practices that may be helpful for both First Nations

students, and those that are non-Indigenous. The findings of this pilot study also provide some preliminary support for the TIBS program and suggest the need for replicating the program implementation in different school contexts.

## DATA AVAILABILITY STATEMENT

The original contributions presented in this study are included in the article/**Supplementary Material**, further inquiries can be directed to the corresponding author.

## ETHICS STATEMENT

The studies involving human participants were reviewed and approved by University of Southern Queensland Human Research Ethics Committee. The patients/participants provided their written informed consent to participate in this study.

## AUTHOR CONTRIBUTIONS

GK and KA contributed to the conception and design of the study. DS and KA conducted the interviews. DS conducted the qualitative analysis and wrote the first draft of the manuscript. GK, KA, EB, and BR wrote sections of the manuscript. All authors contributed to manuscript revision, read, and approved the submitted version.

## SUPPLEMENTARY MATERIAL

The Supplementary Material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/feduc.2022.866266/full#supplementary-material

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# National Guidelines for Trauma-Aware Education in Australia

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The *National Guidelines for Trauma-Aware Education* in Australia were developed in response to a rapidly growing interest in trauma-aware education across the country and to address the lack of site- and system-level guidance for application of trauma-aware practices in schools and early childhood services. Although research into trauma-aware education was increasing and resources and training and support programs were being developed across Australia, there were no nationally agreed upon guidelines providing consistency to thinking, policy, and practice. Drawing from public health and health promotion models for establishing guidelines for trauma-aware policy and practice, the *Guidelines* were developed through a thorough process of incorporating research evidence and expert and end-user input. The *Guidelines* were developed across 2017–2019 and were finalized in 2021 and provide an important first step in a national response to trauma-aware education in Australia. This article will describe the "story" behind the development of the *Guidelines*. It is hoped that this "story" will help others considering development of systemic resources to inform the establishment and enhancement of trauma-aware policy and practice in schools and early childhood education services.

Keywords: complex trauma, trauma-aware education, *National Guidelines for Trauma-Aware Education*, education sites, education systems

## INTRODUCTION

Australia is a large, geographically and culturally diverse country with a population of over 26 million people. First Nations Australians include two distinct cultural groups, Aboriginal peoples and Torres Strait Islander peoples and within these groups there is great diversity with over 250 different language groups, each with their own culture, customs, laws, and language (Australian Institute of Aboriginal and Torres Strait Islander Studies, 2020). The location of schools and early childhood services across Australia vary from those that are in intensely populated metropolitan regions, to those within provincial or regional cities and towns, to those established in rural areas and very remote communities on the mainland or on islands. At the time of writing, 4,030,717 students are enrolled in 9,581 schools across Australia (Australian Bureau of Statistics, 2021). First Nations students accounted for 6.2% of all students and 326 schools were classified as "very remote" (Department of Education Skills and Employment Australian Government, 2021). Due to the tyranny of distance, very remote schools and early childhood services can lack access to professional services to support children and families and therefore support can be dependent on the capacities of the school and the community.

As happens in any area, some Australian children have been identified as victims of complex trauma through child protection services and interventions and others are yet to be identified.

During 2019–2020, one in every 32 children aged from birth to 17 years received child protection services due to reported or substantiated reports of child maltreatment. Disproportionate numbers were First Nations children and/or live in geographically remote areas and/or live in poverty (Australian Institute of Health and Welfare [AIHW], 2021). These same unfortunate trends are evident in young people under 18 years who are in youth justice supervision due to involvement with crime. Also, more than half of Australian young people in youth justice supervision also have been involved with the child protection system due to reports of maltreatment (Australian Institute of Health and Welfare [AIHW], 2020). Not all young learners who have experienced child maltreatment are identified through child protection processes so the known statistics can be considered an underestimate of the actual numbers of trauma-impacted learners in education settings across Australia. For these reasons, and because Australian ratified the United Nations Convention on the Rights of the Child in 1990 (United Nations International Children's Emergency Fund [UNICEF], 2017) which states that all organizations concerned with children should work toward what is best for each child (article 3) and includes the rights of all children to an education (article 28), a systemic approach to trauma-aware education is highly recommended to enhance the educational and life outcomes of this very vulnerable group of trauma-impacted learners.

Trauma-aware education draws from various bodies of research, including neuroscience describing and analyzing the impact of complex trauma on developing young bodies and brains, to inform a more effective means to educate and support young learners who have lived through complex trauma. Trauma-aware education is also informed by findings from studies examining the long-term health and mental health impacts of Adverse Childhood Experiences (Felitti et al., 1998; Hughes et al., 2017). It is now understood that addressing the potential impact of early adversity across the life course is critical if societies and systems are to address many of their health and welfare expenses and concerns.

A trauma-aware approach to education can address learner concerns associated with both simple and complex trauma. Simple trauma (also known as Type I or acute trauma) involves time-limited, sudden, and unexpected events that are perceived as traumatic by those who experience them and can include trauma experienced as a result of a natural or other disaster (Amin et al., 2020). Although this type of trauma can impact the mental health and wellbeing of children and adolescents for a time, this is often shorter-term and there is lesser risk of victims developing posttraumatic stress symptoms or disorder (Astitene et al., 2020). Complex trauma (also known as Type II or betrayal trauma), is understood as the impact of repeated relational harm experienced by children at the hands of those who should be loving, nurturing, and protecting them (Choi and Kangas, 2020). This trauma can include physical, sexual, and emotional abuse, physical, and emotional neglect, and the experience of family or other relational violence. Neuroscience has explained clearly that this type of harm can have a detrimental impact on developing nervous systems that can lead to an array of relational, emotional, and behavioral symptoms which can impair education and life

outcomes for victims (Kimble et al., 2018). This trauma also involves a greater risk of victims developing posttraumatic stress symptoms or disorder (Astitene et al., 2020).

The worrying events associated with the global COVID-19 pandemic have led to a greater emphasis on trauma-aware education and the role of education sites in supporting learners who suffer the impacts of both simple and complex trauma (Minkos and Gelbar, 2021; Giboney Wall, 2022). Social restrictions, lockdowns, and school closures due to health directives associated with the COVID-19 pandemic have exposed and exacerbated inequalities in income, employment, resources, and supports available to families (Davidson et al., 2020) and have heightened the risk of adverse experiences and outcomes for children and young people living in unsafe home environments (Teo and Griffiths, 2020). The pandemic coincided with the onset or increase in frequency and severity of intimate partner and family violence (Boxall et al., 2020; Kofman and Garfin, 2020). Mechanisms put in place to prevent the virus from spreading left victims isolated with their abusers and separated from vital social services such as courts, therapy, and crisis aid. Economic challenges and alcohol usage increased in families and mental health concerns were exacerbated by the impacts of COVID-19 (Newby et al., 2020; Tran et al., 2020).

In addition to the pandemic, Australia also suffered devastating bushfires, chronic drought, and floods which led to grief, personal and economic loss, and family mental health and wellbeing concerns. Children and young people lost their homes, schools, and sometimes their whole communities in fires. Families in farming communities lost their livelihoods, had to slaughter starving livestock and watch crops wither or be destroyed, and some experienced increased mental illness and suicides (Office of the Advocate for Children and Young People, 2020). The pandemic exacerbated these concerns in many ways, including there being a devastating impact on the capacity for safe and effective parenting and caring of children and young people.

Therefore, it is argued that it may be too simplistic to classify the trauma associated with natural disasters and disease that has recently overwhelmed children and young people as simple trauma, with predictably shorter-term impacts. The lines between the trauma types have truly blurred, due to children and young people experiencing multiple traumatic events and circumstances, the length of time that trauma is experienced, and the harmful impact of traumatic experience on parenting and caring. Despite this blurring of lines, it is important that preventing and addressing complex childhood trauma is emphasized and that organizations (including education sites and systems) continue to address the concerns of the vulnerable and victimized group of children and young people who have experienced complex trauma. Trauma-aware education in Australia and the development of the *Guidelines* became even more imperative within this context.

This approach to education involves is a shift away from more traditional means of managing learner behavior that draw from behaviorist (reward/consequence) methodologies that can lead to behavioral complexities that place learners at increased risk of disengagement from education (Bellis et al., 2018).

It is a shift toward processes informed by neuroscience that develop learner capacities for feeling safe in education settings, for building effective relationships whilst in these settings, and for engaging in emotional self-regulation; three areas that are negatively impacted by the experience of complex childhood trauma (Thompson et al., 2014; Arden, 2019). Trauma-aware education acknowledges that the impacts of child maltreatment can lead to the impairment of cognitive functioning, and thus, negatively impact academic achievement and life outcomes in young victims (Young-Southward et al., 2020; Letkiewicz et al., 2021). Trauma-aware education aims to help educators develop ways of understanding, believing, planning, and acting so that the harm that trauma exerts on the functioning of learners is minimized or alleviated. It aims to improve education and life outcomes not only for trauma-impacted learners, but also for their classmates. It also aims to enhance the personal and professional wellbeing of those adults working hard to deliver inclusive education programs (Christian-Brandt et al., 2020).

Trauma-aware education also acknowledges that the effects of unresolved complex trauma can extend into adulthood such that there can be an unfortunate impact on the capacity for safe and effective parenting, which can lead to the intergenerational transmission of this type of trauma (McDonnell and Valentino, 2016). This has important implications for First Nations learners, their families, and their communities throughout Australia, and indeed, throughout many countries of the world. Not only have these peoples experienced the impacts and associated grief from violent and socially disruptive invasion and colonization of their homelands and the forced removal of their children from families and communities, but also from compounding institutional and interpersonal discrimination, marginalization, racism, and oppression (Zubrick et al., 2005; Heart et al., 2011; Nicolai and Saus, 2013; Kirmayer et al., 2014). Milroy (2005) explains that trauma is transmitted across generations in First Nations communities due to the impact on attachment relationships and parenting and family functioning, the impact on parental physical and mental wellbeing, and the disconnection and alienation of individuals from extended family, culture, land, and society. These effects can be worsened by exposure to continuing high levels of stress including multiple bereavements and personal losses and the process of vicarious traumatization whereby children witness the on-going impacts of trauma that family members have experienced. Unresolved historical and intergenerational trauma continues to add complexity to the education and wellbeing of First Nations children and young people (Atkinson, 2013; Australian Human Rights Commission, 2020; Miller and Berger, 2020).

Addressing impacts on the personal and professional wellbeing of educators, is another important focus for trauma-aware education. The notion that "there is a cost to caring" (Figley, 2013, p. 1) underlies the phenomenon of vicarious trauma suffered by educators, also referred to as secondary traumatic stress or compassion fatigue. This impact can be understood as a negative transformation on the inner sense of professional identity, purpose, and efficacy of educators, that can result from repeatedly using controlled empathy when listening to, or seeing evidence of, the impact of trauma on learners (Borntrager et al., 2012; Fleckman et al., 2022). This secondary trauma can have a worrying impact on the wellbeing and functioning of educators and may require psychological support. However, prevention is better than cure and providing trauma-aware training and support that includes techniques and activity to prevent and address vicarious trauma, can reduce staff wellbeing concerns in this area (Christian-Brandt et al., 2020).

## ENTHUSIASM FOR TRAUMA-AWARE EDUCATION

As in many parts of the world, enthusiasm for trauma-aware practice within education sites is growing across Australia, suggesting increased acknowledgement of the important role they play in addressing the impacts of complex trauma (Chafouleas et al., 2016; Brunzell et al., 2018; Berger, 2019; Berger et al., 2020). It is increasingly acknowledged that schools and early childhood services are critically positioned to support the resolution of complex, psychological trauma suffered by learners through the relational and learning environments they can offer and the amount of time that young learners spend in these environments (Cole et al., 2013; Craig, 2017). Also, these education sites are staffed with professionals who are dedicated to improving education and life outcomes for learners and their work is increasingly informed by inclusive education policies and practices aimed to respond to the needs of learners with a broad array of backgrounds and life circumstances, including the experience and impact of complex trauma (Morgan et al., 2015).

Despite the growing enthusiasm and interest of Australian educators, the implementation of trauma-aware education in Australia can lack systemic governance and support, a trend seen across the globe (Maynard et al., 2019). Without the support and guidance of education systems, trauma-aware activity in education sites is at risk of becoming unsustainable in the longer-term. In response, the *Guidelines* include guidance statements for both education sites and education systems.

## THE CONUNDRUM: IS TRAUMA-AWARE EDUCATION EVIDENCE-BASED?

Although there has been growth in uptake of trauma-aware education, systematic research reviews suggest that this approach to education may not yet have a solid enough evidence-base to justify broad implementation. These reviews investigate studies that evaluate trauma-aware education interventions. They suggest that there is evidence that interventions can reduce trauma symptoms for learners and/or enhance learnings of educators but that there is concern regarding the quality of the evidence, mainly due to a lack of rigor in research method and inconsistency in approach within studies. Common concerns regarding inconsistency include wide variation in the components and aims of interventions being evaluated and outcomes being measured and a lack of a consensus in terminology

used to describe aspects of interventions (Berger, 2019; Maynard et al., 2019; Fondren et al., 2020; Stratford et al., 2020).

In their systematic review, Maynard et al. (2019) concluded that to justify trauma-informed approaches in schools there is a significant need for more rigorous research using conventional methodologies. To be included in their review, studies needed to include a randomized controlled trial or a quasi-experimental design in which outcomes for learners accessing a trauma-aware intervention were compared with those on a wait-list, or those receiving no treatment, treatment-as-usual, or an alternative treatment. School interventions also needed to include two of three pre-defined aspects; "workforce development, trauma-focused services, and organizational environment and practices" (p. 1) and studies had to measure learner outcomes that considered trauma and/or mental health symptomology, academic performance, behavior, and social and/or emotional functioning. The research team found no studies that met their rigorous inclusion criteria. However, Maynard et al. (2019) state that while caution is warranted when moving forward, this "does not preclude schools from continuing to implement evidence-informed programs that target trauma symptoms in youth, or that they should wait for the research to provide unequivocal answers" (p. 3). They suggest that:

> The adoption of a trauma-informed approach is relatively new and it is likely that there has not been sufficient time for the research to catch up to the enthusiasm for this approach in schools. Furthermore, conducting rigorous research on multi-component and multi-tiered approaches can be complex and expensive, often requiring large grants to help fund the research, which can also delay the conduct of rigorous research (Maynard et al., 2019, p. 12).

Adopting a more expansive search strategy, Stratford et al. (2020) reviewed 91 publications examining trauma-aware interventions in schools. They acknowledge that research is increasingly examining the effectiveness of trauma-aware education and schools are increasingly adopting trauma-aware education and that both should continue. However, they note a lack of evaluations of whole-school approaches and of interventions by non-clinical personnel. They suggest that it is challenging for schools to find and implement effective interventions and recommend that quality research is made more easily accessible to schools and policymakers to overcome this concern.

In their systematic review of multi-tiered, trauma-aware school interventions, Fondren et al. (2020) suggest there is "strong evidence for the feasibility" (p. 15) of whole-school interventions in which support increases across tiers depending on the needs of learners. A tiered approach to trauma-aware education includes proactive, whole-of-school trauma-awareness and trauma-aware practice (tier one), targeted trauma-aware interventions and practices for particular groups (tier two), and intensive interventions and support for individual learners whose education experience is significantly impaired as a result of their experience of trauma (tier three) (Rawson, 2020). However, in their examination of 62 peer reviewed studies,

Fondren et al. (2020) did not find clear evidence of rigorous evaluations of multi-tiered support systems, suggesting that interventions often focused on tier three. They also raise concerns regarding the design of studies that profess the success of school-based interventions, as they tend to have inadequate randomization of participants, a lack of blinding of participants and/or assessors, and a resulting risk of selection bias. In her systematic review of multi-tiered approaches to whole-school trauma-aware education, Berger (2019) also highlighted the need for improved consistency in research methods and interventions.

Despite these concerns expressed within systematic reviews, it may be important to question whether it is appropriate to restrict the design of studies evaluating implementation of trauma-aware education to only those considered as "gold standard" or those that use experimental or quasi-experimental research methodologies. There may be ethical implications when applying strict research requirements to studies, particularly when experimental designs allocate participants to control or treatment groups, leading to some trauma-impacted learners being denied access to interventions (Zakszeski et al., 2017; Chafouleas et al., 2019). There are concerns with using data from short-term studies, as it is known that recovery from the impacts of complex trauma can be a long journey for many young people. There are concerns when deciding what aspects to examine or track in studies; should this be learning outcomes, behavior outcomes, or the capacity for relatedness, empathy, or emotional regulation? There are certainly concerns with minimizing data collection to the more usual items of interest to schools, for example, academic outcomes, attendance, or the frequency of disciplinary responses such as suspension or detentions. There are concerns with waiting for findings from longitudinal studies when so many young learners are needing help now. Overall, it can be ethically challenging to wait for a substantial evidence-base that demonstrates the effectiveness of trauma-aware education interventions in remediating the impacts of trauma on learners.

It was this conundrum of needing a more robust evidence-base, but feeling it was not appropriate to wait for this evidence-base to emerge, that drove the development of the *Guidelines* in Australia. It was decided that the abundance of scientific research examining the neurobiological impacts of complex trauma on child and adolescent development and the steadily increasing qualitative evidence of the success of trauma-aware interventions in schools was enough to inform the initial development of the guidelines. Studies have clearly described the impacts of complex trauma and provide evidence that education settings can address these impacts by being inclusive and trauma-aware, by focusing on developing learners' capacities for relationships and emotional regulation, and by schools and educators being perceived by learners as safe (Dorado et al., 2016; Stokes and Turnbull, 2016).

The *Guidelines* were developed despite, and also in response to, the lack of a robust evidence-base for trauma-aware interventions in education settings. It became clear that the concerning impact of trauma on young learners is an issue requiring a significant, national response and that this response should not be delayed. This was seen as an important initial step in a national response to enable all schools, early childhood

services, and education systems in Australia to trust, commence, consolidate, and expand effective trauma-aware practice.

## DISCUSSION

### Development of the Guidelines

The development of the *Guidelines* drew initially from research examining the need for a systemic, state-wide framework for trauma-aware schooling in the state of Queensland, Australia (Howard, 2019). This research identified key bodies of work and organization that would be recommended for a systemic approach to support all schools to deliver trauma-aware education across Queensland. It was identified that if system practice and policy continued to prioritize behaviorism-informed approaches to respond to the needs and concerns of trauma-impacted learners, they would not only inhibit implementation of trauma-aware practices but could actually reinforce or compound the trauma suffered by these learners. Findings were then further analyzed to develop a second set of recommendations for individual schools to implement trauma-aware frameworks and practices. These two lists of recommendations for Queensland education sites and systems informed the initial development of the *Guidelines*.

At the time of this initial research, a dual approach to trauma-aware education that addressed recommendations for education sites and systems, was both novel and needed in Australia (Howard, 2019). Too often were individual educators who had received training in trauma-aware education, stifled by a lack of trauma-awareness in their site leaders. Too often, was the work of trauma-aware site leaders stifled by a lack of trauma-awareness within their supervisory education systems. There was a growing international impetus to address the impact of complex trauma in both education sites and systems, but a systemic approach was lacking in Australia. The development of the *Guidelines* was in response to this concern.

As there were no established, rigorous protocols for developing guidelines specific to education sites and systems, it was decided that the *Guidelines* would draw initially from protocols used within the field of public health. The developers of the *Guidelines* were comfortable with using public health protocols due to trauma-aware practice being significantly informed by health and medical research, including (as examples) the Adverse Childhood Experiences study (Felitti et al., 1998) and the abundance of evidence from the fields of neuroscience (Bick and Nelson, 2017; Kimble et al., 2018) and epigenetics (Nugent et al., 2016). Public health guidelines are typically developed by translating a systematic synthesis of research evidence into a series of recommendation statements. These statements are externally reviewed and revised by experts in the field, followed by end-user engagement with draft guidelines through a consultation and review process (World Health Organization [WHO], 2012). In their review of research evidence uptake by schools, Clinton et al. (2018) encourages education contexts to adopt public health protocols for guideline development. They suggest that these protocols have been comprehensively evaluated and can lead to the development of guidelines that

are of good quality, are easy to implement, and that yield knowledge that is actionable. In alignment with these protocols, the steps for developing the *Guidelines* involved (1) exploring and then synthesizing evidence into recommendation statements, (2) review of recommendation statements with experts in the field, and (3) broad consultation with end-users.

### Exploring and Synthesizing Evidence

The Queensland study (Howard, 2019) and the *Guidelines* (Queensland University of Technology and Australian Childhood Foundation, 2021) drew from a thorough review of research and other literature examining child and adolescent development, the prevalence and impact of adverse childhood experiences, the longer-term biomedical and intergenerational consequences of complex trauma, and developmental resilience (Felitti et al., 1998; Atkinson, 2013; Masten, 2016; Nugent et al., 2016). It was acknowledged that this rapidly growing body of knowledge had been revolutionizing practice in many areas, including health and mental health, social services, youth services, and youth justice, and was beginning to have a growing impact in education (Hanson and Lang, 2016; Cutuli et al., 2019).

The development of the *Guidelines* was also informed by a growing amount of research examining outcomes of trauma-aware education interventions, with a particular focus on qualitative studies drawing from the "voices" of end-users (Lewin and Glenton, 2018). An example that highlights the value of including qualitative data, is a study by Herman and Whitaker (2020) where they refer to "reconciling mixed messages from mixed methods" (p. 1). In a cluster randomized-control study examining outcomes from a training course in trauma-aware practice for preschool teachers, quantitative survey data suggested no impacts in the professional growth of participants. However, qualitative data from subsequent focus group interviews revealed meaningful, and at times, transformative change in the practice of teachers. Other examples of studies using this type of data include interviews with teachers regarding their trauma knowledge and response in schools (Berger et al., 2020), teacher perceptions of their work in trauma-impacted classrooms (Brunzell et al., 2016, 2018), case studies of school counseling models (Costa, 2017), inclusive education (Morgan et al., 2015), and recognizing trauma in the classroom (Bell et al., 2013). Lewin and Glenton (2018) encourage the use of qualitative data that draws from the "voices" of end-users to inform the development of guidelines due to the importance of representing the views and experiences of stakeholders that is not reduced to numbers and statistics. It is crucial for data collection to allow for adequate expression of views that are important to stakeholders working on behalf of vulnerable and marginalized groups.

### Consulting With Experts in the Field and End-Users

The next step in the development of the *Guidelines* involved focused consultancy with key experts in the field of trauma-aware education in Australia. Key experts included three leaders of non-government organizations that delivered trauma-aware

education services in Australia. Key experts discussed *Guideline* development with the authors and then provided feedback on an initial draft of the *Guidelines* that informed an updated draft.

This step was followed by broad consultation with end-users (*n* = 337). This process was supported by a collaboration between the Queensland University of Technology (QUT) and the Australian Childhood Foundation (ACF), the latter being a large, national organization that focuses on addressing the impacts of complex childhood trauma. End-users included school and early childhood educators; education system leaders; child, adolescent, and family support specialists (sourced through the ACF mailing list); delegates from the 2019 national *Trauma-Aware Schooling Conference* in Australia; and post-graduate education students. End-users responded voluntarily and anonymously to an on-line questionnaire by identifying their professional role and then reviewing each of the proposed guidelines. They identified if they agreed with, disagreed with, or were unsure about each guideline and these responses provided quantitative evidence of overwhelming support for each guideline. End-users were also given the option of providing an open comment about each guideline and a general overall comment, allowing them to explain or extend their responses or express their opinions. This qualitative information illustrated that educators were keen to develop policy and practice to better support and educate trauma-impacted learners, as evidenced in the comments below.

> *Education is the key to supporting children who experience complex trauma. Schools are often the only 'safe' place for the child.*

> *It is vital for school staff from the principal down to develop a culture that understands the impact of trauma on their students. By creating a safe and supportive environment for students suffering trauma will provide them with the stability and sense of safety they need to achieve positive academic outcomes. If a child is too busy surviving their ability to learn is severely impacted.*

Professionals working in child and adolescent support organizations were keen for education sites and systems to understand the dynamics arising from complex trauma and for them to adopt trauma-aware practices to better support and educate their young clients. The following comment illustrates this view.

> *Most schools do not appear to have an understanding of the needs of traumatised children or how to provide a trauma aware program. Even when they have some awareness it appears to be superficial, and they do not seem to have the time/money/resources to properly implement trauma informed practices. It will require a major investment in training and staff time to change this. In my experience they mostly just react to behaviour and take a disciplinary approach.*

Overall, respondents seemed very supportive of a systemic response to trauma-aware education as illustrated in the following comments.

> *This is an extremely important area of education that needs to be embedded into our training, procedures, policies and systems from the very top (Minister for Education) right down to the children we educate.*

> *Training, and more training, both at university and in the workplace. Too many teachers and support staff have no knowledge on how to best support a student at risk.*

Interestingly, the "voices" documented in the body of qualitative research synthesized to inform the *Guidelines* often echoed the sentiments expressed by the end-users consulted during the development of the *Guidelines*.

The *Guidelines* are available *via* the ACF and QUT websites and a number of government and non-government education websites throughout Australia. The *Guidelines* have also been distributed through education conferences and other events in Australia. The authors encourage readers to access the formal copy of the *Guidelines* (Queensland University of Technology and Australian Childhood Foundation, 2021) for further detail.[1] Further review of the *Guidelines* are future priorities for the authors as more research evidence emerges, and as end-user engagement with the *Guidelines* continues. For the purposes of this article and for the convenience of the reader, the following section will briefly explain the ten guidelines for education sites (schools and early childhood services) and the ten guidelines for education systems with the *Guidelines*.

## Ten Guidelines for Education Sites

Guideline one suggests that training processes are needed to ensure leaders of education sites are trauma-aware, as those who are not are less likely to support trauma-aware education thinking and processes at their sites. Alternatively, leaders who are trauma-aware are far more likely to recognize the benefits of trauma-aware education and support educational reform (Stokes and Brunzell, 2020).

Guideline two recommends that schools and early childhood services engage in high quality whole-of-staff training in trauma-aware education. This guideline recognizes that the mode and intensity of training may differ according to site requirements and available training structures but that this should not limit or deny any site from access to training. It suggests that, where possible, education sectors (districts, regions, dioceses, etc.) should develop internal training structures (i.e., personnel dedicated to this work) to provide training to sites and that these should incorporate sustainability measures (such as ongoing resourcing and staff recruitment) to enable the consistent availability of quality training (McIntyre et al., 2019; Berger and Samuel, 2020; Espelage et al., 2020).

Guideline three recommends that education sites clearly identify learners living in out-of-home care and ensure that trauma-aware processes (such as case management, support planning, strategies to help with building relationships and managing emotional regulation) are available to support these learners. This guideline acknowledges that learners who have lived through complex trauma and who have been removed from the homes of biological carers, have additional needs that must be

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[1]*National Guidelines for Trauma-Aware Education* (Queensland University of Technology and Australian Childhood Foundation) https://eprints.qut.edu.au/207800/1/National_Trauma_Aware_Guidelines_web_version_2021.pdf.

identified and responded to by education sites in a trauma-aware manner (Bailey et al., 2019).

Guideline four suggests that trauma-aware education practice is appropriate for all learners as it is deemed an inclusive practice that can be supportive and beneficial for any learner. Inclusive education practice suggests that all learners, including those who are living with the outcomes of complex trauma, should be able to access and fully participate in learning alongside their similar-aged peers. Through trauma-aware education becoming a whole-of-site practice available to all learners, it is more likely that (identified and not-yet-identified) trauma-impacted learners will have access to appropriate and informed support (Berger, 2019).

Guideline five emphasizes that sites should develop constructive working relationships with parents and carers of learners who are living with the outcomes of complex trauma. Whilst it is acknowledged that this can be challenging at times, for a range of reasons, it is also acknowledged that respectful collaboration between homes and education sites can enhance the quality and consistency of trauma-aware practice (Langley et al., 2013). It is also recommended that schools and services should develop similar working relationships with organizations and people delivering foster care and residential care programs (Bailey et al., 2019).

Guideline six suggests that schools and early childhood programs develop constructive working relationships with support agencies and specialists who provide services to their learners. This guideline proposes that aligning education practice with the trauma-aware interventions delivered by these professionals will enhance outcomes for learners impacted by complex trauma. Case management collaborations between education sites and providers of health, mental health, child protection, and youth justice services (as examples) can be enhanced when educators understand the neurobiological impacts of complex trauma and trauma-aware means to address this harm (Krishnamoorthy and Ayre, 2021).

Guideline seven advocates for children and young people to be involved in the design and evaluation of trauma-aware supports that seek to meet their needs. This guideline acknowledges that the participation of young learners in feedback processes meets children's rights principles (United Nations Commission on Human Rights, 1989) and can have therapeutic benefit (Anderson, 2016). This provision of information and evaluative feedback could also include retrospective input from past learners who are now adults.

Guideline eight recommends the implementation of whole-of-school or whole-of-service frameworks. These frameworks should address the needs of learners living with the outcomes of complex trauma, be also appropriate for and supportive of all learners, be protective of the professional and personal wellbeing of educators, and build capacity in the resilience of educators. These frameworks should be inclusive of all adult staff members to ensure consistency of practice. A multi-tiered approach to whole-site practice is recommended where support increases

across tiers depending on the needs of learners (Berger, 2019; Fondren et al., 2020; Stratford et al., 2020).

Guideline nine asks schools and early childhood services to acknowledge the potential impact that supporting traumatized learners can have on educators and other site personnel and recommends measures to provide support, supervision, and reflective practice to prevent or address such impact. It is proposed that this can minimize educator attrition rates and address concerns with the impact that supporting trauma-impacted learners can have on the personal and professional wellbeing of educators. It is suggested that unless education sites maintain the wellbeing of educators, the wellbeing of trauma-impacted learners will suffer (Baweja et al., 2016; Luthar and Mendes, 2020).

Guideline ten proposes that policies developed by individual schools and early childhood services should be reviewed to identify and address elements that might enhance or hinder trauma-aware education. School policies (particularly those that focus on learner behavior) are very powerful documents and the structure of these documents and the wording within these documents can have significant impact on decisions made about individual learners. After personnel in a school or early childhood service are trained in trauma-aware education principles, it is helpful to form a committee of trauma-aware staff members to review policy and to present recommendations to school leadership. Policy review does not need to result in the exclusion of content that works well for most students. However, it might result in additional or modified content, so that policy is inclusive and supportive of trauma-impacted students (Bowen and Murshid, 2016).

## Ten Guidelines for Education Systems

Similar to the guidelines for education sites, the first guideline emphasizes leadership. It recommends training processes are needed to ensure leaders of education systems are trauma-aware and acknowledges that effective trauma-aware education practice relies on informed and supportive system leadership to develop policy and funding frameworks to support and resource the embedding of trauma-aware practice in education systems (Biddle and Brown, 2020; Stokes and Brunzell, 2020).

Guideline two emphasizes that education system law and policy should be reviewed to identify and address elements that might enhance or hinder trauma-aware schooling. This guideline recognizes that education law and policy at all systemic levels should be scrutinized to ensure that they are not inhibiting a trauma-aware response and hopefully provide the scope to develop and enhance trauma-aware education across sites and systems (Bowen and Murshid, 2016).

Guideline three suggests that trauma-aware education at a system level should be supported by a long-term implementation strategy that is committed to by governing bodies and by governments. As the evidence from neuroscience explains that addressing the impact of complex trauma needs a long-term and consistent, trauma-aware approach, this guideline states that a long-term and committed response by governing bodies and governments is vital (Bowen and Murshid, 2016).

Guideline four identifies that a trauma-aware approach at a system level must take account of the cultural and geographic diversity of Australian states and territories, as well as the varying needs of sites and their communities. This guideline recommends systems consider the contextual circumstances of education sites servicing various places, communities, cultures, and learners (Miller and Berger, 2020; Frankland, 2021).

Guideline five states that a trauma-aware approach should be developed in consultation with First Nations peoples and leaders to ensure the cultural strength of the approach. There are important and powerful learnings regarding the impact of historical trauma on generations of Indigenous peoples throughout Australia and the world, that need to be considered in a trauma-aware education response (Zubrick et al., 2005; Heart et al., 2011; Nicolai and Saus, 2013; Kirmayer et al., 2014; Miller and Berger, 2020).

Guideline six proposes that specific consideration is needed for some education sites. These include (but are not limited to) those:

(a) in remote locations that can often become the main source of support for the mental health and wellbeing needs of learners in isolated locations (Frankland, 2021).

(b) that include boarding accommodations where staff need to understand the impact of trauma and to help learners with transition to boarding school, homesickness, racism, cultural needs, and the capacity to feel safe, to emotionally regulate, and to build relationships with others (Lloyd and Pwerl, 2020).

(c) that offer alternative or specialist education programs supporting learners who are not attending mainstream schools due to disengagement or behavioral concerns and who require the support of trauma-aware education programs (Brend et al., 2020).

(d) servicing learners from refugee backgrounds whose families may have fled their home country due to persecution and may have experienced concerns including violence, family separation, exploitation, military recruitment, and trafficking (Baak et al., 2020; Lamb, 2020).

(e) servicing learners living in out-of-home care due to child safety concerns (Australian Institute of Health and Welfare [AIHW], 2021).

(f) servicing learners with disabilities and/or mental health concerns as it is becoming increasingly clear that learners with developmental disabilities are prone to the experience of complex trauma (for many reasons) and the experience of complex trauma can lead to worrying mental health concerns (Kliethermes et al., 2014; Fogler and Phelps, 2018).

Guideline seven recommends that cross-agency (government and non-government) funding and staffing of training and support programs be investigated as a cost-effective strategy for enhancing outcomes for learners accessing a number of services. This collaborative approach could draw from the knowledge, experience, and talents of people working in a range of organizations to deliver support services that are more informed, holistic, and effective. This approach could also lead to shared resource development and provision that could allow for the sharing of costs and inputs of personnel, that could enhance outcomes for trauma-impacted learners (Barton et al., 2012).

Guideline eight suggests that collaborations between education systems and universities and other tertiary training programs could help with training provision, resource development, program evaluation, and further research (Brown et al., 2020). Importantly, providing pre-service and post-graduate education options for educators on trauma-aware education is a key strategy for generating knowledge, expertise, and leadership in this area.

Guideline nine builds on the previous guideline by suggesting that the education system ensure trauma-aware principles and implementation strategies be incorporated into pre-service training and ongoing professional development for both school educators and any support practitioners in education settings. This holistic approach to training would help to ensure consistency of approach throughout education sites (McIntyre et al., 2019; Berger and Samuel, 2020; Espelage et al., 2020).

Guideline ten states that education reform in trauma-aware education should be quarantined from political and leadership change. This guideline suggests that a systemic approach should not cease or be impacted by changes in political, organizational, or site leadership and processes should be established to prevent this. Achieving this aspirational guideline would no doubt require further advocacy, discussion and then decision-making within education systems (Greig et al., 2021).

## CONCLUSION

The *National Guidelines for Trauma-Aware Education* were released in January 2021 as an informed support for education sites and systems in Australia to enhance education and life outcomes for trauma-impacted learners. The *Guidelines* include recommendation statements that are informed by a synthesis of research and expert and end-user consultation. The *Guidelines* are not fixed, but rather have the capacity for modification and enhancement according to ongoing findings from research and the future "voices" of practitioners, policy makers, and important stakeholders for whom a trauma-aware response truly matters. For example, future consultation should involve more inclusive and representative data from the voices of a broader group of important stakeholder groups. These groups could include (as examples) First Nations community leaders and members, families of children and youth, and children and young people in education settings.

As no social or cultural group is immune from the impact of complex trauma and the prevalence of this trauma is significant and of growing concern, it is timely for all Australian education sites and systems to establish trauma-aware education policies and processes, so that all educators can contribute to minimizing the serious and longer-term impacts of complex trauma for young Australians. The *National Guidelines for Trauma-Aware Education* provide an important initial step for a

systemic approach to education policy and practice development across Australia.

## AUTHOR'S NOTE

Throughout this article:

a)  the term "trauma-aware" can be considered as synonymous with similar terms such as "trauma-informed," "trauma-sensitive," "trauma-healing," or "trauma-reducing." The authors acknowledge that the terms used by authors and researchers can vary for important reasons, but the term "trauma-aware" will be used in this instance to align with other work led by the authors, including the National Guidelines that are discussed in this article.

b)  the term "learners" can be considered as inclusive of children from birth to approximately 18 years who are attending early childhood services and schools.

c)  "Education sites" refers to places where education occurs during early childhood and schooling years and "education

systems" refers to organizations that govern the delivery of education in education sites.

d)  the "National Guidelines for Trauma-Aware Education" may be referred to in full or alternatively as the "Guidelines."

## ETHICS STATEMENT

Ethical review and approval was not required for the current study in accordance with the local legislation and institutional requirements. Written informed consent for participation was not required for this study in accordance with the national legislation and the institutional requirements.

## AUTHOR CONTRIBUTIONS

All authors listed have made a substantial, direct, and intellectual contribution to the work, and approved it for publication.

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# Building Trauma Informed Teachers: A Constructivist Grounded Theory Study of Remote Primary School Teachers' Experiences With Children Living With the Effects of Complex Childhood Trauma

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The experiences of remote teachers who work with children living with the effects of complex childhood trauma is under explored. Children from remote areas of Australia are vulnerable to complex childhood trauma as their communities can face the effects of colonization, higher rates of disadvantage and exposure to potentially traumatic circumstances, such as natural disasters and family and community violence. This is compounded by the tyranny of distance in accessing effective supports. In such contexts, the roles of schools and teachers in addressing the debilitating impacts of trauma are both vital and amplified. This article summarizes a qualitative study, incorporating constructivist grounded theory, that generated a new theory to explain social processes that teachers in remote schools undergo when working with the effects of complex childhood trauma. Data were collected from teachers in individual interviews (n = 23) and a focus group. Data were analyzed using constant comparative method, emergent themes were categorized, leading to the development of the grounded theory, *Building Trauma Informed Teachers*. This overarching theory consists of seven categories. This study contributes insights into the scope and nature of the work of teachers in remote schools and recommends ways in which cognate systems can prepare and support teachers for their professional work supporting and educating trauma-impacted children.

Keywords: trauma informed practices, complex childhood trauma, remote, teachers, experiences

## INTRODUCTION

Although remote communities around the world are idiosyncratic due to their location, geography, norms, and cultures, they have one thing in common: all remote communities need teachers. This paper presents *Building Trauma Informed Teachers* as a new theory, built on teachers' accounts of their experiences. It sheds light on what is needed to prepare and support teachers educating children in remote communities who live with the effects of complex childhood trauma. Complex childhood trauma is understood as arising from a child's exposure to multiple, severe, and adverse interpersonal events and circumstances in the childhood years

(National Child Traumatic Stress Network [NCTSN], 2014). These conditions are known to have a pervasive effect upon children's development and educational and life outcomes (Cummings et al., 2017; Mehta et al., 2021; Downey and Crummy, 2022).

The research reported here was conducted in Australia. Children growing up in Australia's remote communities are more socio-economically disadvantaged, and experience higher rates of trauma than their urban counterparts (Australian Institute of Health and Welfare [AIHW], 2019a, 2020; Maguire-Jack et al., 2020). They have a higher frequency of exposure to natural disasters (cyclone, floods, drought, bushfires), greater exposure to domestic and family violence, and more involvement with child protection systems (Mitchell et al., 2013; Roufeil et al., 2014; Menec et al., 2015; Goodridge and Marciniuk, 2016; Australian Institute of Health and Welfare [AIHW], 2020). Children impacted by trauma who live in remote communities have the additional challenge of having limited access to support services and teachers may be the only professionals available to assist (Evans et al., 2008; Chafouleas et al., 2016).

These conditions are complex and dynamic, and intertwined with the effects of colonization, dispossession and assimilation which led to the destruction of traditional family units in Australia's remote communities and has resulted in intergenerational trauma (Atkinson, 2002; Menzies, 2019; Curthoys, 2020; Meyer and Stambe, 2020). Intergenerational trauma has been defined as trauma that "occurs when parent figures who experienced trauma transmit the effects of their trauma to their children via interactional patterns, genetic pathways and/or family dynamics" (Isobel et al., 2021, p. 632). It is one of the many challenges faced by First Nation peoples in countries such as Australia, Canada, New Zealand, and the United States (Brokenleg, 2012; Atkinson, 2013; Substance Abuse and Mental Health Services Administration [SAMHSA], 2014; Kezleman et al., 2015; Isobel et al., 2021). First Nations peoples are disproportionally represented in populations living in remote communities. For example, in Australia, people identifying as Aboriginal or Torres Strait Islander make up 3.3% of the Australian population overall yet comprise up to 47% of the populations in remote communities (Australian Institute of Health and Welfare [AIHW], 2019b).

Children impacted by trauma in remote communities may arrive at school with elevated stress levels and associated challenges with self-regulation and attention which are known to impede the capacity to learn (Howard, 2013; Mehta et al., 2021). They may not feel safe in classrooms (Sitler, 2009; O'Neill et al., 2010; Shalka, 2015) which can result in challenging behaviors that can impact the learning of other children (Porche et al., 2011; Howard, 2013; Ban and Oh, 2016; Brunzell et al., 2016). These behaviors can be frequently misunderstood by teachers if they are not well informed about the impact of trauma and effective responses (Goodman et al., 2012; Howard, 2013; Bonk, 2016).

There is a common rhetoric that "teachers are best placed to respond in a therapeutic manner" (Collier et al., 2020, p. 2) yet in distilling the limited extant literature on supporting teachers who work in a remote community with high numbers of children living with the effects of complex childhood trauma, three key

findings suggest otherwise. First, due to a lack of support services, teachers in remote schools can be categorized as "first responders" (Ko et al., 2008, p. 399), akin to police and ambulance officers and other frontline workers (Ko et al., 2008). As with all first responders, the wellbeing of teachers can be compromised if they do not have the knowledge, skills, experience, and support to adequately execute their role. Second, teachers assigned to work in remote schools are often new graduates or have been teaching for no more than five years (Richards, 2012; Luke et al., 2013; Hazel and McCallum, 2016; Willis et al., 2017; Moffa and McHenry-Sorber, 2018; Weldon, 2018; Young et al., 2018). Many of these early career practitioners have grown up in cities and towns and studied in metropolitan universities, have predominantly white, middle-class backgrounds, and have had "little interaction with people of other ethnicities and social class" (Brasche and Harrington, 2012, p. 110). Third, these teachers report being "ill prepared" (Hall, 2013, p. 188) to effectively teach and respond to behavior of children living with the effects of complex childhood trauma (White and Reid, 2008; Richards, 2012; Hall, 2013; Heffernan et al., 2016). This can be exacerbated if they hold preconceived ideas and biases around their students and their families and communities (Hobbs et al., 2019; Brown et al., 2020).

Clearly teachers working in remote communities need preparation and support to effectively educate children living with the effects of complex trauma. Initial teacher education programs face a formidable task in doing this (Stahl et al., 2020) and teachers need ongoing support and training from their employing authorities. Criticism has been directed towards teacher education programs for failure to foster the type of practical skills needed to work in schools with children affected by trauma (Koenen et al., 2021). These factors make addressing trauma in remote communities "complex and multilayered" (Kreitzer et al., 2016, p. 50) and highlight why research with teachers working in remote communities is long overdue.

This paper reports on a doctoral study that was conducted in Australia with teachers working in remote communities. The aim of the study was to capture and theorize the ways in which teachers in remote primary schools experience their work with children living with the effects of complex childhood trauma, with a view to informing university curriculum and education governance systems for initial teacher education and continuing professional development. The study used constructivist grounded theory (Charmaz, 2014) which is commonly utilized to investigate the lived experiences of participants (Karpouza and Emvalotis, 2019; Aburn et al., 2021; Causer et al., 2021; Hood and Copeland, 2021; Williams et al., 2021).

## MATERIALS AND METHODS

This study used constructivist grounded theory (Charmaz, 2014) to examine remote primary school teachers' experiences with children living with the effects of complex childhood trauma. Constructivist grounded theory is suitable for research on topics where there is limited existing research, and no theoretical framework available to guide data collection and

analysis (Charmaz, 2014). A constructivist approach is based on the notion that a researcher constructs rather than discovers theories (Charmaz, 2014). It focuses on understanding peoples' realties and how they construct these realities (Keane, 2015). Importantly, an outcome of constructivist grounded theory is that the theory developed "offers an interpretive portrayal of the studied world, not an exact picture of it" (Charmaz, 2006, p. 10).

Approval to conduct the research was granted from the Queensland University of Technology Human Research Ethics Committee (Approval number: 1800000177). Approval was also obtained from the relevant state education department for permission to approach schools for participation in this study. Participants provided specific written informed consent prior to data collection.

## Participants

Participation was invited from teachers in remote primary schools. Exact participant numbers for a grounded theory study are debated (Morse, 2000; Marshall et al., 2013; Charmaz, 2014; Boddy, 2016). Although Charmaz (2014) suggests the appropriate number of participants depends on the purpose of the research and the "analytical level to which the research aspires" (Charmaz, 2014, p. 106), other proponents recommend 20–30 participants to ensure a well saturated theory (Morse, 2000; Creswell, 2013; Marshall et al., 2013).

In grounded theory research, "initial sampling" (Gentles and Vilches, 2017, p. 2) establishes the criteria for and plans how data will be collected from participants (Charmaz, 2014; Gentles and Vilches, 2017). In this study, the criteria for participation were straight forward: participants were to be primary school teachers employed in remote communities who self-identified that they were working with children living with the effects of complex childhood trauma.

Twenty-three participants agreed to participate in the study. The majority of participants were female (87%), aged under 40 years (60%), early career teachers (52%), in their first five years of teaching in a remote school (69%). Most had received professional development about complex childhood trauma (74%) and were developing confidence in implementing trauma informed practice (83%). Four participants identified as having either an Aboriginal and/or Torres Strait Islander background. Participants were employed in schools with enrolment numbers ranging from less than 30 to more than 400 students, of whom 19–89% were Indigenous (Australian Curriculum, Assessment and Reporting Authority [ACARA], 2018). Participants worked in schools that had lower than average levels of student socio-economic advantage (Australian Curriculum, Assessment and Reporting Authority [ACARA], 2015).

## Procedure

Data were gathered in audio recorded 50–60 min, semi-structured interviews with each participant (Charmaz, 2014) by the first author. Prior to the commencement of formal data gathering, a pilot study was conducted with two primary school teachers who were not working in the schools participating in the research, but who had experienced working with children living with the effects of complex childhood trauma. Feedback from

the pilot study informed the formulation and implementation of final interview questions, interview technique, and memo writing (Weiss, 1994; Silverman, 2010). Interviews spanned June to November 2018 and were conducted face-to-face. Participants were asked to respond to questions such as, "Describe some of your work with children at school who are living with the effects of complex childhood trauma" and "How does living and working in a school in a rural and remote area influence how you work with children living with the effects of complex childhood trauma?" During interviews, field notes were taken and after each interview researcher's reflections were recorded. Reflections included thoughts from the interview, and interview technique, and these formed the basis of researcher memos. In keeping with constructivist grounded theory, after each interview, interviews were transcribed line-by-line and data were de-identified.

## Data Analysis

In grounded theory research, data analysis is iterative, non-linear, and messy, and demands that the researcher is emersed in the data (Charmaz, 2014).

The first cycle of coding involved initial and in vivo coding. According to Charmaz (2014), initial line-by-line coding of interview transcripts enables the researcher to see the participants' world view with some degree of objectivity (Saldaña, 2013; Charmaz, 2014). Initial coding allowed for the early categorization of data (Charmaz, 2014) and provided preliminary directions for constant comparison and the defining of meanings (Charmaz, 2011). During line-by-line coding, "gerunds" (Charmaz, 2014, p. 120), and in vivo codes were identified (Charmaz, 2014). Gerunds are expressed as the noun form of verbs ending in "ing" (e.g., "burning out" for "burnt out" (IP1)) and are used in constructivist grounded theory to represent "a strong sense of action" (Charmaz, 2014, p. 120) and make connections between the codes implicit (Charmaz, 2014). In vivo codes are used to capture important terms used by participants and highlighted the behaviors or processes explaining how the "basic problem of the actors is resolved or processed" (Strauss, 1987, p. 33) (e.g., "even in you have students that are super academically low, you still have those high expectations for them to be providing work as well" (FGP1)).

The second cycle of coding involved assigning focus codes and developing categories. Initial coding was followed by a second cycle of coding in which focused codes and categories were developed in a process of comparing "thematic or conceptual similarities" (Saldaña, 2013, p. 209). It involved long engagement with the data which enabled the researcher to develop in-depth knowledge of the data leading to the development of categories rather than merely labelling key topics that participants had discussed (Charmaz, 1983). After categories were identified, diagrams and memos were used to identify the properties, or defining characteristics, of each category (Charmaz, 2014). Several further evolutions ensued to gradually refine theoretical codes and bring these into sharper focus. For example, in the first evolution, analysis relied solely on the guiding questions from the interview schedule to determine initial categories. In the second evolution constant comparative analysis was used and categories were named using gerunds (Charmaz, 2014). In the third

evolution categories expressed as gerunds were conceptualized as strategies teachers were explaining they had used which enabled further refinement. In the fourth evolution, further memoing, diagramming of relationships between categories and constant comparison of the data (Glaser and Strauss, 1967) resulted in the further refinement of categories.

## Theoretical Sampling

Theoretical sampling is a grounded theory method for "checking out hunches and raising specific questions" (Charmaz, 1983, p. 125) about developing properties, categories, and theoretical codes (i.e., identifying and encapsulating the overall theory, grounded in the data). In this study, theoretical sampling was used to test the authenticity and credibility of tentative research findings, and to expand data collection if participants identified further details not already captured in individual interviews. This was undertaken in a 90-min focus group with seven of the original 23 interview participants who agreed to attend. Thereafter, several further analytical evolutions, with constant comparison to previous evolutions, resulted in clarity. In the final analysis, a new grounded theory was proposed, and seven categories were theorized, united by a central core category, *building and maintaining relationships* strongly suggesting that if teachers were unable to build and maintain relationships, they were unable to do their work with children living with the effects of complex childhood trauma.

## Grounded Theory Evaluation

A hallmark of constructivist grounded theory is an additional data analysis method in which researchers self-assess the quality of their research against a set of established criteria pertaining to credibility, originality, resonance, and usefulness (Charmaz, 2014). Although seldom presented in journal articles, in the interests of transparency and comprehensiveness, **Table 1** shows an excerpt from this analysis focusing on evidence of trustworthiness against each criterion.

## FINDINGS

The findings reveal how remote primary school teachers experience their work with children living with the effects of complex childhood trauma. The theory—*Building Trauma Informed Teachers* consists of seven inter-related categories: (i) journeying to remote teaching, (ii) learning about complex childhood trauma, (iii) becoming culturally aware and responsive, (iv) building and maintaining relationships, (v) understanding children's experiences, (vi) supporting children, and (vii) identifying what is needed to do the work.

**Figure 1** depicts the structural interplay between the experiences inherent in the seven categories. This is shown through the metaphor of a "jenga tower." Jenga is a Swahili word meaning "to build" (Muhammad, 1915, p. 393) and is the name of a game with blocks requiring problem solving skills (O'Brien, 2010).

The jenga tower visually depicts the theory developed in this study. The tower itself represents the overall theory. The horizontal blocks represent the categories within the theory. The composition of each horizontal block represents the properties of each category. Each aspect of the jenga tower is part of the overall experience. Each horizontal block and the composition of each horizontal block contributes to the overall stability or instability of the experience. The theory's core category, *building and maintaining relationships*, is the central experience and is depicted in the very center of the tower.

The seven categories within the theory are interdependent and overlapping. The categories should not be considered as discrete even though these are presented below under category subheadings for the purpose of this article. The properties that make up each category highlight particular social processes that contribute to the central experience of building and maintaining

**TABLE 1** | Evaluation criteria for this grounded theory study.

| Criteria | Evidence of trustworthiness |
| --- | --- |
| *Credibility*—researcher has "intimate familiarity" (Charmaz, 2014, p. 337) with the topic | ● Number of research participants (n = 23) and the high-quality data that was obtained from their accounts.<br>● Analyzing data manually rather than using a computer software program enabled intimate knowledge of the data.<br>● The range and number of in-depth systematic comparisons that have been made between the categories.<br>● Seven categories that emerged are well supported by the strategies used in this study to ensure its credibility. |
| Originality in the theory generated in a grounded theory study (Charmaz, 2014). Meaning, is the theory new and significant? (Charmaz, 2014) | ● It is the first theory to explain how teachers in remote schools experience their work with children living with the effects of complex childhood trauma.<br>● The theory provides a conceptualization of complex childhood trauma as identified firsthand by teachers in remote primary schools. It highlights the importance of being culturally aware and responsive, and the importance of being trauma informed.<br>● Identifies what is needed in the form of professional development and wellbeing support so that teachers can work effectively with children living with the effects of complex childhood trauma in a culturally aware and responsive manner. |
| *Resonance* ensures the theory developed is reliable and provides participants with a "deeper insight into their lives and worlds" (Charmaz, 2014, p. 338) | Seven interview participants who participated in the focus group in which the initial findings of this study were presented. This was possible because of the partnership between the first author and the participants. The focus group participants agreed that the findings reflected their experiences. |
| *Usefulness* (Charmaz, 2014) | *Building Trauma Informed Teachers* is useful to universities who provide pre-service teacher training, education systems who employ teachers, and schools who are at the coal face working with children living with the effects of complex childhood trauma. The theory provides a way of understanding that can be applied to support teachers in remote communities who are working with children living with the effects of complex childhood trauma. |

**FIGURE 1 |** Building trauma informed teachers.
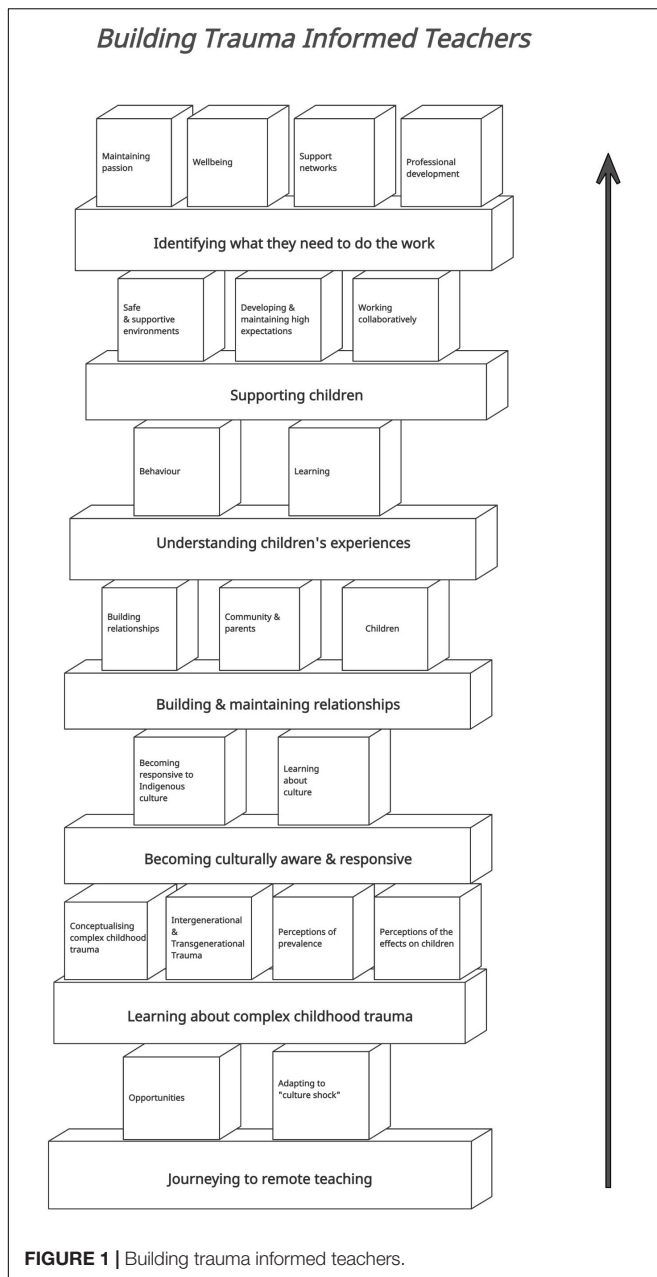
relationships. The interaction of categories helps to explain the experience of teachers in remote primary schools working with children living with the effects of complex childhood trauma. The first three categories, journeying to remote teaching, learning about complex childhood trauma, and becoming culturally aware and responsive are the initial social processes and are the cornerstones for teachers to be able to build and maintain relationships with children living with the effects of complex childhood trauma. Once *building and maintaining relationships* have been established, teachers can do the important work needed to support children living with the effects of complex childhood trauma. This can include work depicted in the categories, understanding children's experiences, supporting children, and

identifying what is needed to do the work. Without the central experience of building and maintaining relationships, these later categories would not be achieved. If any of the categories and their properties are removed, the system can become unstable and may collapse. In the context of this study, if one of the categories and their properties were to be removed it can have a significant impact on the teachers' experiences. If the central experience of *building and maintaining relationships* is removed, the tower cannot stand. That is, the teachers will not be able to do their work with children living with the effects of complex childhood trauma.

The following sections will explain the study's findings by presenting, in turn, each category from the theory, *Building Trauma Informed Teachers*.

## Category One: Journeying to Remote Teaching

The first category explores the process of journeying to remote teaching undertaken by participants. The category has two properties: teaching remotely offers professional and personal opportunities, and adapting to "culture shock."

Participants mainly decided to journey to remote areas for professional and personal opportunities. Professional opportunities included securing their first teaching position, accessing a pathway to permanent employment, and fulfilling contractual requirements for certain periods of "country service" (White, 2019, p. 146). The challenge of remote teaching was initially attractive to them. Personal opportunities included joining partners who secured work in the community, or wanting to experience a change in life. Data analysis showed that, regardless of whether deciding to teach in a remote community was for professional or personal opportunities, once the decision to journey to remote teaching was made by participants, they were committed to "wanting to make a difference" (Interview participant (IP) 4, IP5, IP17, IP19).

When beginning their journey to remote teaching, participants described experiencing something akin to "culture shock" (IP21, Focus Group Participant (FGP)1, FGP4) in relation to environments, languages, and extreme weather events that were previously unknown to them. Participants described feeling "out of [their] comfort zone" (IP10). Once the culture shock subsided there was a period of adjustment. Despite having "fumbled through the first six months" (IP13), participants described their journey as rewarding and enjoyable expressing this with impassioned statements such as, "I fell in love with it [remote community], so never came back to the big city" (IP1).

## Category Two: Learning About Complex Childhood Trauma

The theory's second category explains the processes by which participants learnt about complex childhood trauma. This category has four properties. The first property, how teachers conceptualize complex childhood trauma, explained that it was difficult for participants to define complex childhood trauma, but they viewed it as widespread and complex. An interview participant explained this as "struggling with the demons that

they [students] carry on their backs every single day" (IP7). Participants had observed that complex childhood trauma was mostly anchored in children's experiences of domestic and family violence. The second property, understanding intergenerational and transgenerational trauma, identified participants' awareness of the impact of historical and intergenerational harm as part of the milieu for children living in remote communities. The third property, teachers' perceptions of prevalence of complex childhood trauma, explained participants' perceptions that the rates of complex childhood trauma were higher in remote communities rather than in non-remote communities. The fourth property, teachers' perceptions of the effects of complex childhood trauma on children, explained that participants viewed the impacts of complex childhood trauma as being lifelong and devastating for children.

## Category Three: Becoming Culturally Aware and Responsive

The third category, becoming culturally aware and responsive explains how participants become more culturally aware and responsive to the children they are teaching. This category has two properties. The first property, becoming responsive to Indigenous culture, explains participants growing awareness of culture in their communities, "you get to see another culture and how a different culture operates and to be part of that is something very special and I would never get that in a bigger place" (IP4). The second property, learning about culture, highlighted that they recognized the importance of improving their cultural awareness and responsiveness. One participant stated that, "you need to have awareness of culture and the effects of what has happened in the past" (FGP1). Another important understanding held by all the focus group participants was that not all children in remote communities who live with complex childhood trauma are from Indigenous backgrounds.

## Category Four: Building and Maintaining Relationships (Core Category)

The fourth category, building and maintaining relationships depicts the theory's central experience and core category. This category has three properties. The first property, building relationships, emphasizes participants' broad general understanding of the importance of networks of relationships needed to successfully work with children living with the effects of complex childhood trauma. This knowledge existed in tension with their realization that the work of relationship building was extremely challenging and could not be rushed.

The second property, building relationships with community and parents was deemed by participants to be extremely important if they were to successfully work with children impacted by trauma. They emphasized the importance of trust in relationships and belonging: the need to feel a part of the broader school and local community. One participant offered, "if you're not willing to form relationships, you will find it very hard. You do need to know the families. You can't be the kind of teacher that says, 'ok bell's gone, see you later.' That doesn't work out here" (IP11). Another participant explained that once

trusting relationships were established, "those parents are a little bit more forthcoming of what's going on in their lives. . ..and they're willing to talk about it" (IP5). Participants shared their realization that relationships with parents might be built over a long time in which their acceptance into the community was tested as encapsulated in this comment, "I noticed after being here a few years, the relationships changed. So, the parents were like, 'you're not here to do your time and leave. You're here because you care and want to be here now.' I did see that significant change" (IP5).

The third property, building relationships with children living with the effects of complex childhood trauma, focuses on the importance of teachers getting to know the children, building attachments with children, and providing safety for children. Getting to know children required work on their part. They explained that getting to know children took significant time as it could be difficult for trauma-impacted children to trust in relationships. Getting to know children required teachers to understand children's realities, then step up and accept responsibility as advocates for children. Participants took their responsibilities in this area very seriously with common comments like, "you're the main person that they see every single day" (IP15). Teachers new to 'teaching remote' needed to become aware of this as confirmed in the focus group, "I think it's a big wake up call, especially for young teachers when they come to town because it's like all of a sudden, you're a serious figure in the kid's life, being that advocate for the child. All of a sudden you have gone from uni (sic) and you've all of this responsibility. Or you've come from a different area where you could leave work at the door whereas here, you can't" (FGP1). Participants were also able to explain building relationships with children living with the effects of complex trauma as transformative, with comments such as, "I feel like it has changed me [for the better]!" (IP11).

## Category Five: Understanding Children's Experiences

The fifth category, understanding children's experiences, explores the teachers' understandings of the experiences of children living with the effects of complex childhood trauma. This category has two properties. The first property, effects of complex childhood trauma on behavior, draws from participants' explanations of the different types of behavior exhibited by children impacted by trauma and their understanding of the reasons for these behaviors. Participants described the children as displaying predominantly 'externalizing behaviors,' that is, behaviors that could easily be seen and/or heard and that caused disruption at school. Examples given included physical violence towards others, emotional outbursts, throwing objects, running/walking away, swearing, inappropriate touching, and yelling. They understood these behaviors as signs of something deeper for example, "how I see this behavior with most of these kids is a cry for help. It means something is not right in their mind, or in their body or how they're feeling in a situation, so they do these negative things as a cry for help" (IP6). They described these kinds of behaviors as draining on teachers' time with comments such as, "the staff at school to work with

these kids...I suppose it takes them away from the work they are doing" (IP2). 'Internalizing behaviors' were perceived to be less common amongst the children with examples restricted to being withdrawn or quiet. As one participant said, "every child experiences trauma in different ways" (IP9).

The second property in this category, effects of complex childhood trauma on learning, captures teachers' understanding of "how students' experiences can impact them, educationally" (IP20), and the impossibility of reading educational benchmarks with statements such as, "how can I make this child [living with the effects of complex childhood trauma] engage with learning.... you just can't. It's about managing their behavior before you can even think about doing the learning" (IP16). Participants were very vocal about having to respond to questions from their school leadership teams about why children living with the effects of complex childhood trauma were not achieving national benchmarks in literacy and numeracy. They explained, "I feel like our admin leadership team are focused on the data and the curriculum and not understanding...not realizing that we may need to adapt things for children to be more successful" (IP11) and a focus group participant expanded, "unfortunately, they're not going to sit down and do a standardized test that has questions [that they do not understand]" (FGP1). Strategies employed by participants to address this included: "for the first term, the curriculum sort of took the back burner" (IP23) so as to build trusting relationships and belonging. Encapsulating the interconnected nature of the theory's categories, a participant elaborated, "I have always said that if you don't have a positive relationship with the student, then they're not going to learn. If they are not going to learn, they are not going to be successful. You are not going to be successful and it's a ripple in a pond, isn't it? So, I think it has taught me the importance of relationships with students. It has taught me the importance of knowing students as individuals not just as a class of students" (IP11).

## Category Six: Supporting Children

The sixth category, supporting children represents the notion that it is very important to support children living with the effects of complex childhood trauma. This category has three properties. First, providing safe and supportive environments, which was identified by participants as an essential part of supporting children living with the effects of complex childhood trauma. Safety was identified by participants as an important precursor to learning, "when they feel safe, the learning and everything else comes" (FGP1). Another focus group participant went as far as to suggest that when safety is established, "that's when you get to actually be a teacher rather than a counselor or a parent" (FGP4). Strategies for achieving this level of support were detailed beginning with, "you need to be super consistent. To have clear boundaries, guidelines, expectations, consistency. Because that also plays into safety, of students feeling safe by that consistency and the predictability" (FGP1).

Second, developing and maintaining high expectations, was the key mechanism by which participants worked through curriculum demands of teaching students living with the effects of complex childhood trauma. An interview participant raised this, "I find expectations are huge. If you have really minimal

expectations of the kids, that's what they will achieve, but if you tell them, you expect more, and I know that you can do this. Then, I find that they do. They will try their hardest to get there" (IP11). Holding and managing high expectations of children was seen as a way to convey confidence in children's capacities, "having those high expectations shows that you believe in those kids [living with the effects of complex childhood trauma] before they can believe in themselves" (FGP7). One focus group participant described the interaction between safety and expectation thus, "....that [complex childhood trauma] gets left at the door...now you're in safe space and you're ok, this is what I expect" (FGP1).

Third, working collaboratively with others was necessary and essential to supporting children living with the effects of complex childhood trauma. They collaborated with school guidance officers (i.e., school counselors), deputy principals, principals, and teaching colleagues, and highlighted the importance of "working as a team" (IP16) to support children living with the effects of complex childhood trauma including development of support plans.

Through the social processes of understanding children's experiences (category 5) and supporting children (category 6) participants were then able to identify what they need to do the work.

## Category Seven: Identifying What They Need to Do the Work

The seventh and final category is identifying what they need to do the work. The category has four properties. First, maintaining passion was needed to do the work, "you need to have passion, like you need to be determined and passionate enough to get involved with the kids" (FGP4). This was a spark that enabled them to grow as a teacher, "[this passion] pushed me to be a better teacher" (IP11). Second, looking after wellbeing was important because participants' wellbeing had suffered in various ways at some stage while doing the work, "I'm wearing a mask of, I can handle this. I can take care of this" (IP7). Participants expressed feelings of self-doubt about the quality of their teaching, "one of my biggest concerns was feeling like I wasn't being a good teacher for the other kids in the class" (IP13). Third, support networks were important for teachers being able to do the work and maintain their wellbeing. Participants described lack of formal support systems, and being away from their own family support networks. Teachers often banded together to work through their experiences of work. A focus group participant explained, "relationships you make with other teachers. There's a closeness. I feel like at our school, it's a family. So, I can go to any of the staff and say, 'this is going on' or ask for advice and it's a safe place" (FGP1). In remote areas, "friendships made and how they become family" (FGP3). Fourth, accessing professional development as a source of support brings us full circle back to the study's first category of "journeying." Professional development as described by an interview participant as, "I'm on a journey and I'm learning too" (IP4). On this journey, participants traveled through multiple learning experiences working with children living with the effects of complex childhood trauma. They became more confident in

their skills, "I'm more confident than what I was before. . .but still learning" (IP12). On the job experiential learning may not always be supported with, "PDs [professional development] that will actually support you to work with kids that you are working with" (FGP2). They said this professional development needed to be ongoing and provide specific strategies for working with complex childhood trauma, school curriculum, working with parents, and cultural awareness.

## DISCUSSION

This grounded theory study offers a theory to understand how teachers in remote primary schools experience their work with children living with the effects of complex childhood trauma. It is a process of *building and maintaining relationships*. It provides valuable insights into how teachers "do the work" (Venet, 2019, p. 4), the challenges they faced, and the opportunities generated. This study is one of the first to report on teachers' experiences of working in remote schools with children living with the effects of complex childhood trauma. It builds on previous work of Brunzell et al. (2018), Howard (2019), Stokes and Brunzell (2019), Berger et al. (2020) and Berger and Samuel (2020) but is the first to develop a theory that can be used by universities and education systems as a tentative conceptual foundation for preparing teachers to work with children living with the effects of complex childhood trauma.

The discussion focuses on key findings from each category, anchoring each of the categories back to the theory's central category to emphasize the interconnected nature of teachers' experiences and highlighting the centrality of *building and maintaining relationships* particularly in remote communities when working with children living with the effects of complex childhood trauma. It will also discuss the implications of the findings and addresses the study's strengths and weaknesses.

### Journeying to Remote Teaching

"Culture shock" was experienced by participants once they started working in a remote community. This "culture shock" was due to their new environment—a remote community—being completely different from what they had previously experienced. Although "culture shock" is a somewhat generic term, placed in context of Australia's remote areas which are "not demographically homogenous" (Willis and Grainger, 2020, p. 32), "culture shock" may be very subtly nuanced for teachers in each unique community. Previous research finds that these nuances can be challenging for teachers in remote communities (Sharplin, 2002; Datta-Roy and Lavery, 2017; Kelly et al., 2019; Lowe et al., 2019; Willis and Grainger, 2020). Differences in environmental and social factors lead teachers to experience new and unexpected situations which then have implications for how they build relationships within communities. Yet "culture shock" can be mediated when existing relationships, especially those established by school leaders, are strong and reliable (Chen and Phillips, 2018; DeFeo and Tran, 2019).

Universities and education systems can take heed with this finding because it points to ways in which appropriate and effective preparation, induction, and ongoing mentoring and support for new teachers builds upon existing relationships (somewhat like the adage of standing on the shoulders of giants). These insights could assist with systemic relationship building in communities and thus enable more effective transition to teaching in remote schools.

### Learning About Complex Childhood Trauma

Within the context of this study, it was important to document how remote teachers conceptualized complex childhood trauma because the literature strongly suggests that implementation of trauma informed practices must be contextualized (Bessarab and Crawford, 2010; Pihama et al., 2017; Menzies and Grace, 2020). Although the participants in this study did not have a shared definition of complex childhood trauma, they did share understandings about its genesis. For example, importantly for contextualization, they conceptualized complex childhood trauma through the lens of intergenerational trauma and transgenerational trauma (Atkinson, 2013; Menzies, 2019; Sianko et al., 2019; Noble-Carr et al., 2020). They recognized the inter-relationships between domestic and family violence, and intergenerational and transgenerational trauma (Atkinson, 2013; Langton et al., 2020; Fiolet et al., 2021). The intertwining of these complex phenomena arises from the long-term effects of colonization, government policies on assimilation which led to the destruction of traditional family units in many Australia's remote communities, resulting in dispossession and despair (Atkinson, 2002; Menzies, 2019; Curthoys, 2020; Meyer and Stambe, 2020). Teachers in this study bore witness to these injustices and the harm they have caused and continue to cause. It is no wonder they were confronted by suspicion and mistrust as impediments to relationship building (Fernando and Bennett, 2019). If teachers understand the "historical and structural oppression in the context of historical and intergenerational trauma" (Blitz et al., 2016, p. 119) this provides them with clues as to how they can build relationships with the communities, families, and children they work with. It is important, therefore, that universities and education systems provide education and training on the topic of complex childhood trauma including its definition, cause, and effects. We join with others in calling upon these institutions to play a stronger role in raising awareness and building professional capacity to understand and respond to complex childhood trauma with effective practices (Berger, 2019; Brunzell et al., 2019; Howard, 2019; Berger and Samuel, 2020). This would ideally begin in pre-service education and continue with ongoing professional development via in-service education (Howard, 2019).

### Becoming Culturally Aware and Responsive

Being responsive to Indigenous cultures and learning about the local culture was an important component of building and maintaining relationships with communities (Miller and Berger, 2021; Miller and Steele, 2021; Shay et al., 2021). Participants recognized the need to be aware of cultural

protocols and were conscious of their own needs for training in this area. However, none appear to have been exposed to cultural awareness training prior to or during their service in remote schools. There is limited research investigating the extent to which teachers in remote communities receive cultural awareness training and its effectiveness (Gower et al., 2020). This is despite government commitment to The Alice Springs (Mwparntwe) (Australian Government, 2019), and calls from the Australian Institute of Teaching and School Leadership (Australian Institute of Teaching and School Leadership [AITSL], 2020) for teachers to receive cultural awareness training, and the championing of Australian Institute for Teaching and School Leadership (2011) which have focus areas where teachers need to receive cultural awareness training if they are to enact these standards as outlined in **Table 2**.

These findings highlight the necessity and urgency for universities, education systems, and school communities to provide cultural awareness training so that teachers can embed Indigenous perspectives in their pedagogy and school processes. This will also support *building and maintaining relationships* with local community members.

## Building and Maintaining Relationships

*Building and maintaining relationships* was the central experience of participants in being able to do their work with children living with the effects of complex childhood trauma. The teachers in this study concluded that *building and maintaining relationships* was the very foundation for their work aligning with previous studies which also found the importance of teacher student

TABLE 2 | Excerpt from Australian Professional Standards for Teachers (2011)—Graduate level.

| Domain: Professional Knowledge | Standard 1: Know students and how they learn | Focus area 1.4: Strategies for teaching Aboriginal and Torres Strait Islander students "Demonstrate broad knowledge and understanding of the impact of culture, cultural identity and linguistic background on the education of students from Aboriginal and Torres Strait Islander backgrounds (Australian Institute for Teaching and School Leadership, 2011, p. 11) |
| --- | --- | --- |
| Domain: Professional Knowledge | Standard 2: Know the content and how to teach it | Focus area 2.4: Understand and respect Aboriginal and Torres Strait Islander people to promote reconciliation between Indigenous and non-Indigenous Australians "Demonstrate broad knowledge of, understanding of and respect for Aboriginal and Torres Strait Islander histories, cultures and languages" (Australian Institute for Teaching and School Leadership, 2011, p. 13) |

relationships with children living with the effects of complex childhood trauma (Townsend et al., 2020; Wall, 2020; Miller and Berger, 2021). Participants emphasized the importance of *building and maintaining relationships* within the communities in which they worked. The centrality of this experience is evidenced in the numerous studies identifying the importance of community and parental relationships, noting that these take time to build because trust is evasive, and this is partly attributable to parents' previous experiences of abuse, violence, and trauma at school (Morton and Berardi, 2018; Miller and Berger, 2021). For teachers, overcoming this legacy of trauma at school adds additional layers to the complexity and importance of building and maintaining relationships. It demands high levels of resilience even for teachers who are early in their careers (Crosswell et al., 2018; Papatraianou et al., 2018), yet in communities in which relationships were able to be built, participants reported their work with children forged ahead. Key to this appeared to be respect and compassion; not finding blame for children's circumstances or casting judgements but working from a position of strength and agency (Borrero et al., 2018; Sarra et al., 2018; Hajovsky et al., 2020; Miller and Berger, 2021). In this way, the findings of this study contrast with those of a case study of an Australian teacher which uncovered the high prevalence of deficit discourses and blame apportioning (Stacey, 2019). These findings emphasize the importance of education systems and school communities having strong organizational leadership, governance, and cultures to create inclusive, welcoming, and positive environments in which relationships can thrive.

## Understanding Children's Experiences

This study found that participants observed and understood that complex childhood trauma impacted upon children's behavior and learning, congruent with previous research (Davis et al., 2018; Berger, 2019; Berger and Samuel, 2020; Collier et al., 2020; Wall, 2020). In this study, participants' accounts of their experiences touched on how they understood complex childhood trauma as manifesting in both externalizing and internalizing behaviors (Doll, 2019; Splett et al., 2019; Olivier et al., 2020; Miller and Berger, 2021), and they identified that lower academic achievement required differentiation in teaching (Deunk et al., 2018; Smale-Jacobse et al., 2019; Miller and Berger, 2021). They implemented differentiation as a key strategy to address learning difficulties, with limited support and resources. Participants in this study hinted at a cascading of effects when discussing children's academic progress. They explained tensions between school curriculum standards and expectations and children's individual circumstances, needs, and capabilities. They found it difficult to balance the needs of children living with the effects of complex childhood trauma against needs of other children in their classes, circumstances that have now been documented by other researchers (Berger et al., 2020; Parker and Hodgson, 2020). Teachers in this study seemed to also struggle solo with children's learning difficulties (Ryan et al., 2018), whereas research points to the value of a whole school approach to trauma informed practices (Davis et al., 2018; Ryan et al.,

Berger and Samuel, 2020). Fortunately for school systems and early childhood systems in Australia, guidelines of trauma-aware education have been developed, disseminated (Queensland University of Technology [QUT], and Australian Childhood Foundation, 2021) and their uptake and use can be studied in future research.

## Supporting Children

Developing and maintaining high expectations was found in this study to be the bedrock for supporting children: being supportive yet challenging in a supportive manner. The participants seemed to firmly believe that despite their experiences, children living with the effects of complex childhood trauma were able to learn and achieve. Previous research has identified the importance of high expectations of children generally (Roffey, 2016; Burgess, 2019; Sarra and Shay, 2019; Sarmardin et al., 2020; Townsend et al., 2020; Shay et al., 2021). Within the context of Indigenous education in Australia specifically, Sarra et al. (2018) coined the phrase "high expectations relationships" (Sarra et al., 2018, p. 32) to describe the kinds of strong teacher student relationships built on awareness that personal beliefs and assumptions can impact on others. Breaking this down, the components of high expectations are: understanding trauma, utilizing trauma informed practices, and building relationships with families and communities (Department of Education [DoE], 2020). All were identified by participants in this study. Participants in this study identified an additional component to enabling high expectations, that of working collaboratively with others including teacher colleagues, school mental health professionals, and community agencies. Working collaboratively is often taken for granted in workplaces such as schools yet it has been identified within the literature as important work (Mellin et al., 2017; Biddle et al., 2018; Berger and Samuel, 2020; Collier et al., 2020). School mental health professionals are often viewed as "experts on trauma informed practice" (Howell et al., 2019, p. 31), and they are known to be a source of positive emotional support, providing insights into students, and finding solutions with teachers, who then put them in place (Tatar, 2009; Alisic, 2012; Kourkoutas and Giovazolias, 2015; Reinbergs and Fefer, 2018). However, there is some research to suggest that school mental health professionals may not feel fully equipped in their knowledge, confidence, and skills in relation to complex childhood trauma, specifically in understanding how it impacts on children's learning and behavior (Gubi et al., 2018; Collier et al., 2020). This has a flow-on effect to the support teachers receive, particularly in areas where there are limited services available, and the school mental health professional is the main avenue for support for both teachers and children. There has been some research finding that interventions implemented by teachers are as effective as those delivered by mental health professionals (Stratford et al., 2020). With the limited access to mental health professionals in remote communities, this highlights for universities and education systems the importance of appropriate preparation and ongoing training and support for all school personnel working with children living with the effects of complex childhood trauma.

## Identifying What They Need to Do the Work

This study found that even though teachers faced challenges, they find their work in remote communities with children living with the effects of complex childhood trauma to be rewarding. This is in line with other research that has found that positive relationships with students enhance teachers' wellbeing, as these relationships enable teachers to see concrete evidence that they are making a difference (Kangas-Dick and O'Shaughnessy, 2020; Miller and Berger, 2021). However, there is limited research on how working conditions in remote schools' impact on the wellbeing of teachers (Willis and Grainger, 2020). Some extant research suggests inadequate support for teachers and administration staff in remote schools makes them vulnerable to the effects of secondary trauma, also referred to as secondary traumatic stress (Lawson et al., 2019; Collier et al., 2020) or type II trauma (Sage et al., 2018) which refers to a person's indirect exposure to traumatic events and "subsequently identifying and empathizing with the victim" (Sage et al., 2018, p. 457). People who work with children living with the effects of complex childhood trauma (e.g., child protection staff, child therapists, and mental health workers) who had high levels of job satisfaction had lower levels of compassion fatigue (Sage et al., 2018). For teachers in this study, like professionals in previous studies, secondary traumatic stress manifested as disengagement and withdrawal from work, with knock-on effects to their personal life such as sleep problems (Blitz et al., 2016; Lawson et al., 2019). Remote teachers are at risk of developing these conditions if not properly trained and supported.

Teachers in this study disclosed that they did not feel prepared to work with children living with the effects of complex childhood trauma. They are not isolated cases in not receiving formal training in trauma informed practices (Miller and Berger, 2021). Findings of this study highlight the need for ongoing professional development in trauma informed practices and on the ground support from knowledgeable others. This is consistent with previous research (Berger and Samuel, 2020; Berger et al., 2020; Blitz et al., 2020; Reierson and Becker, 2020; Willis and Grainger, 2020; Miller and Berger, 2021). Training has been linked to increased confidence in working with children living with the effects of complex childhood trauma (Berger et al., 2020; Loomis and Felt, 2020; Sonsteng-Person and Loomis, 2021).

## STRENGTHS AND LIMITATIONS

This study offers an original theory which provides insights into how teachers in remote primary schools experience their work with children living with the effects of complex childhood trauma. It reveals the centrality of relationships. In doing so, this study is significant in five main ways. First, it extends and enriches understanding about the importance of *building and maintaining relationships* with communities, parents, and children living with the effects of complex childhood trauma. Second, it provides understanding of how teachers conceptualize complex childhood trauma to be intergenerational and transgenerational trauma, and the significance of domestic and family violence

as intertwined with this. This conceptualization of complex childhood trauma enables teachers to better understand the children in their classrooms and communities and respond sensitively. Third, this study highlights the importance of teachers in remote communities becoming culturally aware and responsive through contextually appropriate cultural awareness training beginning in pre-service teacher education and extending through the teaching life course. Fourth, this study contributes to understanding teacher wellbeing in remote teaching appointments. Finally, this study finds the importance of initial teacher training and ongoing professional development, without which teachers will burnout and this may lead to negativity and sub-optimal practice in their work in remote schools with children living with the effects of complex childhood trauma.

There were some limitations in this study that should be discussed. One limitation was the lack of diversity of the participant sample. Recruitment was conducted via email messages to all rural and remote primary schools in the research area (n = 57). Participants who volunteered to be interviewed were from a smaller number of schools. Three quarters of the participants previously accessed some form of training regarding trauma informed practices which may have biased the results. Data were not collected on the scope and nature of the professional development (e.g., topics covered, presenter qualifications, duration) so it is not possible to know the extent to which access to professional development impacted on the findings of this study. Given a different recruitment mechanism or longer response times, there may have been other teachers who may have chosen to participate in the study. A purposeful sample with the inclusion of rural and remote teachers across the research area may have diversified the sample and resulted in different findings. Another limitation to this study comes with the benefit of hindsight. These findings of the study may have been different if the phenomena under investigation was more narrowly or widely defined to include primary school teachers from a greater or lesser range of schools or teachers from secondary schools.

## CONCLUSION

This study provides a new theoretical framework *Building Trauma Informed Teachers* which highlights the importance of *building and maintaining relationships* when working with children living with the effects of complex childhood trauma. In sum, the findings of this study also suggest that if teachers do not have access to ongoing professional development in trauma informed practices and cultural awareness, alongside strategies for managing curriculum and learning demands (Stacey, 2019), it will remain difficult for teachers in remote communities to navigate the complex landscapes they find themselves in and could grow tendencies towards blame, deficit discourses, stress, and burnout (Coetzee et al., 2017; Kim, 2019). It would also be difficult for teachers to continue to manage and support the behavior and learning needs of children living with the effects of complex childhood trauma (Loomis and Felt, 2020). It is important to acknowledge that teachers enter teaching with

their own past histories and experiences, and this influences how they teach and interact with students (Loomis and Felt, 2020). Universities and education systems can empower teachers at all stages of their teaching life course from pre-service to experienced with ongoing training and support so they can work effectively with children living with the effects of complex childhood trauma by using *Building Trauma Informed Teachers*.

## DATA AVAILABILITY STATEMENT

The datasets presented in this article are not readily available because ethical approval for this study and institutional approval to conduct the research does not extend to the use of the original/raw data in future studies. Hence data are not available in a public access data repository. Requests to access the datasets should be directed to the corresponding author.

## ETHICS STATEMENT

The studies involving human participants were reviewed and approved by Queensland University of Technology Human Research Ethics Committee (Approval number: 1800000177). The participants provided their written informed consent to participate in this study.

## AUTHOR CONTRIBUTIONS

MB conceived and designed the study, collected the data, performed data analysis, interpreted data for the article, wrote the manuscript, and co-ordinated authors in responding to successive drafts. JH served as associate supervisor for MB's doctoral study, conceived and designed the study, supervised data analysis, interpreted data for the article, and wrote the manuscript. KW served as principal supervisor for MB's doctoral study, conceived and designed the study, supervised data analysis, interpreted data for the article, and wrote the manuscript. All authors contributed to the article and approved the submitted version.

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# Teacher Perspectives When Learning Trauma-Informed Practice Pedagogies: Stories of Meaning Making at Work

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This qualitative study focused upon ways teachers make meaning when working with students who are affected by trauma. An 11-month longitudinal design was used to explore teachers' perspectives ($N = 18$ teachers) as they reflected upon the impacts of trauma within their classrooms and as they learned about trauma-informed practice strategies. Data from group interviews and participant journals were analyzed using interpretative phenomenological analysis. Results emerged that suggested common pathways in the ways teacher perspectives evolved; and these pathways were then analyzed in light of the meaningful work literatures to further suggest how work became more meaningful to these teachers when learning trauma-informed practice strategies. Teachers fostered a greater sense of meaning at work *via* two pathways: first by increasing their own wellbeing *via* personal use of trauma-informed strategies; then second, by incorporating trauma-informed strategies into their pedagogy to more effectively engage their students with learning. Increasing meaningful work for teachers who are working with trauma-affected students has promising implications for teacher professional development and workforce sustainability in schools experiencing high rates of teacher turnover and burnout as a result of teacher exposure to adverse student behavior.

Keywords: trauma-informed education, positive education, teacher practice, meaningful work, teacher wellbeing

## INTRODUCTION

### The Increasing Need for Trauma-Informed Teachers

Considering the increasing numbers of children contending with adverse experiences and the impacts of trauma (National Child Traumatic Stress Network [NCTSN], 2020), the need to explore the voices and lived experiences of teachers takes on greater importance, particularly as many schools require effective implementation of trauma-informed practice responses. Adverse childhood experiences (ACEs; i.e., experiences that undermine a child's belief that the world is good and safe such as experiencing violence, abuse or neglect) impact high numbers of children. For example, pre-COVID research estimates that

children in Canada (67%), United Kingdom (50%), and United States (60%) have experienced at least one ACE (Cook et al., 2017; Association of Directors of Public Health [ADPH], 2020; National Child Traumatic Stress Network [NCTSN], 2020; Ontario Agency for Health Protection and Promotion [OAHPP], 2020). In Australia, the country of the current study, the number was higher at 72% (National Child Traumatic Stress Network [NCTSN], 2020; Sahle et al., 2020).

Without intervention the impacts of ACEs can appear to teachers as dysregulated, escalated, disengaged, disruptive or sometimes violent student behaviors in classrooms (Downey, 2007). These challenging behaviors are often masking fear, lack of safety, sadness and great loss for students (Wolpow et al., 2009; National Child Traumatic Stress Network [NCTSN], 2020). In direct response, Quadara and Hunter (2016) define trauma-informed practices as frameworks and strategies to understand and respond to the effects of trauma on wellbeing and behavior. It is, therefore, important that teachers are educated in trauma-informed practices to proactively address negative impacts of students' behaviors on themselves, their peers and teachers (Hughes, 2004).

Further, the relevance of trauma-informed educational practices and strategies takes on greater significance given the COVID-19 pandemic which has triggered escalating rates of child and youth adversity (Ma et al., 2021; Piquero et al., 2021; Waters et al., 2021). Students and teachers across the world have been impacted by COVID-19 through illness, fear of exposure, losing loved ones, the move to remote learning and so on (Brown et al., 2020). COVID-19 has widened the equity gap and decreased student engagement in schools embedded in communities of educational inequity (Flack et al., 2020). Vulnerable students have experienced greater hardship due to factors such as the increasing prevalence of family violence (Humphreys et al., 2020). Researchers have identified that COVID-19 has led to post-traumatic stress disorder (PTSD) in youth samples during the pandemic (Guo et al., 2020; Liang et al., 2020; Wang et al., 2020).

Considering adverse childhood experiences before COVID-19, and the compounding and ongoing impacts on child adversity during the pandemic, trauma-informed educational responses hold possibility for proactive steps for teachers to learn and then to enact. As Quadara and Hunter (2016) propose, when teachers learn about the impacts of trauma on child development and on their capacities to learn, teachers can be empowered to understand what they can proactively do to support children when learning. Further, teachers may feel more effective in both modeling repair responses to ruptures in the classroom while maintaining strong ethics of care, safety and compassion for the classroom community.

## A Proactive Teacher Practice Response: Trauma-Informed Positive Education

Designed as an integrated practice contribution, trauma-informed positive education (TIPE; Brunzell et al., 2015, 2016b) was developed as an evidence-informed pedagogical approach from a systematic literature review of two relevant areas

of trauma-informed education and positive education. This approach to trauma-informed educational practice aims to help teachers understand the impact of trauma on students' wellbeing and learning whilst providing strengths-based pathways to support students meeting their own needs in healthy ways in the classroom and beyond.

TIPE is a practice application designed as a whole-school trauma-informed approach for teachers to learn. TIPE suggests developmental capabilities to trauma-informed teaching and learning which advises teachers to actively work toward fostering students' own understanding of their stress response when learning; introduce strategies to regulate heightened responses to stress within the classroom (including mindfulness, sensory integration strategies, pairing rhythmic movement with learning academic content); increase relational strategies; learn about character strengths; prime times for learning with positive emotion; practice gratitude and intentionally savor small and big successes in class.[1] TIPE has been shown to provide teachers with effective strategies to increase self-regulatory abilities in students (Brunzell et al., 2016a) and to increase their relational capacity and psychological resources for wellbeing (Brunzell et al., 2019). These early results are promising, and there is still much to explore with TIPE. There remains a need to understand the experiences and perspectives of teachers as they learn and practice TIPE to comprehensively sustain trauma-informed practices within a school's culture, practices and tired-intervention approaches.

As TIPE has supported teachers to shift from *reactive* to *proactive* strategies to increase student engagement and wellbeing, it has also enabled teachers to maintain a strengths-based perspective much needed in classrooms impacted by stress- and trauma-exposure. The aims of TIPE are to provide teachers the knowledge and strategies for what to do when supporting dysregulated behaviors; and further, to maintain focus on each student's inherent strengths. When teachers are able to observe when a child is learning well, using their strengths, and attached to the classroom community, they can work toward replicating these conditions for learning success.

## Meaningful Work as a Protective Factor for Teachers

Like other professionals on the frontlines of supporting individuals impacted by trauma and chronic stressors, teachers can struggle to learn new practices when they are continuously service-rationing their limited resources of planning time, focus, and other resources (van Dernoot Lipsky, 2009). Teachers may also be managing vicarious impacts (secondary stressors) of witnessing, understanding, and supporting young people who have been impacted by trauma and chronic stressors (Alves et al., 2020). With respect to the impact of students' trauma-related behaviors upon their teachers, previous research has shown that this leads to a loss of meaning for teachers who feel inadequately prepared to support students to meet their unmet learning needs; and this loss of meaning is directly related to compassion fatigue and workplace burnout (Brunzell et al., 2021). Aligned with this

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[1]For more detailed information about TIPE (see Brunzell et al., 2016b).

finding, Pines (2002) suggests that when teachers are unsuccessful at managing student disruption, it compromises their feelings of existential significance at work. According to Pines (2002, p. 133), students presenting resistant behaviors may trigger teacher beliefs that they can no longer "educate, influence, and inspire;" and this has negative impacts on teachers who need to believe their work is meaningful.

Research in other professions has shown that having work which provides meaning is an important component in one's life satisfaction (Duffy et al., 2013), general wellbeing (Arnold et al., 2007) and global sense of life meaning (Steger et al., 2012). Having a sense of meaning at work also impacts various aspects of one's work life, including positive affect and engagement at work (Steger et al., 2013), use of character strengths at work (Hartzer and Ruch, 2012), work satisfaction (Kamdron, 2005), feeling that work is important (Harpaz and Fu, 2002) and having a sense of calling. In addition, higher levels of meaningful work are related to less absenteeism and increased desire to stay in one's organization (Steger et al., 2012).

When studying meaning at work, Dik et al. clarified the distinction between "work meaning" (i.e., whatever type of meaning people give and take from their work) and "meaningful work" (i.e., work that is both eudaimonically positive and significant for the individual; Dik et al., 2013a,b). Steger et al. (2012) describe four qualities of meaningful work: it is subjectively judged to matter by the individual, seen as significant, serves the greater good, and fulfills the broader need for meaning in one's life. Three theories are often employed to suggest *how* work becomes meaningful: Rosso et al. (2010) bi-dimensional model of meaningful work, Steger and Dik's (2009) three-factor theory of meaningful work, and Park's (2005) meaning-making model.

The current study employs meaningful work theories as analytical tools in order to extend the findings from an earlier study which determined *sources* of meaningful work in teachers working within schools impacted by childhood trauma (see Brunzell et al., 2018). Two umbrella sources of meaningful work for teachers were identified in this earlier study: (1) Teachers believe their work is meaningful when their own workplaces nurture their own wellbeing as front-line professionals exposed to childhood trauma, and (2) they also believe their work is meaningful when practice pedagogies used across their schools effectively engage students who struggle with presentations of disengagement, resistance and defiance within the classroom. Restated, teachers believe that they can indeed cultivate meaningful work if they are given frequent opportunities within their work to increase their own wellbeing and to improve their own practice as teachers (Brunzell et al., 2018). The current study aims to extend these findings to increase understandings of how these two umbrella themes (sources) of meaningful work potentially interact or change over time when learning trauma-informed practices.

Within the meaningful work literature, (Dik et al., 2013b, p. 364) ask researchers to discover in what ways can meaningful work be "fostered, encouraged, elicited, or increased?" They also call for further investigation into the ways an individual's work can be made even *more* meaningful. The contention within the current study is that by studying the qualitative responses, experiences and perspectives of teachers as they learned and implemented trauma-informed pedagogy, the field can gain nuanced understandings of how learning trauma-informed pedagogy impacts teachers' perceptions of the efficacy and meaning of their own actions as they work toward implementation of trauma-informed practice approaches within their schools.

## MATERIALS AND METHODS

The qualitative methodology employed was interpretative phenomenological analysis (IPA) which privileged and prioritized the lived experiences and perspectives of participating teachers (Smith, 1996, 2017; Smith et al., 2009). In accordance with IPA, the aims and research questions in this study sought to (1) explore teachers' own understanding and their perspectives when learning trauma-informed practice pedagogy (phenomenology), (2) understand the meanings of teachers' own meaning making throughout professional learning (hermeneutics), and (3) place focus on individual teachers' journeys (idiography) according to the perspectives of the teachers themselves. IPA guided the epistemology, procedural design, tools for data collection, researchers' reflexivity, analytical strategies, and write up of the investigation.

### Participants and Procedure

Eighteen teachers[2] were sourced from two schools: a metropolitan school containing foundation (first year in school) to year 12 students ($N = 9$ teachers; 77% female, average years teaching $= 1.8$)[3] and a rural school containing foundation to year six students ($N = 9$ teachers; 66% female, average years teaching $= 12.2$).[4] **Table 1** shows demographic information for participating teachers.

The data collection occurred across 8 days spread over 11-months (i.e., a complete school year). Within each session teachers reflected together on what they had learned about trauma-informed pedagogy and its daily applications to the classroom. The teachers also participated in group interviews

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[2] All names, including school and participant names, have been given pseudonyms to protect participant identities as outlined in the study's ethical agreements. All participants have been given the opportunity to review all transcripts of interviews and journal entries, and they have provided their consent for the use of their responses in this report.

[3] The Index of Community Socio-Educational Advantage (ICSEA) for this school is 967 (Australian Curriculum Assessment and Reporting Authority [ACARA], 2020). An ICSEA is a scale which allows comparison among schools with similar student cohorts. Schools with ICSEA scores of 800–999 are considered to be lower in educational advantage than the national Australian average. Forty percent of families in the F-12 school were in the state's lowest quartile for socio-economic status. Forty two percent of the students had a language background other than English. School reports for trauma-affected students were confirmed by community psychological support agencies, child protective services and the school.

[4] The ICSEA for this school is 883 (Australian Curriculum Assessment and Reporting Authority [ACARA], 2020). Seventy two percent of families in the school were in the state's lowest quartile for socio-economic status. Twenty four percent of students in the school were of Aboriginal descent. Thirty percent were known to the State Government Department responsible for Child Protection services. School reports for trauma-affected students were supplied by community psychological support agencies, child protective services and the school.

| School location | Participant # | Alias (Gender) | Year/grade level(s)* | # years teaching | # years at this school |
|---|---|---|---|---|---|
| School 1: metro | 1 | Leyla (F) | 5–6 | 1.0 | 1.0 |
| | 2 | Sasha (M) | 5–6 | 2.0 | 1.5 |
| | 3 | Maddie (F) | 5–6 | 0.0 | 1.0 |
| | 4 | Joseph (M) | 7 and 9 | 1.0 | 1.0 |
| | 5 | Jenny (F) | 8 and 10 | 4.5 | 4.0 |
| | 6 | Roxanne (F) | Wellbeing | 6.0 | 2.0 |
| | 7 | Carol (F) | Senior school inclusion unit | 3.0 | 1.0 |
| | 8 | Christy (F) | Senior school inclusion unit | 4.0 | 4.0 |
| | 9 | Naomi (F) | Senior school inclusion unit | 1.0 | 1.0 |
| School 2: regional | 10 | Gloria (F) | Preparatory (P) | 3.0 | 3.0 |
| | 11 | Kristen (F) | 1–2 | 16.0 | 16.0 |
| | 12 | Ashley (F) | P-1 | 1.0 | 1.0 |
| | 13 | Sonia (F) | 1–2 | 11.0 | 1.0 |
| | 14 | Kiley (F) | 5–6 | 17.0 | 13.0 |
| | 15 | Dev (M) | 5–6 | 4.0 | 4.0 |
| | 16 | Heidi (F) | 2–4 | 6.0 | 6.0 |
| | 17 | Gene (M) | 2–4 | 6.0 | 8.0 |
| | 18 | Lisa (F) | 5–6 | 8.0 | 4.0 |

*Most teachers in this study taught combined-grade, multi-age classrooms.

and completed individual journals in each of the eight sessions across the year.

## Data Collection

The current study collected qualitative data *via* group interviews and participant journals.

### Group Interviews

Group interviews were selected to gather data based on practical concerns determined by the schools' principals with the researchers as a condition for the study. Group interviews have been used for IPA (Flowers et al., 2000; de Visser and Smith, 2007; Palmer et al., 2010). Acknowledging IPA's focus on idiography when using group interviews, caution is needed because the multiple voices and perspectives from group members can make it difficult to parse the individual and idiographic experiences of each participant (Smith et al., 2009). Smith et al. (2009) recommend one way to mitigate this is to analyze all transcripts at least twice: the first time to look for group patterns and the second time to look for idiographic, personal account. This two-step analytic process was used in the current study explained below.

### Participant Journals

In addition to group interviews, teachers were asked to write in their own individual journals about their experiences and reflections throughout the course of the 11-months. Journals tapped into the idiographically unique aspects of meanings attributed by each teacher for themselves in their own words. Teachers were encouraged to record any stories or reflections that they did not want to share in the group.

### Ethical Considerations

The approved application to the University of Melbourne Human Research Ethics Committee (HREC 1442689.1) addressed several ethical concerns in the study. The roles of researchers and participating teachers involved an inherent power differential and affected the self-report of participant attitudes, perceptions, and actions. The study's data collection strategies attempted to empower participating teachers by providing various ways to provide their responses (e.g., group interviews and individual journals). Confidentiality was carefully considered throughout the procedures for this study. Due to the small sample size of participants, confidentiality of responses could not be guaranteed by the researchers. Pseudonyms were used throughout the data reporting, analysis, and this report.

Discussing sensitive topics such as stress exposure due to managing adverse student behaviors may have led to empowerment and action toward mitigating the impacts of these behaviors; but it may also have led to the experience of unexpected distress during the research activities. No participant requested additional support as a result of their involvement in this study. However, if a participant had required further assistance, the researchers were ready to provide referral details for relevant professional services counseling for participants as specified in the study's plain language statements.

Another potential concern (articulated by the ethics committee of the state government's department of education) was ensuring participation in the study would be well integrated into teachers' professional learning and workplace priorities. The ethics committee was assured that under agreements with the schools' principals, the time commitment in this study included using a teacher's pre-existing planning periods, and the principals agreed that a teacher's participation in the study was designated planning time in teachers' timetables. If a teacher felt their limited planning time was not being used effectively, or causing them duress when considering other priorities, a teacher could elect to exit the study.

## Data Analysis
### Step 1
Following IPA two-steps for employing group interviews (Smith et al., 2009), the first author read transcripts of all group interviews and re-read while listening to group interview recordings to become familiar with the text. Next, a line-by-line analysis was done by first author to determine IPA categories of emergent, super-ordinate and recurring themes (Smith et al., 2009).

### Step 2
After the group interviews had been coded, the first author manually extracted, compiled and analyzed individual participant responses from group interview transcripts for emergent, super-ordinate and recurring themes for each individual participant (separate from group themes). Within this exploratory qualitative investigation, individual participant accounts were considered as an idiographic description of an individual's unique journey. However, all 18-participant teachers were compared for themes and patterns. All texts from the journal entries were also transcribed from participant handwriting and subjected again to the IPA steps outlined above to monitor and include unique findings arising from participant journal entries.

Cross validation of data analysis occurred through dependability audits by two research colleagues (different to this study's second and third authors) to increase internal confirmability and intercoder agreement. These colleagues (1) individually coded selected manuscripts from each participant, (2) noted emergent and super-ordinate themes, and (3) resolved discrepancies with the study's authors. NVivo data analysis software was used to support the manual sorting and categorization of data themes. Together, the researchers with additional two colleagues conferred upon 174 unique codes yielding this study's two recurring themes. Ongoing checks throughout this process between authors aimed to assess researcher bias from pre-existing biases due to *a priori* theory.

## RESULTS

Results emerged showing teachers used two applications of trauma-informed positive education (TIPE): (1) they used TIPE strategies to increase *their own* wellbeing inside and outside work; and (2) they implemented new teaching practices (practice pedagogy) to better suit the needs of and engage with students impacted by trauma. Analysis showed two distinct pathways emerging from teachers' experiences and reflections as shown in **Figure 1**.

In pathway one, teachers deliberately applied TIPE practices to themselves (e.g., de-escalation, self-regulation, breathing, mindfulness, strengths, gratitude) *before* they explicitly implemented these practices in their teaching with students. Within this first pathway there were two distinct subgroups: Subgroup one of teachers ($N = 6$) experienced considerable disruption to their prior held beliefs about their own abilities to teach in trauma-affected environments. Despite their best intentions at the beginning of the school year, they struggled when trying to manage disruptive student behavior and reported daily incidences of student disengagement and refusal to learn. This disruption to their initial beliefs (that they were indeed capable and prepared for their work) depleted the meaning they hoped to derive from their work; and they soon realized the most viable way to help their students was to ensure their own wellbeing was first in order.

Early on in the study, the teachers (who were eventually placed) in subgroup two ($N = 10$) confirmed their previously held belief that taking care of their own wellbeing was an effective buffer to the possible impacts of vicarious student trauma. These teachers knew that if they did not practice trauma-informed practices as applied in their own lives, they could not effectively learn nor practice trauma-informed practice strategies with authenticity with their students. Both subgroups one and two followed the same pathway when learning about and applying TIPE in their classrooms as shown in **Figure 1**.

In pathway two ($N = 2$), the teachers reported that they *only* focused on their students and *not* on their own wellbeing as adults. They did indeed learn and use TIPE strategies throughout the school year to introduce new practice pedagogy into their classrooms to increase engagement with learning. These teachers reported some increases in practice (i.e., observing positive changes in self-regulation and relationships in students as result of TIPE) but did not apply TIPE to their own wellbeing as professionals. At the end of the study, these teachers reported either no change or decreasing wellbeing at work. The following sections detail the stories and reflections as told by the teachers themselves representing the pathways of teachers learning of TIPE.

## Pathway One: Changes to Wellbeing *Before* Practice Pedagogy
### Subgroup One: Thriving After Faced With Failure to Teach
Common patterns emerged across participants placed in this subgroup showing how meaningful work plummeted within the first half of the school year due to significant disruption to their global beliefs regarding their professional capabilities to effectively teach their student cohorts. These six teachers started the year with enthusiasm and hope, and quickly reported presentations of secondary traumatic stress, compassion fatigue and burnout. All teachers in this group experienced disruption to their own beliefs about their own abilities and purposes for teaching.

Through their learning of trauma-informed strategies the teachers focused first by increasing their own wellbeing before attempting to apply changes to their pedagogy. For this group, applying TIPE to themselves first was a priority decision made by the teachers themselves. Their school year was described by one participant as a "journey of adversity" and teachers found themselves desperately needing strategies for their own

FIGURE 1 | Teacher perspectives on the impacts of Trauma-Informed Positive Education (TIPE).
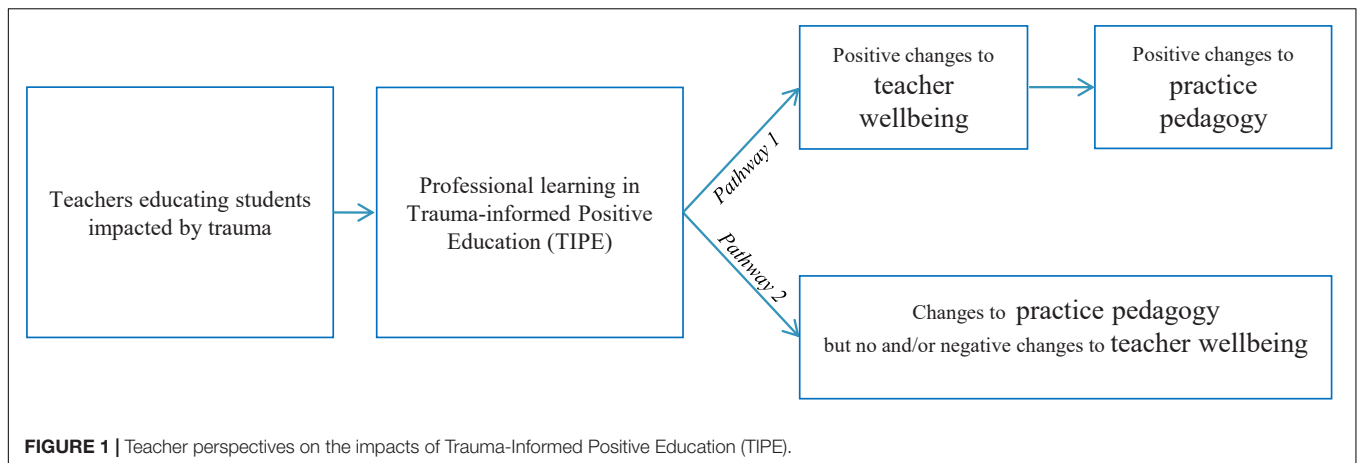
wellbeing to feel their actions had positive meaning and were connecting with students.

In keeping with IPA's focus on idiographic experiences, the reflections of one teacher in subgroup one are introduced below.[5] Carol's story represented a specific pathway toward meaningful work through disrupting previously held global values and beliefs. When Carol was asked about what made her work more meaningful, she spoke first about using what she was learning in TIPE to boost her own wellbeing, and thus she was able to cope more effectively. Later in the year, she explained she was spending much more time teaching effectively and witnessing "small wins" with students which reconnected her to her sense of meaning and purpose in her work.

*Carol: "I was a barrier."* Carol, in her early 30s, had 3 years of teaching overseas before teaching in a metro-center within Australia. Her primary teaching responsibility was in the school's specialist learning unit specifically designed for mixed-aged high school students struggling due to dysregulated behaviors, low academic achievement, and disengagement. She began her year with excitement and enthusiasm for her new school and work assignments, but her optimism quickly faded. Within the first week students were openly defiant to her instructions and refused to do their classwork. The co-teachers on her team acknowledged she had the most struggle with *her own* escalation. She reflected:

> I do need to work on self-control because I am a little bit hot-headed, I can be persistent. So, trying to control myself in certain situations from not getting hot-headed is something that I'm more aware of.

In the following interview session, she spoke of yelling at students when they talked back to her, and having students walk out of class when they did not want to do their work. In the first term of the school year, her team was learning TIPE and creating interventions for the classroom (e.g., predictable rhythms and routines in the classroom, shared ways of de-escalating students,

relationships based upon attachment and attunement, etc.). At the end of the first term, Carol shared that she was still struggling with her own personal escalated responses.

When prompted on how she was going with TIPE during the group interview, she replied:

> I feel like [TIPE] is more about us than it is for [students]. So, I suppose, because I am a pretty confrontational person, and I love the drama. I think my self-regulation has changed quite dramatically. and at my old school, you just think you're angry, you yell, or you get grumpy, and I've realised that I could've done that in the past quite a lot. So, I've really tried to work on grounding myself.

She spoke of "grounding herself" based on strategies she was learning through TIPE and from the activities that other teachers had shared in the group interview sessions (e.g., noticing escalation in her own body, centering herself, lowering her voice, taking a deep breath in front of the classroom, standing side-by-side with the student instead of looking down at them).

In her final group interview, she provided reflections on how her practice pedagogy had improved as a result of her working on her own wellbeing throughout the school year:

> I was a barrier… I realise that I actually have grown, and my resilience as a teacher, because I think I'm a pretty resilient person in my personal life, but this school made me feel really insecure and really like I was a crap teacher and not very resilient at all. But I feel like I'm able to step back and work out strategies that's not going to escalate me, escalate them.

Carol's responses throughout the sessions provided insight into the ways TIPE was enhancing her sense of meaning over time. She was able to see the benefits of the new practices she was learning upon on herself, and then she reflected that focusing on trauma-informed strategies for her own wellbeing made her a more effective teacher for the students. Her own journey toward meaningful work was a slow process because she struggled for most of the school year with the daily exposure to trauma-affected students' escalation. As evidenced through her own reflections, she noticed incremental changes to the way she felt in the work and reported positive changes in student outcomes. Getting to this personal

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[5]Only three participants are detailed within this report in keeping with this study's IPA methodology and its emphasis on phenomenological participant experience (Smith et al., 2009). Participants were chosen due to their representation of common themes across participants and contribution to novel theorizing.

insight required disrupting her initial beliefs about her own capabilities as a teacher—and forging a new path through trauma-informed pedagogy.

## Subgroup Two: A Journey of Validation

Like subgroup one, teachers in subgroup two applied the practices they were learning in TIPE to their own wellbeing before integrating it into their practice pedagogy. However, while subgroup one did this due to significant disruption to their prior assumptions about their own workplace capabilities, subgroup two described how TIPE validated workplace meanings, beliefs and practices to which they already ascribed.

*Sasha: "Your attitude becomes contagious."* Sasha, in his early 30s, had taught for 2 years at his current school, which was his first job following his university teacher training course. He was quickly elevated to team leader after a couple of years, leading four other teachers, in part because the school had significant staff turnover each year, and approximately 30% of his school's teachers were new to the profession.

He described the classroom environment in the first session: "You know you've got to look after all these kids, especially the kids that always annoy you. Kids escalating and throwing things in the classroom." He shared that both he and his teaching team needed consistent and effective strategies for *both* teachers and students to self-regulate in order to maintain healthy classroom relationships for learning. His insights suggested that he was already conscious and aware of his own wellbeing to be an effective teacher.

In the second term's session, he told stories about using TIPE strategies for himself, particularly strategies for self-regulation, de-escalation, growth mindset and resilience at home with his partner and extended family. One such example is below:

> Okay, and I just sort of found myself doing self-regulation at home. My wife rang me up and she told me, "Oh! Did you hear about this, that and that?" And I've got a really big family and everyone's in competition with each other, and she told me this story that really got me upset. Any other day I would have just lost the plot, driven to my cousin's house and had a word. But, I thought about what we've been learning, and I just said, "Yeah. . .let's just come from a different angle," and I was just really relaxed about it.

By term three, he began to actively apply his new language and learning from his personal life and personal wellbeing into the classroom. He openly modeled for the other teachers various strategies emerging from TIPE including how to describe his own de-escalating self-talk out loud and regulate students trying to self-exit from the classrooms; he created a set of over 150 emoji cards to teach emotional intelligence and prime his lessons with positive emotion; he created "red-light" and "green-light" thinking process charts to teach growth mindset; and he practiced self-regulatory strategies with the classes every day.

He also reaffirmed that an aspect of what made work meaningful to him was being a role-model to students:

> I want to be the teacher that I needed when I grew up. I think for me it's one of the most fulfilling things I've ever done. I like to say as a career it's a fulfilling career. We're a role-model because a lot of the kids might not have a mum and dad at home or someone to look up to. So, we're a lot more than what we studied for, you know?

The practices he was learning in TIPE provided him with further ways to be a role-model (e.g., role modeling emotional regulation). Moreover, Sasha noticed his entire teaching team's ability to role-model increased over time as they collectively re-imagined their profession as a role-modeling profession (instead of what Sasha described as "deliverers of information"). Like Sasha, the teachers in this subgroup all described the additive effects of their own wellbeing positively impacting their ability to work together to increase their strategies for on-task student learning.

## Pathway Two: Practice Changes Only

Teachers in this pathway reported that TIPE led to positive changes in their practice pedagogy and thus, their increased capabilities to engage students. However, they deliberately chose to not practice TIPE in their own lives inside or outside work.

*Dev: "It didn't really cross over to my personal life. . .this year my focus was 100% on giving all the information to the kids."* Dev taught years 5 and 6 in a combined classroom. He had 4 years of teaching experience, all at his current primary school. In his late 20s, he was a physically active person, always dressed in sports gear or a jersey from his local football club and would find every opportunity to get his students outside and moving throughout the day. He frequently voiced grave concerns for the impacts of trauma within the wider community (a community in which he also lived in). Dev said he felt his own pedagogical aims were validated by TIPE's focus on de-escalating stress-response systems within the body, physical activity, self-regulation, and rhythm.

He said he often connected physical activity with positive emotions and hunted for every opportunity to give students movement breaks when learning academic content. He then made a routine of asking students to reflect on how they were feeling as a result of these movement breaks called "positive primers" and "brain breaks" in TIPE. He found these movement breaks de-escalated students quickly and helped to increase student focus at the beginning of a lesson. In the interview groups, Dev frequently related TIPE to his practice pedagogy, though he plainly shared that he did not relate TIPE to his life or wellbeing outside work. He attributed this to the following:

> My personal wellbeing is dependent of my ability to switch off. Unlike a lot of other teachers, when I go home, I have the ability to block work out of home and private life.

Analysis of his responses suggested that Dev considered TIPE part of his practice pedagogy—and that practice did not include a deliberate application to his own wellbeing inside or outside of work. In the final sessions, when asked in interviews (and journal prompts) to describe what provided him with meaning at work, Dev discussed how the TIPE practices allowed him to be a better teacher, but he did not mention that TIPE influenced his own wellbeing. In the final data collection rounds, Dev reported his wellbeing "was not very

good" and had decreased throughout the year. He attributed this to school-based stressors of receiving inadequate workplace resources, unreasonable deadlines and feeling unsupported by his leadership team. He did not see TIPE as a potential way to reduce his own workplace related stressors.

## DISCUSSION

This qualitative study focused upon ways that teachers made meaning when teaching students affected by trauma and how their use of trauma-informed education strategies fostered more meaningful work. Results showed that TIPE enhanced meaning *via* two pathways: through the use of trauma-informed strategies to bolster their own wellbeing prior to embedding the strategies into the classroom, and through the direct use of trauma-informed strategies in the classroom without personal application.

Park's (2005) meaning making model is helpful here to interpret the ways in which TIPE can facilitate meaningful work when teachers experience significant disruption to their prior held global beliefs about their own ability to be effective within trauma-affected classrooms. These results suggest that meaning making occurs as a deliberate process when teachers recover from a significant disruption or stressor (i.e., encountering a highly dysregulated and volatile classroom environment of students struggling with escalating and aggressive classroom behaviors) with ongoing attempts to reduce the discrepancy between their prior (global) worldview and their current reality of adversity within their classroom (Park, 2010). For example, teachers in pathway one, subgroup one all held a prior global worldview that they were capable teachers who could work effectively in vulnerable communities.

Park (2010) asserts that by resolving these discrepancies through new learning, the meaning making process promotes better accommodation of future stressors. Interpreted through Park's meaning making model, teachers in this subgroup moved through stages toward resolution of new meaning through (1) acceptance (e.g., coming to terms with stressors in the workplace environment, and accepting that their prior reactions to ruptures were exacerbating student escalation and off-task behaviors), (2) perceiving their own growth through positive life changes (e.g., applying TIPE to life outside work; deliberating practicing self-regulatory strategies in one's personal life and then modeling those strategies for the students), and (3) reappraising the meaning of stressors (e.g., de-personalizing student stress; Park, 2010).

When considering teachers like in pathway one's subgroup two, it is helpful to recall Rosso et al. (2010) sources and mechanisms of how work becomes meaningful. For those like the teachers in this subgroup, a self-attributed source of meaningful work is one's ability to role-model wellbeing to students, a relational theme within both teacher wellbeing and practice pedagogy. This source of meaningful work, role-modeling, can become activated through all four mechanisms of meaningful work (i.e., individuation, contribution, self-connection, and unification), particularly in the mechanism of authenticity (i.e.,

role-modeling allowed Sasha to feel like his "true-self"; Rosso et al., 2010, p. 109), and mechanisms of self-efficacy and purpose.

As shown in pathway two, there may be teachers who (after learning trauma-informed education strategies) might *only* apply those strategies in their practice pedagogy and not to their personal wellbeing. To recall the teachers in pathway two, their self-reported increases in practice pedagogy strategies were promising. They deliberately tried to integrate the research on self-regulation and positive emotion into classrooms and reported that students were noticeably more engaged in lessons.

Here, Steger et al. (2012) three-factor theory of meaningful work describes how teachers can increase meaningful work in the domain of practice pedagogy: (1) *Comprehension*—teachers in this pathway readily expressed more meaning in their job throughout the year when witnessing increased engagement behaviors in students. (2) *Purpose*—teachers' learning of TIPE encouraged the creation of new strategies which fortified their aims for wanting to be effective teachers. (3) *Serving the greater good*—teachers clearly observed that new professional learning positively impacted students, the school community and the greater good within their local communities. However, like the teachers in this pathway who did not consciously practice trauma-informed strategies for themselves, teachers may quickly attribute decreases in their own wellbeing as related to structural issues within their school—for which they may have limited opportunities to change.

### Limitations

When considering limitations, it must be recognized that the teacher learning sequence of TIPE and this study's methodological strategies may have pre-constrained the findings. TIPE was learned by teachers in a specific, developmental order (i.e., first increasing self-regulatory abilities; next increasing relational capacity; and then increasing psychological resources; Brunzell et al., 2016b), and the data collection strategies captured data in the time period after teachers learned each one of these domains.

While a strength of this design allowed the researchers to focus on how teachers specifically learned (and reflected upon) each of TIPE's domains, future research with different methods may find alternative themes that do not follow the findings from this study. An alternative to the current design may be to first introduce all TIPE domains to teachers; next, allow time to pass for teachers to possibly apply these domains to their own wellbeing and practice; and then, begin data collection to explore possible impacts. Employing this kind of design would allow researchers to understand teacher priorities and workplace application when not interrupted by data collection.

### Implications and Future Directions

It is often the case that teachers who are experiencing ill-being within trauma-organized systems (Bloom and Sreedhar, 2008) are *only* given approaches that address their illbeing/wellbeing (Cartwright and Cooper, 2005). However, only focusing on teacher wellbeing fails to build teachers' pedagogical capabilities to work with students presenting complex unmet needs within

the classroom as a result of trauma. The results of this study suggest that trauma-informed education approaches to address teacher wellbeing should also include *teacher practice* as a key priority in order to support workface sustainability.

## CONCLUSION

The current study provides novel contribution to the field including a new model proposing how teachers can make and extend meaningful work using trauma-informed approaches within their classrooms. There is urgent world-wide need to provide viable trauma-informed approaches to buffer teachers against the primary and secondary impacts of distress and trauma arising through the COVID-19 pandemic (Alves et al., 2020). Teachers must be given viable ways to process and create new meaning through their ongoing exposure to student trauma. Understanding how to increase meaningful work for trauma-affected teachers can make a valuable contribution to teacher practice and wellbeing—and to enhance the outcomes for students who need to experience daily success when learning. The current evidence suggests that teachers might welcome the invitation to apply TIPE strategies to themselves and with their students.

## DATA AVAILABILITY STATEMENT

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

## ETHICS STATEMENT

The studies involving human participants were reviewed and approved by the University of Melbourne. The patients/participants provided their written informed consent to participate in this study.

## AUTHOR CONTRIBUTIONS

All authors listed have made a substantial, direct, and intellectual contribution to the work, and approved it for publication.

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# Leading Trauma-Informed Education Practice as an Instructional Model for Teaching and Learning

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Advances in trauma-informed practices have helped both researchers and educators understand how childhood trauma impacts the developmental capacities required for successful learning within school. However, more investigation is required to understand how leaders can implement trauma-informed practices in targeted areas of their schools. This paper is a case study of one school who intentionally implemented a trauma-informed instructional practice approach after undertaking trauma informed positive education professional learning over a period of two and a half years. The research was guided by three questions: how are students supported in their learning and wellbeing; how can teachers be supported to develop consistent trauma-informed practice in their classrooms; and what is the role of leadership in this process? To research the approach, quantitative measures of staff and student perceptions and qualitative strategies centering the voices and experiences of students, teachers, and school leaders, were employed. Implications for school leaders suggest that when implemented as a whole-school approach through multiple and simultaneous mechanisms, trauma-informed positive education instructional practices have the possibilities of yielding enhanced outcomes for wellbeing and enable students to be ready to learn.

Keywords: school leadership, instructional practice, wellbeing, professional learning (PL), trauma affected

## INTRODUCTION

Trauma-informed practices for teaching and learning require further exploration to better understand the ways in which school leaders can effectively implement and sustain trauma-informed practice as a whole-school approach to enhance both wellbeing and learning. Building upon the longstanding evidence of lineages such as social emotional learning (SEL; see for example Durlak et al., 2011) and the growing evidence base for trauma-informed educational practices (Berger, 2019), these advances have been shown to have positive impacts on social and emotional student capabilities. The aim is to expand the field to consider how trauma-informed practices can enhance instructional outcomes. Relevant literatures contributing to a school's trauma-informed instructional approach are drawn together, including: trauma-informed education practices; positive education; leading instruction; and professional learning.

The research (funded by Berry Street and the Brotherhood of St Laurence) is drawn from a secondary school that was experiencing difficulty with their delivery of learning and wellbeing outcomes for students (evidenced by their standardized testing and teacher judgment results as well as student responses to the Attitudes to School Survey (AtoSS). Their

journey was followed to implement a trauma informed instructional approach. This is the first two and a half years of that journey where the focus has been on student wellbeing and assisting students to be ready to learn. The contention is that through the intentional application of whole school strategies by school leadership, trauma-informed instructional models *de silo* traditional SEL approaches. Doing this enables the incorporation of knowledge of trauma's negative impacts on child development and to enact proactive strategies to enhance student engagement with learning. This knowledge is then deliberately applied to multiple aspects of school's instructional model. In short, trauma-informed instructional practices can help students and their teachers get *ready to learn*.

## Trauma-Informed Education Practice

Trauma-informed education helps teachers understand the impacts of trauma and suggests proactive strategies to position the school itself as a predictable milieu for healing and growth. Broadly speaking, trauma is an adverse experience that compromises an individual's sense of being safe in relationships and in the world around them; and can significantly inhibit both self-regulatory and relational capacities required for successful learning (Brunzell et al., 2015). After a traumatic event or a series of events, it is normal for children to experience fear, stress and a heightened state of alertness (Shonkoff et al., 2012). With simple trauma, these experiences tend to be brief, often occurring only once. However, complex relational trauma occurs over time and can be repeated often by someone known to the child. When children experience complex trauma, the effects are profound, multiple and not always well understood (Van der Kolk, 2005; Bath, 2008). Throughout the pandemic incidences of complex trauma have increased with ongoing financial insecurity, lack of social connectedness and a rise in family violence (Wilkins et al., 2021). This has manifested in young people's mental health with record levels of mental health issues being recorded for both children and young people (Brennan et al., 2021).

Complex trauma can present as a risk to children's cognitive functioning in ways that are apparent from late infancy (Cook et al., 2005). These effects include delays in developing receptive and expressive language, problem solving skills, attention span, memory and abstract reasoning (Cook et al., 2005; Shonkoff et al., 2012). As would be expected, cognitive deficits such as these adversely affect children's academic outcomes. Studies demonstrate that individuals who report adverse childhood experiences are 2.5 times more likely to experience difficulties at school (Anda et al., 2006). Such difficulties are multiple and include low achievement, participation in special support programs, early drop out, suspension and expulsion (Cook et al., 2005; Anda et al., 2006; Porche et al., 2016).

These neurological impacts of trauma have important implications for children's relationships with teachers and other adults in school settings. In childhoods characterized by supportive, attentive parents, adults can act as a mediator, helping children to respond to dangers and the effects of trauma (Van der Kolk, 2005). However, when a child presumes adults to be a threat and has difficulty forming attachments, it creates significant barriers for teachers and other professionals to assume a supportive role. The combination of these effects makes it more difficult for children impacted by trauma to independently form healthy relationships with peers and moderate their emotions in the classroom (West et al., 2014).

Aside from home, school is the place where the majority of children spend most time, highlighting the importance of making it a safe space (Downey, 2012; Costa, 2017). Feeling connected and having a sense of belonging to school are important protective factors for children (Resnick et al., 1997). It cannot be assumed, however, that schools will provide a sense of safety for children contending with trauma's impacts.

Due to the challenging behaviors that children sometimes present, schools and teachers may adopt a punitive approach in regard to their interactions with these children (Hemphill et al., 2014; Howard, 2019) that ignore a child's complex history (Costa, 2017).

In order to support children to meet their needs for safety at school, teachers should be supportive, caring, and avoid acting in ways that might trigger the child and produce power-laden behavioral responses like bullying (Bath, 2008; Shonkoff et al., 2012; Carello and Butler, 2015). To successfully support children, teachers require training about trauma and exposure to risk and how it is expressed by children (Day et al., 2015; Berger, 2019; Stokes and Brunzell, 2019). This has implications for whole-school implementation, making it vital that teachers be supported through professional learning to understand how to identify risk and how to respond in proactive ways.

## A Trauma-Informed Positive Education Approach to Teaching

From the paradigm of positive psychology and allied wellbeing sciences, positive education is the application of positive psychology interventions appropriate for use by a teacher in the classroom and is primarily concerned with improving an individual's sense of social and emotional wellbeing. It aims to contribute to their hopefulness, optimism for the future and wellbeing (Line Seligman and Csikszentmihalyi, 2000). Dodge et al. (2012) describe wellbeing as a fluid phenomenon that can be subject to change as children experience challenges and setbacks that unsettle their perceptions that all is okay with their world. In order to maintain a sense of equilibrium in their wellbeing, it is necessary for children to draw upon social and emotional capacities. This becomes more difficult for children who have experienced trauma (Mashford-Scott et al., 2012).

Positive education, that includes a focus on strategies to increase student wellbeing, then ensures that educators remember that strengths reside in every one of their students (Seligman et al., 2009). Put briefly, strength-based approaches aim to capitalize and build on children's existing psychological strengths and positive dispositions (Alvord and Grados, 2005).

Trauma informed positive education (TIPE) is one such approach using positive education strategies that was developed to meet dual concerns within the classroom for *healing* and *growth* (Brunzell, 2017, 2021). The development of the TIPE model was based upon a systematic literature review of

trauma-aware practice models (see de Arellano et al., 2008; Perry, 2009; Wolpow et al., 2009) and of the student wellbeing literature (see Peterson and Seligman, 2004; Cornelius-White, 2007; Waters, 2011).

The TIPE model is based on developmental strategies focused on three trauma-informed positive education aims: (1) to build the self-regulatory capacities of the body and emotions, (2) to support students to build their relational capacity and experience a sense of relatedness and belonging at school, and (3) to integrate wellbeing principles that nurture growth, identify strengths and build students psychological resources (Brunzell and Norrish, 2021, p. 66). TIPE was developed as a pedagogical practice model for teachers to assist teachers in supporting trauma-affected students. The three developmental aims were developed to strengthen teacher practice through an understanding of the underlying causes of student resistance and other concerning classroom behaviors (Brunzell et al., 2015) (see section "Materials and Methods" for an explanation of the TIPE professional learning model that has been delivered in schools). In an evaluation of the TIPE model when implemented in schools (Stokes and Turnbull, 2016), it was found to have most impact on student learning and wellbeing when incorporated into everyday classroom routines rather than being confined to the delivery of pastoral care and home group sessions.

## Leading Instructional Practices and the Role of Professional Learning

There has been ongoing interest in what educational leaders do to successfully lead their schools, both in learning and wellbeing as interconnected priorities. Whilst the impact of school leadership on student learning has been noted as difficult to measure (Robinson and Gray, 2019), there is general acceptance by educators that leadership is important to student outcomes (Leithwood et al., 2019). As noted by Dinham (2008) school leaders create the conditions for teachers to teach effectively and learning to take place. Equally, the impact of leadership on student wellbeing has also been difficult to measure, but the connection between learning and wellbeing is clear with the quality and design of student learning environments impacting on student wellbeing, engagement and retention (Catalano et al., 2004; Bond et al., 2007). Many researchers have sought to propose a relationship between student attitudes, student wellbeing and academic achievement (see for example Seligman et al., 2009). This is aligned with the current Framework for Improving Student Outcomes (FISO 2; Victorian State Government Department of Education and Training [VIC DET], 2022b) that places both learning and wellbeing at the center of school improvement.

Robinson et al. (2008) conducted meta-analysis research on the impact of leadership on student outcomes (as a measure of success). They note that an instructional leader focuses on specific pedagogical work of teachers in the classroom. This enables the principal to have influence over what is happening with learning and wellbeing in the classroom while not actually being in the classroom (Wahlstrom and Seashore-Louis, 2008). To be an instructional leader there are some key practices to enact. While

these practices have been developed from a range of research in all schools, they are equally relevant for leaders in trauma affected schools. These practices include creating an orderly and supportive environment in the classroom (Robinson et al., 2008); ensuring the quality of teaching through implementing a coherent instructional framework and the monitoring of student outcomes using evidence. Another important practice is to resource strategically and to understand both teacher and student time as a finite resource (Robinson et al., 2008) with the enabling of on-task learning is a valuable way to effectively use this resource.

Another key leadership practice identified by Robinson and Gray (2019) to influence student outcomes is the leadership of teacher learning and development. Robinson and Gray (2019) relate this leadership practice to the learning needs of students. Trauma informed professional learning extends this leadership practice to both the learning and wellbeing needs of students (Berger, 2019; Stokes and Brunzell, 2019). Stokes and Turnbull (2016) comment that professional learning in trauma-informed practice assists leaders and teachers to acknowledge the need for alternative instructional approaches to address the needs of students from trauma affected backgrounds. This responds to an issue faced in trauma affected schools, that of teachers experiencing professional burn out when unable to successfully teach vulnerable students (Sullivan et al., 2014).

To ensure that both leaders and teachers engage in professional learning that can change their practice, professional learning must include more than just delivery of content. Underpinning the leadership of teacher learning and development are characteristics that Thompson et al. (2020) contend will lead to effective professional learning. These include: the building of trust; subject matter that is relevant; a sustained duration of programs; opportunities for teacher reflection and personalized support to individual learning needs.

## MATERIALS AND METHODS

This study draws on a larger 4-year longitudinal study of the implementation of trauma-informed education in three schools in Victoria, Australia, that is still being undertaken. The research is guided by three questions: how are students supported in their learning and wellbeing; how can teachers be supported to develop consistent trauma-informed practice in their classrooms; and what is the role of leadership in this process? All three schools received professional learning in the TIPE model (see the process outlined at the end of this section).

One school was selected and studied in depth because of the particular work they had done to intentionally implement a trauma-informed instructional approach based on their school context. A case study approach is used as the design for this study to focus upon depth rather than breadth (Denscombe, 2003). As previously noted by their leaders, the school had longstanding difficulty delivering successful learning and wellbeing outcomes for their students. Therefore, the change in practice could be clearly followed once the initial professional learning had been delivered then sustained at the school. In

addition to this, the school was able to share school data from the first 3 years (2019–2021) that enabled quantitative and qualitative perspectives to be gathered on the changes that had occurred over time.

Permission to conduct the research was granted through the University of Melbourne's Human Ethics Advisory Committee (HEAC no. 1955892.1) and the State Government of Victoria's Department of Education (DET). Because of COVID related lockdowns and remote learning in 2020 and 2021, all research in schools was suspended for periods of time. An exemption to the suspension was granted by DET for data collection in this study at different periods throughout 2020 and 2021, but this limited the original planned data collection (two sets of interviews were planned for each year) over 2020 and 2021.

It is a descriptive case study describing an intervention and the real-life context in which it has occurred (Stake, 1995). The investigation of the implementation of trauma-informed instructional practices was from 2019 to 2021, using multiple sources of data from one secondary school and so binding the case by time and activity (Baxter and Jack, 2008). As Baxter and Jack (2008) note, case study research can integrate both qualitative (interviews) and quantitative (surveys) data to enhance the understanding of what is being studied. Of importance is the convergence of these sources in the analysis (Baxter and Jack, 2008) to add strength and credibility to the findings. The description of the implementation of trauma informed instructional practices, while a case of one school, provides findings that may be relevant to other school and educational settings (Stake, 1995).

## Context
### Student and Family Context
The school participating in this study is situated in a suburb approximately 50 km from the state's metro center. It is a suburb that has high levels of financial disadvantage and low levels of educational achievement. In 2016, the unemployment level in the region was 13.2% compared the Victorian average of 6.6% and national average of 6.9% (Australian Bureau of Statistics, 2020). The area ranks in the five most disadvantaged postcodes within the state out of 667 state postcodes (Vinson et al., 2015). Of students in this school, 68% were rated as being in the lowest 25% of the Index of Community Socio-Educational Advantage (ICSEA), a measure of socio-economic status highlighting the socio-economic disadvantage experienced by many of their students (Australian Curriculum Assessment and Reporting Authority [ACARA], 2020). Approximately 75% of students have or have had Department of Human Services (DHS) involvement within their family.

### Staffing Composition
Of the 34 teachers in the school, 56% are graduate and early career teachers with 14.5% less of this group with than 5 years of experience, 22% are graduates and 19.5% are pre graduates including Teach for Australia and those with permission to teach. Twelve percent of teachers have between 5 and 10 years of experience and 32% have greater than 10 years of experience.

## Research Tools and Analytical Strategies
Both quantitative and qualitative data was gathered from the school. Because of Department of Education research restrictions in schools, related to COVID-19, interview data was only collected in 2021. Overall, 32 interviews were conducted (leadership $N = 4$, teachers $N = 6$, educational support staff $N = 2$, students $N = 20$; years 7–12). The principal provided the research team with 3 years of VIC DET surveys from 2019 to 2021. These surveys were:

The *School Staff Survey (SSS)* (Victorian State Government Department of Education and Training, 2021)[1]. This was completed by the majority of staff (2019: $N = 35$, 2020: $N = 30$, 2021: $N = 34$).

The AtoSS Victorian State Government Department of Education and Training [VIC DET] (2022a)[2]. This was completed by the students [2019: $N = 192$ (59%), 2020: $N = 256$ (81%), 2021: $N = 260$ (83%)].

Relevant areas have been drawn on from both surveys that relate to the research study.

### Data Analysis
The framework from Miles and Huberman (1994) was used to analyze the data from the interviews with leaders, teachers, educational support staff, and students. This framework follows a four-step process: data reduction, data display, identifying themes, and verifying conclusions. In the data reduction stage, the interviews were coded from each group of participants using the research questions as an initial guide (see **Table 1** for an example of the overall research questions, the sub questions for teachers and the initial coding of responses). The data display stage with the themes from all four groups was displayed to look for patterns and interrelationships. This allowed for higher order themes (such as *the development of the trauma informed instructional model*) to emerge as the data from all four groups, contributed to the analysis. Finally, using step four of Miles and Huberman (1994) framework, verifying conclusions, the confirmability of the data was analyzed with reference to the literature (Miles and Huberman, 1994, p. 11).

From this process, three overarching themes and two sub themes emerged. See table below. These themes are used to structure the following sections where the data is presented and discussed.

### The Trauma Informed Positive Education Professional Learning Model
The school undertook professional development in trauma-informed positive education (Brunzell et al., 2015) from mid 2019 to 2021. This included four whole days of training for all staff including leadership and then further master classes (conducted face to face when possible and online) in 2021 as well. Also integrated within the third year (2021) was a coaching program for individual teachers with support from senior leaders.

| Key Questions | Sub questions, for example, used with teachers | Initial Themes | Themes |
|---|---|---|---|
| (1) How are students supported in their learning and wellbeing?<br>(2) How can teachers be supported to develop consistent trauma-informed practice in their classrooms?<br>(3) What is the role of leadership in this process? | Can you tell me about what it was like teaching at this school a few years ago?<br>Has anything changed?<br>If so, what do you think has made the difference?<br>Tell me about your teaching experience now?<br>How do you support your students in the classroom?<br>Does leadership support you to change practices in your classroom, if so how? | Escalated and dysregulated student behaviors<br>Punitive discipline responses<br>Staff experiencing secondary vicarious trauma<br>Engaging in TIPE professional learning<br>Understanding the impact of trauma on students and their learning<br>TIPE strategies to use in the classroom<br>Support from leaders to implement TIPE strategies | 1. The development of the trauma informed instructional model<br>Sub themes<br>Whole school involvement in trauma informed positive education (TIPE) professional learning.<br>The integration of trauma-informed practices into instructional practice including the development of a non-punitive behavior management system<br>2. The creation of an orderly environment for learning<br>3. An increase in positive student attitudes to school |

Each of the four training days on the five domains of TIPE and subsequent staff implementation and reflection on the implementation were all facilitated and supported by the TIPE trainer.

The 4 days of training (underpinned by the three TIPE aims as outlined in the literature) focused on the domains of:

- Body, a suite of mindsets, strategies and interventions that help students to develop their self-regulatory capacities (Day 1);
- Relationship, supporting teachers to form strong and nurturing relationships to assist students to heal, grow and learn (Day 2);
- Stamina, supporting students to sustain effort in the classroom, and to demonstrate perseverance and resilience in learning (Day 3);
- Engagement, pathways to cultivate student interest, curiosity, flow and positive emotions in the classroom (Day 3); and
- Character, building psychological strengths through crafting conversations with children about what they value and do well (Day 4) (Brunzell and Norrish, 2021, pp. 67–71).

The 4 days followed an Appreciative Inquiry Participatory Action Research Cycle (AIPARC) (Ludema and Fry, 2008; see **Figure 1**).

Initially staff were guided through the *Discovery* phase as they developed a trauma-informed positive education lens through which to understand their students' behaviors and needs.

In the *Dream* and *Design* phase staff generated and revised a question of their own to ensure that their future actions within leadership and in the classroom were meeting the current needs of their students. This involved reframing a deficit based question (i.e., *How do I fix the aggressive behaviors in my classroom?*) to an "unconditional positive question" (i.e., *What strategies can I use to increase a culture of relational density in my classroom?*). Using an "unconditional positive question" opens up new alternatives for transformation (Ludema et al., 2006, p. 155). Teachers at this school most commonly questioned: *How can I support my*

*classroom to stay on task? How can I get [student] to ignore distractions and complete his work?*

As part of the *Design phase,* leaders, teachers and educational support staff co-created strategies (four different training days for the five domains) to enact in the classroom. These included: Domain 1 Body: providing effective alternatives to exclusion when students needed to self-regulate when escalated; Domain 2 Relationships: de-escalating students through proactive relational connection; Domain 3 Stamina: taking a strengths-based approach to restorative conversations to facilitate the student back to on-task, in-classroom learning; Domain 4 Engagement: Ways to cultivate student interest, curiosity, flow and positive emotions in the classroom; and Domain 5 Character: Building psychological strengths through crafting conversations with children about what they value and do well.
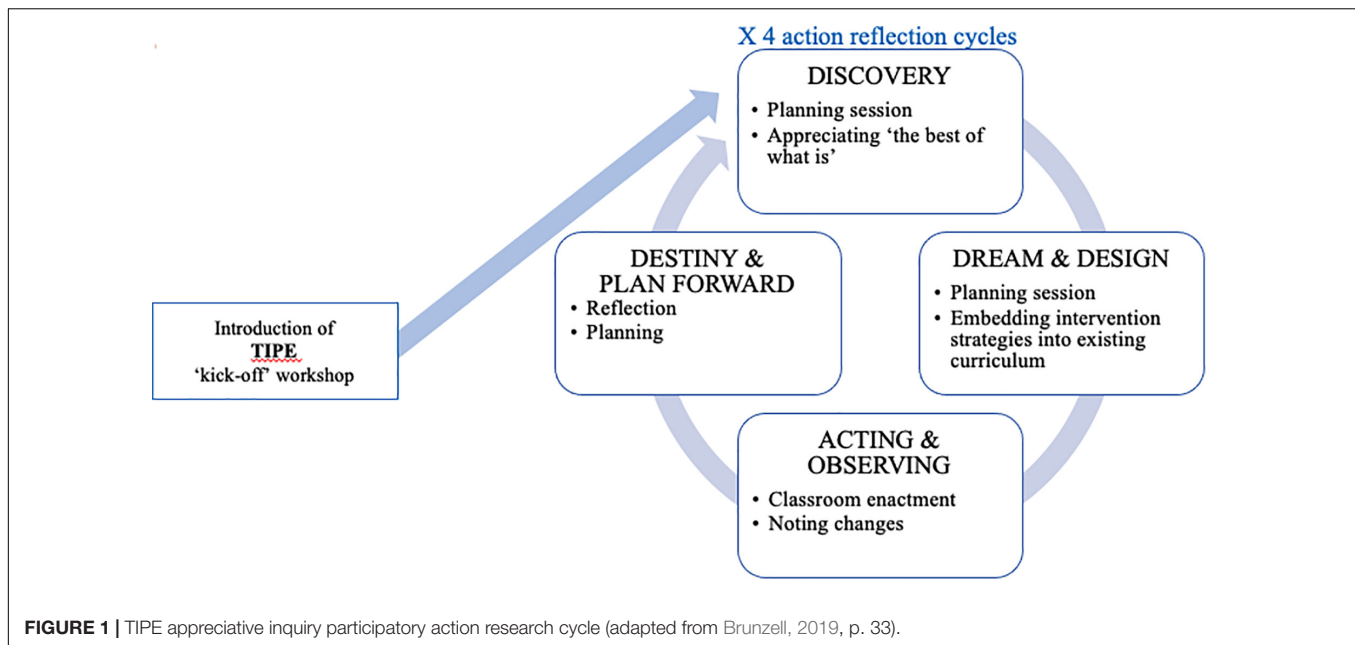
The *Acting and observing* phase involved the further refinement of whole school strategies by leadership in consultation with teachers. Teachers then implemented the strategies in the classroom with support from the leadership team.

On the next training day, the staff undertook reflection and future planning at the beginning of the training day in the *Destiny and Plan Forward* phase of the AIPAR cycle prior to moving to the next domain.

## FINDINGS AND DISCUSSION

As a unified effort, the school featured in this case study implemented trauma-informed education with it strategically positioned within its instructional practice. As Overstreet and Chafouleas (2016) note aligning trauma informed practices with ongoing educational practices can assist in the implementation of these practices into the school. This includes the incorporation of the knowledge of trauma's negative impacts on child development and learning along with proactive trauma-informed strategies to be deliberately applied to multiple aspects of a school's instructional model.

The research was undertaken at a school which had high levels of teacher absenteeism/turnover and low moral as well as low

**FIGURE 1 |** TIPE appreciative inquiry participatory action research cycle (adapted from Brunzell, 2019, p. 33).

student outcomes (both academic and wellbeing). Leadership in the school acknowledged that teachers required a significant shift to their instructional practice and a wholesale change in the way they worked together to improve student outcomes. At the stage of this research, the school, while having undertaken all the TIPE professional learning, was working consistently within the first three domains of *Body*, *Relationship*, and *Stamina*. This is reflected in the responses from leaders, teachers and students. The following section provides evidence for the school moving from being trauma-affected to trauma-informed; and outlines the instructional elements that were implemented at the school along with discussion of the preliminary outcomes from those elements including the creation of an orderly learning environment and positive student outcomes.

## Development of a Trauma Informed Instructional Model

From 2019–2021, the school leadership has taken steps to develop a trauma informed instructional model. This involved two key elements:

- Whole school involvement in TIPE professional learning (see in "Materials and Methods" for the outline of this process)
- The integration of trauma-informed practices into instructional practice including the development of a non-punitive behavior management system

### Whole School Involvement in Trauma Informed Positive Education Professional Learning

The whole school involvement in TIPE professional learning over a sustained period of time enabled the leadership and teachers to work together on issues that were facing the school. Robinson (2011) describes effective teacher learning as one that includes

all staff who have responsibility for instruction in the school to facilitate a shared responsibility for creating an effective climate for learning. This includes the participation of school leaders in the professional learning which as a leadership practice, has one of the biggest impacts on improving student outcomes (Robinson et al., 2008).

Initially teachers spoke about their understandings of students impacted by trauma. One of the teachers describes the lives of some of the students that she taught.

*I think everything is a struggle. Then when you throw in home life and those past traumas, or current traumas, in with being behind in the education, it just explodes into its own little world of understanding why these students react the way they do at times.*

A school leader described the difficulty for new teachers or teachers who had not had experience working with children who are impacted by trauma:

*They can't really see the, the bottom of the iceberg. They're only seeing what they see at the surface level stuff, they don't really see what's actually going on.*

The school's youth worker described what it was like before teachers understood the impact of trauma:

*I don't think staff were as equipped to do certain things, both teachers and wellbeing. I just think their training in certain areas, for understanding trauma-informed stuff, their empathy for certain things just wasn't as good, and it just gave more of this kind of, it was much more of a hectic, uncontrolled - like a hectic energy.*

Robinson (2011) comments that having leadership involved in professional learning allows the leaders to understand the challenges the teachers are facing in their context. This understanding was witnessed when one leader commented on the

importance of teachers understanding the impact of trauma and how the training assisted with this:

*Understanding the background of trauma and how that can manifest itself in so many different ways for a child. The willingness of staff to work through this and not just go, that's a naughty kid.*

The school staff then went on to describe the TIPE professional learning. One teacher described the 4 days of training which sustained their professional engagement with this instructional approach from mid 2019 – mid 2021 (at time of data collection) and how they transferred this learning to the classroom. As Wiliam (2014) notes teachers must be supported to develop their practice which in this case is trauma informed practice.

*Yeah, 4 days spread out and so we've had time to - we unpack one domain, talk about I guess the reasons behind it, what it looks like in a classroom, all that sort of thing. Then we have time to implement that before we go into day two.*

Another teacher described the training in more detail:

*My initial training was coming in and doing it as a whole school training, so where we met as a staff, we spent a whole day learning about what are the areas and practicing. So, we would practice strategies you could use in the classroom, so we'd go through a role play.*

To have an impact professional learning must be sustained (Knapp, 2003; Thompson et al., 2020). The implementation of all the strategies was an ongoing process of learning and trialing for teachers. One teacher commented that this would take some time to put in place:

*I think it is a lot to learn straight away and because we've only really had the couple of sessions on teaching it to the staff and - it's been a lot to take in. I think it will probably take us another little while to get everyone's heads around it and everyone doing it consistently in the classes and everyone using brain breaks and things like that.*

School leadership then developed processes to assist staff (in between the training days) to effectively implement the TIPE model of instructional practice in their classrooms. They developed a coaching process that incorporated feedback after brief observation in the classroom which as Bishop et al. (2012b) note encourages teachers to be more aware of their classroom practice and assists teachers to understand why they are making changes to their practice (Bishop et al., 2012a). Two of the leaders talked about the support they were giving staff through a coaching process focused on using trauma-informed positive education strategies. Leaders supported teachers to work together and create consistent "welcome to class slides" projected at the beginning of all classes in their year-level to ensure the same trauma-informed language was used consistently to begin the lesson:

*So, we just go into the class, talk about the entry routine, the slides at the start [requesting their students to 'find your center, breathe, and start independent reading'], or talking about those things at the start. Then, together we use those Ready to Learn Plans [defined in the sections below], find those micro-moments when a kid is*

**TABLE 2 |** School staff survey – teacher collaboration in school planning.

| Staff responses | % agree/strongly agree | | |
| --- | --- | --- | --- |
| | 2019 | 2020 | 2021 |
| Staff in this school collectively influence decisions about planning school improvement | 27 | 66 | 70 |
| Staff in this school collectively influence decisions about selecting instructional methods and activities | 42 | 63 | 76 |
| Staff in this school collectively influence decisions about evaluating curriculum and programs | 42 | 56 | 81 |
| Staff in this school collectively influence decisions about determining professional development needs and goals | 42 | 50 | 75 |
| Staff in this school collectively influence decisions about planning professional development activities | 23 | 41 | 65 |

*escalating, being able to actually see that. Then we just give them quick feedback after we go into the class. Three positives that we saw and one thing to consider. So, it's that, straightaway that feedback.*

Another leader described what they do to encourage teachers to reflect and change their practice:

*We're just going in and observing for 10–15 min and then sending an email to the staff member that says three things that they did that were great and aligned with those practices, one thing that they can consider working on and then we repeat. So, the idea is to try and not make it too laborious so that we get in lots and we can give lots of feedback.*

These ongoing sessions with individual teachers target the individual learning needs of the teachers and as Thompson et al. (2020) note, support the teachers through a personalized approach.

As shown in **Table 2**, the changes in the School Staff Survey reflect the delivery of TIPE professional learning that encourage the co-creation of activities so that teachers could personalize the learning for their classrooms.

## The Integration of Trauma-Informed Practices Into Instructional Practice

Social and emotional learning programs have primarily focused on improving wellbeing outcomes (Durlak et al., 2011) while instructional practices have focused on improving learning outcomes (Dinham, 2016). Providing trauma-informed positive education as an instructional approach in both the classroom and across the whole school enables both wellbeing and academic outcomes for students (Stokes and Turnbull, 2016). Aligning trauma-informed practices with ongoing instructional practices can bolster teacher implementation of trauma-informed practices into the school (Overstreet and Chafouleas, 2016).

In many of the interviews, staff members commented that in the past they were losing instructional time due to multiple critical incidents occurring both inside and outside of the classroom each day. These incidences were often in the form of violent outbursts or escalations that would derail the delivery

of instruction—and wasted precious instructional time. As a result of the TIPE professional learning and the clear direction of leaders (following consultation with teachers and educational support staff) decisions were made to implement a range of TIPE strategies adapted to their own school context. The instructional model changed over time and contained classroom strategies and practices that assisted students to learn skills to build networks of support, feel confident as learners and manage difficult and challenging emotions when learning.

At a whole school level, the leaders made decisions to implement a non-punitive response to behavior management. This was based on the TIPE professional learning to first understand what had been in place at the school where the punitive discipline approach ignored the complex histories of the children with whom they were working (Costa, 2017). Instead, both leaders and teachers learnt the importance of support and avoiding actions that might trigger escalated power-laden responses in children (Bath, 2008; Shonkoff et al., 2012; Carello and Butler, 2015).

A year 7 leader described the school's prior response to behavioral issues which would impede a focus on instruction:

*It's gone from a punitive to a restorative kind of practice. . .we used to have detentions and all that type of stuff and that never worked, ever. Because it just, it wasn't a timely reaction to what was going on and it wasn't a meaningful reaction to what was going on. I used to be on the detention duty a lot and there'd be kids from all different year levels and they're like, "Why am I here?"*

*I'd check the learning management system and have to say, "You're here because you were being disrespectful," and, their response was often, "I wasn't doing that, and when was it?" Last week. They're like, "Last week, why am I here now?" Because the detentions would carry over.*

A student in year 12 described the behavior she used to see and the punitive responses that teachers used which completely distracted from her learning:

*Just really, really bad behavior. Kids always getting sent out, learn nothing. They'd never come back or they'd get – we used to do like red slips, and you'd get sent out of class with that but then they'd just walk away. . .Something that just never worked with students.*

This change in discipline policy required a wholesale shift toward a proactive mindset for leaders and teachers in this school. A teacher described the changes she has seen:

*I've seen a change in this staff as well, the way they interact with students and the way that they communicate with them. I think they probably de-escalate them more than they heighten them, which is a big – from when I started. I think that some of the things that teachers said before were heightening students, and I don't think they realized it. I did at the start too. I didn't realize how to communicate with them.*

*I wasn't enquiring with students, it was more that I would say to them, "Can you sit down?" Rather than, "Hey, what's going on? Why are you standing up today?" Instead of, I would always – when I first started, I'd sort of jump to the – just telling them what to do rather than asking them what's going on with them. A lot of the time they have a reason.*

At the whole school level, school leaders developed a process that assisted them to support teachers and students in the process of being ready to learn. If a student is not ready to learn they may enact one of their Ready to Learn strategies (for example, walking outside the classroom for 5 min). Teachers webbex school leadership to notify if a student is leaving the classroom. All leaders are rostered on at different times to be in the corridors checking in (with non-confrontational approaches) with the students who are using their *Ready to Learn Plans* to take time out of the classroom. All leaders, teachers and school staff have been trained in TIPE approaches to be non-confrontational and walk side by side with students and at all times be focused on assisting students to understand their emotions and then move when ready back to learning in the classroom.

The youth worker described how he perceives the changes in the student management at the school:

*I think the biggest contributors to changes in the school so far, what I've seen, is the trauma-informed positive education stuff. The structures that are in place for support when things happen, make a huge difference. They can just rely on that. The follow-up, the immediate follow-up, the follow-up afterward, if something would happen, Previous to that we didn't have any of that. It was probably more punitive, rather than understanding as well.*

The non-punitive response to behavior management was then enacted in the classroom by teachers, with the support of leaders, using TIPE strategies. The trauma-informed instructional strategies included all-staff agreements to enact: consistent transition and entry routines; *Ready to Learn Plans* in which students self-selected de-escalation and self-regulation strategies agreed upon with the teacher for use inside and just outside the classroom; brain breaks and mindfulness to renew focus on learning; deliberately building stamina for learning by visually charting and celebrating increasing minutes on task each day; and identification of micro moments of off task behavior as an early point of behavioral intervention (instead of waiting for a "bigger escalation" to occur which the teachers were doing before their trauma-informed professional learning).

The school leaders commented that in the past, escalated and disorganized student transitions between classes and activities were having a negative impact on instructional time in the classroom. Leaders commented that teachers were taking up to 20 min of instructional time getting their students settled after recess and other teachers were feeling let down by inconsistent transition routines between the prior teacher to the next teacher.

As discussed with the school leaders, teachers and staff at the TIPE professional learning, crisp, clear and consistent transitions that co-regulate students quickly and maximize learning were critical to both trauma-informed practice and learning more generally (Robinson and Gray, 2019). At the core is the premise that leaders must see student and teacher time as a valuable resource to strategically manage to maximize learning (Robinson and Gray, 2019). Leaders then supported a change to transition routines across the school. As one teacher commented:

*The entry routines have been really good this year. A lot of the staff are doing them every single time. They're waiting at the door,*

*waiting for everyone to line up and then they're greeting each student as they come in. I think that's really good because you walk down the hallway and the kids are calm going into class.*

As students entered the class, teachers did a quick emotional check in to see how the students were feeling about school. Two students explained how this worked in their classes. One explained the strategy.

*Our maths and English teacher asks between 'one-to-five' how do we feel and how has the day gone so far? One is not even good, you don't want to be at school but you're at school, five is being you're great, you're at school, you want to learn and everything and they ask us what number are we? So if we say 2.5 they go, okay, you're still at school but you're in between. Then we prompt the students to use a strategy from their plan to boost to the next number if that will help for learning.*

The other student explained why the teachers were doing the strategy.

*It's so the teachers can see who is stressed, who doesn't want to be at school but they're still at school. So, there's something wrong in between somewhere so they can help that student out. We have to focus on strategies that build self-regulation.*

Another strategy that teachers used to maximize instructional time for all students was the *Ready to Learn Plan*. These are a pre-agreed upon plan between student and teacher which empowered the student to enact a de-escalation or self-regulation strategy before returning to the learning task. A student explained what happens:

*They're just like, show us on your hands how you're feeling today, from one to five. If people are one or two, the teachers go up to them and ask them what's wrong and if they want to use their Ready to Learn Plan.*

A school leader described the importance of *Ready to Learn Plans* to their classroom management strategy:

*It's really important at this school that kids are not in the classroom if they're not able and ready to be doing what's happening in there. We can't expect them to self-regulate by themselves in the classroom without support.*

A student described how *Ready to Learn Plans* empowered him manage his own behavior proactively:

*If I'm feeling like aggravated or just really unsettled, I'll use my Ready to Learn Plan and go get a drink. Just have a little walk outside.*

This was reinforced by another student who commented:

*Students that suffer from bad behavior, they're just not having a good day, the Ready to Learn Plan is so good because it gives that student a second chance, which I think is really good.*

One of the teachers described some of the benefits of the *Ready to Learn Plan*:

*It's a more settled environment and the students also have a feeling that they're being listened to. It gives them an opportunity to have*

*a voice, but also to reflect on their own thinking and behaviors and are they focused and ready to come into class.*

Once the class was in progress there were strategies that teachers used throughout the lesson to maintain focus on effective instructional delivery. The instructional strategies that teachers and students consistently reported were: mindfulness; "brain breaks" (giving the whole class an opportunity to pause, breathe, anchor themselves with a prompt and return to learning); strategies to build stamina for learning and identification of early micro moments of off task behavior.

The strategies place a priority focus on increasing opportunities for students to focus on the academic work. While they appear to be strategies for student wellbeing, they are also strategies to improve learning with an alignment of both wellbeing and instructional strategies to assist implementation (Overstreet and Chafouleas, 2016). Students have an opportunity to practice mindfulness, in addition to brain breaks which provide opportunities to move their bodies, take a breath, and build stamina for learning. Brain breaks were mentioned by teachers as something they could easily add to their classroom routines:

*The brain breaks I feel, like in the teams that I was in last year and I'm in this year, I think that they came in quickly and it's one of those things that it's an easy implementation and the kids were responding well. I can't imagine teaching without break breaks anymore. How on earth do you make them concentrate that long? No wonder we had so much trouble.*

Students were consistently prompted by their teachers to consider what strategies were working well for them. A student commented on how they preferred brain breaks to mindfulness:

*I like the brain breaks because it's like for 5 min then we're back doing work. So, I can sit still or do other things in brain break.*

*Mindfulness goes a bit too long. Some of the kids didn't want to do it because they couldn't sit still. I have to be doing something more physical.*

Concurring with the findings of Robinson and Gray (2019), leaders commented that teachers having proactive strategies to build on-task abilities "1-min at a time" for students who are quick to give up and avoid the task, is a critical component for improving student learning capabilities.

One leader described the work on stamina particularly in reading.

*There were strategies where we had visually tracked their on-task learning with 'stamina charts' in classrooms where kids were doing independent reading for just 2 min because that's all they could handle, now they're doing it for 20 min which is all we need in the hour lesson to give them opportunity to increase reading success.*

Finally, the TIPE strategy that teachers regularly mentioned was identification of "micro moments of off task behavior." This strategy staff to move toward an early-intervention mindset with a focus on instructional time. Prior to their TIPE professional learning, teachers were not attuned to these micro moments of student escalation or off-task disengagement (hoping the

adverse behavior would go away if ignored). The shift in early identification across the school sharpened the teachers' collective ability to quickly identify the point of successful intervention and support with students struggling to de-escalate. One of the teachers described the importance of understanding micro moments but also the mental work that that level of awareness takes:

> Seeing body language and how that's going to impact when they come into the classroom and how you might spend a little extra time with them just at the door to give them a bit extra direction or a little bit extra conversation. A little bit extra that you're keeping a watchful eye but knowing that there's trigger points for that student that you can go over and quietly talk to them as opposed to remind them out loud of something.

> So, you're watching for those moments and changing what you do for that student. That, I think that's a huge impact. I'm not going to lie to you, it's tough though, because you're constantly looking for these moments and every single student needs to be in your mind and how they're reacting and behaving to each other, to you, to the work, to the classroom setting.

These strategies are similar to what other schools have put in place when implementing trauma-informed positive education (see Stokes and Turnbull, 2016; Stokes et al., 2019; Stokes and Aaltonen, 2021 for further examples of this work in schools). Developing the whole of school non-punitive behavior management response has taken the implementation of TIPE to a whole school level that is relevant for this school context. These changes to the school and classroom environment were reflected in the student responses in the AtoSS to their understanding of the effective use of class time (see **Table 3**).

Following the implementation of the TIPE strategies, there have been positive outcomes for students at the school. These have included: the creation of an orderly environment for learning and an increase in positive student attitudes to school.

## The Creation of an Orderly Environment for Learning

The creation of an orderly and safe environment for learning, underpins the opportunity for educational improvement in a school and must be included in a teacher's instructional approach (Robinson, 2011; Sebastian and Allensworth, 2012). Leadership in this area is important so that students can experience increased academic and wellbeing outcomes (Marzano et al., 2005). Practices include clear and consistent discipline codes,

high expectations for social behavior and a caring environment (Robinson, 2011).

One of the leaders described what the school had been like and the impact of that on both staff and students:

> The staff not turning up to work was massive in the past. Oh, he's away again today, or she's away. It was pretty rough before I got here. Some kids had had three teachers, different teachers in the same class in one term, so there was a great lack of relationships, so last year was the start of building good relationships with kids across the school.

While a teacher commented on the behavior she found when she came to the school a couple of years ago:

> It was chaotic. Kids would come and go. They would be happy to verbally abuse anyone that came within 30 cm of them, even if you just looked at them. . .I think a lot of teachers struggling to make it through the day. Now it's quite calm in comparison.

The students described what school had been like for them and how it had changed.

> It used to be very 'you do the work and you listen to me.' Now it's – "the teachers work with us."

> The teachers are more like listening to students, sort of working with them and stuff like that. More cooperative.

The students described more positive relationships with teachers as TIPE has been implemented in their school. This support for students who may be trauma affected concurs with research conducted by Berger (2019) on the impact of trauma informed professional practice.

This change in the learning environment, including shifting teacher practice that is caring and supportive with clear and consistent non-punitive discipline responses has been reflected in the change in the last 3 years of data from both staff climate surveys and student attitude to school surveys (AtoSS). **Table 4** reflects the impact that the training, implementation and leadership support of trauma-informed positive education has had for teachers in the classroom. In 2019, only 15% of teachers responded that the learning environment in the school was orderly and focused. This changed to 53% in 2020 as trauma-informed positive education was being implemented and 89% as it was consolidated in the school.

**TABLE 3 |** Attitudes to school survey – effective teaching practices for learning.

| Student responses | Percentile in comparison to the State | | |
| --- | --- | --- | --- |
| | 2019 | 2020 | 2021 |
| Effective classroom behavior | 8.8 | 46.5 | 86.0 |
| Effective teaching time | 5.5 | 56.1 | 88.0 |

**TABLE 4 |** School staff surveys – the learning environment.

| Staff responses | % agree/strongly agree | | |
| --- | --- | --- | --- |
| | 2019 | 2020 | 2021 |
| Staff and teachers are protected from internal issues that disrupt teaching. | 15 | 56 | 80 |
| Staffs are protected from interruptions to their teaching time. | 8 | 63 | 73 |
| Staffs are protected from external issues that would distract from their emphasis on teaching. | 27 | 53 | 92 |
| The learning environment in my school is orderly and focused. | 15 | 53 | 89 |

These findings are further supported by the Student AtoSS of the classroom environment. As can be seen from the **Table 3** student responses on effective use of class time moved from the bottom quartile to the top quartile in the state from 2019 to 2021. This was the same period of time that the trauma-informed positive education training was undertaken by all school personnel and staff began implementing the strategies. In 2019 only 5.5% of students felt there was effective teaching time in comparison to all students in the rest of the State. This changed to 56.1% in 2020 and 88% in 2021.

## An Increase in Positive Student Attitudes to School

Within the current case study, there were noticeable shifts in the ways students positively viewed their school, their teachers, and their peer-community. It is asserted that these changes were due to proactive changes to teachers' instructional practice yielding changes in student perceptions of the school itself and thus, this cohort of students developed the ability to apply these wellbeing resources for readiness to learn. The change in student perceptions of the school was reflected in both the interview responses and from the AtoSS survey data over the past 3 years.

Comments from students included:

*Yeah, it's a lot better place to be. Like it used to be very – quite violent in a way. Like, mentally straining here because yeah, the teachers just wouldn't listen to you.*

*The teachers that we have now are just all-round nicer people. Genuine. They're not just doing it because it's their job. They genuinely want to see us succeed.*

These comments reflect the change in the way students and teachers interact and the corresponding change in student behavior and care shown by teachers toward the students.

The AtoSS survey data in **Table 5** show the change of the last 3 years as TIPE has been implemented in the

**TABLE 5 |** Attitudes to school survey – social engagement and expectations.

| Student responses | Percentile in comparison to the State | | |
|---|---|---|---|
| | 2019 | 2020 | 2021 |
| Sense of connectedness | 15 | 38.5 | 83.7 |
| Sense of confidence | 12.5 | 47.1 | 85.1 |
| Self-regulation and goal setting | 7.0 | 39.2 | 83 |
| High expectations for success | 12.5 | ND* | 89.2 |
| Teacher concern | 39.1 | 69.3 | 88.6 |

*ND, no data was collected for this question.*

**TABLE 6 |** School staff surveys – staff trust in students.

| Staff responses | % agree/strongly agree | | |
|---|---|---|---|
| | 2019 | 2020 | 2021 |
| Staff in this school trust their students. | 11 | 45 | 69 |
| Students in this school care about each other. | 43 | 63 | 76 |

school. Student connectedness to school has moved from the bottom quartile compared to other students in the state to the top quartile, as has self-confidence, self-regulation (a particular focus of trauma-informed positive education), and high expectations for success. Students perceiving teacher were concerned about them was higher in 2019 at 39% than many other measures but this as well has moved to the top quartile (88.6%) in 2021. As Bryk (2010) notes students feeling that most teachers care about them is a measure of their engagement with school.

The School Staff survey in **Table 6** further supports these changes in positive student attitudes to school with 69% of staff trusting their students in 2021 compared to 11% in 2019. In 2019, 43% of staff felt that students cared about each other, and this has risen to 76% in 2021.

Fredrickson and Joiner (2002) have shown that when primed with positive emotion and the opportunity to increase positive outlook, young people increase the likelihood of developing psychological resources for improved coping with daily adversities. Reciprocally, they also showed that increased capabilities in coping skills predicted both increases in experiencing positive emotions over time and the ability to employ social resources (e.g., connecting with one's peers in healthy ways). When students are given opportunities to nurture psychological resources for their own wellbeing such as healthy coping skills, management of their own resilient self-talk strategies, and identifying their own strengths, they increase capacity to achieve their own goals for learning (Seligman et al., 2009).

## CONCLUSION

A case study approach has been used to explore a school that has implemented trauma-informed practices as an instructional approach over the last two and a half years. The aim of this approach has been to show the ways in which trauma-informed education can be fully integrated for learning and wellbeing.

For leaders at this school, the explicit development and implementation of a TIPE approach, designed for the context of the school, brought about change. Underpinning this was the TIPE professional learning using an AIPAR cycle that provided opportunities for leaders working with teachers and educational support staff to understand issues and needs and then co-create responses to those needs. With the support of TIPE professional learning, the school leadership team were able to harness multiple levers (such as the development of a non-punitive discipline response) toward shifting staff mindsets from reactive to proactive. In addition, the consistent whole school use of TIPE strategies assisted them to proactively support the creation of classroom environments to enable students to be ready to learn.

The school has undertaken a process to implement strengths-based, positive education strategies. At this stage of the research, many of the strategies were located in the Body, Relationship and Stamina domains. Further work in the school will focus on the Engagement and Character domains as it is critical

that teachers and all school staff remember that students made vulnerable due to trauma and adverse childhood experiences have inherent character strengths within them. These students require daily reminders of the inherent value they contribute to the school and what is *right* with them on their journey of both healing and growth.

This study's mixed-method case study design drew together relevant data on the school's trauma-informed instructional approach including trauma-informed education practices, students' attitudes to school, leading instruction and the impact of the TIPE professional learning. The results offer promise to future researchers and education leaders seeking a holistic way to support school transformation journeys with underpinning evidence; and furthers the call to focus on the implementation and sustainability of trauma-informed education strategies.

## DATA AVAILABILITY STATEMENT

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

## ETHICS STATEMENT

The studies involving human participants were reviewed and approved by University of Melbourne, Human Ethics Committee HASS 1. Written informed consent to participate in this study was provided by the participants or their legal guardian/next of kin.

## AUTHOR CONTRIBUTIONS

HS constructed the research framework, conducted the research in the schools then developed the literature, collected and analyzed the data through coding, developed the themes and then wrote the findings and discussion according to the themes.

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# Trauma-informed initial teacher education training: A necessary step in a system-wide response to addressing childhood trauma

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The growing prevalence of students affected by complex trauma, and the significant implications of unresolved trauma for these students later in life, highlights the imperative for a system-wide response to address the effects of complex trauma in student populations. An important step in this system-level response is increasing the knowledge of pre-service teachers in trauma-informed education practice through initial teacher education programs. Trauma-informed education settings are increasingly being recognised as critical in the resolution of complex trauma for impacted learners; however, trauma-informed training in pre-service teacher education is lacking. While a small body of recent research has shown promise in increasing pre-service teacher knowledge and confidence in teaching children and young people affected by complex trauma, there is scant longitudinal data that informs us of how pre-service teachers may be implementing the knowledge they have learnt in their practice after they have graduated. Through survey data, the current study explored the perceptions of 124 Australian pre-service teachers' knowledge, self-efficacy, and resilience related to working with trauma-affected students before and after completing a 6-week initial teacher education unit in managing student behaviours related to complex trauma, and 1 year after graduating. Key findings indicated pre-service teachers' knowledge, self-efficacy, and resilience in teaching students with complex trauma increased dramatically from pre- to post- study of the 6-week unit and this learning continued to be evident 1 year into their teaching career. However, the data also suggest that these attributes are not something that develops quickly or without ongoing professional learning and practice. Although pre-service and early career teachers seem keen to advance their trauma awareness, it is important they receive ongoing support to develop their skills into their early careers. These findings have implications for the design of trauma-informed initial teacher education and the importance of additional early career professional learning.

KEYWORDS

trauma-informed, initial teacher education, pre-service teachers, educational systems, teacher preparation

# Introduction

University-delivered, trauma-informed training for pre-service teachers is an essential part of an education system response that is needed to address the educational and life inequities stemming from child maltreatment and trauma. Complex trauma results from repeated interpersonal harm done to infants and children, which can include physical, emotional, or sexual abuse, serious neglect, and the experience of family or other relational violence. This type of trauma can be understood as distinct from other types of trauma, as it disrupts important attachments, and it is often directed at children by the very people on whom they depend for nurture and protection. Unresolved complex childhood trauma can have severe and detrimental effects on the neurobiological, academic, and social development of children (Hobbs et al., 2019). If left unaddressed, these consequences can extend beyond childhood into adolescence and can continue to have an impact throughout adulthood, including worrying ramifications for future parenting behaviours and health outcomes (Felitti et al., 1998; Isobel et al., 2019). Also, studies have shown that there are significant longer-term and sometimes lifetime costs that result from managing these impacts, which involve significant societal expenses, including those associated with service areas such as health, welfare, unemployment, child protection and care, crime, and accommodation (Moore et al., 2015; Jaffee et al., 2018; Mo et al., 2020: Conti et al., 2021).

Trauma-informed education settings are increasingly being recognised as critical in addressing the impacts of complex childhood trauma due to the considerable amount of time students spend at school, the relative safety of the school environment, and the buffering effect provided by supportive and positive relationships that students can develop with trauma-informed educators (Hobbs et al., 2019; Pelayo, 2020; McClain, 2021). However, teachers' capacities to recognise and respond to the impacts of complex trauma experienced by their students are complex and dependent on many factors, including the preparation that they receive during their initial teacher education programs (Rodger et al., 2020). The growing prevalence of students affected by complex trauma, the significant implications of unresolved trauma for students later in life (Anda et al., 2010; Kliethermes et al., 2014), and the concerning impact that challenging student behaviour can have on teacher decisions to stay or leave the profession (Harris et al., 2019), highlight an imperative for action at an education system level. It is proposed that this systemic response must encompass the mandatory inclusion of trauma-informed teaching and learning within pre-service teacher education. To contribute to evidence in support of this proposal, this article examines a study exploring post-implementation and longitudinal impacts of pre-service teacher engagement in trauma-informed teaching and learning during an initial teacher education program in QLD, Australia.

# Literature review

Education systems in Australia and other countries are gradually accepting more responsibility for student mental health and wellbeing, including the addressing of concerns which result from students' experience of trauma, and this is reflected in increasing attention within both research and the development of education policy (TeachPlus, 2020; National Mental Health Commission, 2021). In addition, there is increasing collaboration between education sites and child and adolescent health and mental health services to support the wellbeing of young learners (Kearns and Hart, 2017). This shift has significant implications for initial teacher education programs as the higher education sector is a crucial part of the wider education system and arguably the place where teachers first have the opportunity to engage in knowledge and skill development in the area of trauma-informed education practice. To adequately respond to the impacts of complex trauma on the learning and wellbeing of significant and increasing numbers of students, there is a need to better understand the potential of teacher preparation programs and their contribution to a system-wide response.

## Prevalence, impacts, and types of trauma

During 2019–2020 in Australia, and quite consistent with preceding years, 31 out of each 1,000 children were recipients of child protection services. This suggests that significant numbers of children, from birth to age 17, have been exposed to child maltreatment (Australian Institute of Health and Welfare, 2021) indicating that there is potentially at least one child in most classrooms across the nation living with the outcomes of complex trauma. These outcomes can include challenges with learning, memory, social interaction, and emotional regulation, which can, in turn, lead to behavioural and relational difficulties in the classroom (Romano et al., 2015; Perfect et al., 2016). Further to this, it is becoming increasingly clear that many students are affected each year by additional traumatic events such as natural disasters, the fallout from the global pandemic, and exposure to violence, war, poverty, and the experience of refugee trauma (Davidson et al., 2020). These other sources of trauma can, unfortunately, exacerbate concerns with family function and family violence (Boxall et al., 2020; Newby et al., 2020; Tran et al., 2020) and can lead to an increased risk of adverse experiences and outcomes for children living in unsafe homes (Teo and Griffiths, 2020). While the harm from experiencing these additional traumatic events can be understood as different from the relational harm that arises from abuse, neglect, and family violence, these various types of trauma can interact with each other and the resulting heightened stress response can impact on school behaviour,

learning, and relationships (Siegel, 2015; Berger and Martin, 2021). If educators, and the systems and settings in which they work, are not trauma-informed, stress-related behaviours by children and young people can be misinterpreted as deliberate and defiant and this can lead to further detrimental outcomes for these students, including harsh punishments, suspension, and exclusion (Howard, 2019).

Drawing on the large body of research from neuroscience that examines the neurobiological impacts of complex trauma, it is clear that these impacts evident in childhood can last into adulthood if not resolved (Kliethermes et al., 2014). It is also becoming increasingly clear that there are protective factors that can mitigate the effects of complex trauma and significantly alter the trajectory of a child's life, and these include safe, stable relationships and environments (Burke Harris, 2018). A nurturing environment in which a student has ready access to safe adult relationships can re-shape stress-altered neural pathways in the brain and facilitate healing from the effects of adversity (National Scientific Council on the Developing Child, 2004; Burke Harris, 2018; Coch, 2018). The importance of relationships in promoting healthy neurodevelopment is well documented and is a key factor in the success of trauma-informed practice in education settings (Morgan et al., 2015; Siegel, 2015; Little and Maunder, 2021). For example, a warm, available, and responsive educator can have a positive and adaptive impact on the parts of the brain that manage emotional regulation, a vital skill for student success within the classroom environment (Carello and Butler, 2014). Understanding how the relational experiences of a student can shape and re-shape their brain development and structure suggests that schools should provide opportunities for educators to offer this important relational activity. However, it is vital that educators are trauma-informed and prepared for this activity from early in their careers, suggesting that trauma-informed training for pre-service teachers is essential.

## Graduate teachers are under-prepared

Despite the increased international interest and growth in trauma-informed educational practice, research continues to highlight a lack of teacher preparedness to respond adequately and inclusively to trauma-affected students. This lack of preparedness is evident in practicing teachers and even more so in new graduates and pre-service teachers (Brown et al., 2020; McClain, 2021). For example, McClain (2021) interviewed 15 early childhood pre-service teacher candidates in the United States, and while all participants believed that there was a high prevalence of complex trauma and that it was very likely that they would encounter trauma-affected students in their future classrooms, 60% reported that they were only "somewhat prepared" to support these students. Although the training these pre-service teachers had received did mention trauma, there was

no explicit teaching and learning dedicated to the understanding of trauma and its influence on learning and development. Nor was there dedicated coursework reflecting recommended trauma-informed responses. As another example, Davies and Berger (2019) reported similar findings from their interviews with Australian primary and secondary teachers who were already teaching in the field (*n* = 11) and who indicated that they felt underprepared to respond to students affected by domestic violence due to a lack of pre-service training and experience. All participants in this study spoke about the lack of pre-service training within their university programs in the areas of trauma awareness and responses to support students who had lived with domestic violence.

Studies have also explored the relationship between pre-service teacher education and teacher preparedness for supporting students who live in poverty, a context that can be associated with the existence of child maltreatment (Drake et al., 2022). Robson et al. (2021) found pre-service teachers anticipated their work would involve students affected by poverty; however, they felt underprepared for how best to recognise and support these students. Longaretti and Toe (2017) interviewed 17 Australian principals in relation to preparation of pre-service teachers to teach in low socioeconomic areas. They indicated the need for pre-service teachers to have knowledge about the impact of trauma and intergenerational poverty on the learning and behaviour of students and highlighted the importance of the voice of school leaders in establishing priorities for initial teacher education training. Lampert (2020) advocated that the disadvantage from poverty needs to be recognised and pre-service teachers need to be better prepared to support students with this form of educational disadvantage.

In response to concerns with teacher preparedness, some teacher training programs do include teaching and learning activity related to trauma-informed education in schools. Some university courses include teaching of trauma-informed content within mandatory mental health training (Rodger et al., 2020). Some pre-service education courses include a focus on child protection practice to prevent harm from occurring to children but may or may not include what to do once harm has already occurred (Walsh et al., 2011). Other courses focus on embedding knowledge of trauma within a broader body of teaching dedicated to inclusive education or social and emotional learning (Kearns and Hart, 2017; Bradford et al., 2021). It is beyond the scope of this article to provide a global, or even an Australian overview of teacher training courses and whether or not they include trauma-informed content. However, it is clear that course content in trauma-informed education practice within pre-service teacher education does vary in detail, depth, and delivery, and this can impact on how well pre-service training can impact on future practice.

Evaluations of pre-service teacher education course content regarding trauma and trauma-informed practice have shown

that including this learning opportunity has potential to increase recognition and support of trauma affected school students and to enhance the personal and professional wellbeing of early career school educators (Brown et al., 2020; Ellison et al., 2020; Rodger et al., 2020; Shooks, 2020; DiMaria-Sileno, 2021). One training evaluated by Rodger et al. (2020) assessed outcomes of the Trauma and Violence Informed Care component (6 h) of a mandatory 12-week course in mental health literacy for 287 Canadian pre-service teachers. Findings suggested that attitudes toward trauma-informed care, and self-efficacy for using inclusive education practices, increased significantly after participation in this course. Brown et al. (2020) reported that a 3-h trauma training for 180 teacher candidates in the United States increased participants' knowledge and skills to respond to trauma. Foreman and Bates (2021) reported that a 90-min training in trauma awareness increased teacher candidates' ($n = 41$) knowledge, awareness, and self-efficacy for working with students affected by trauma. These findings are perhaps unsurprising, given that these learning opportunities have introduced new knowledge and material to pre-service teachers and researchers collected follow-up data immediately after the training, when knowledge retention could be at its greatest. However, what is lacking in the research literature are longitudinal studies that explain how pre-service teachers may be implementing the knowledge they have learnt during their pre-service education, after they have graduated and during their early careers.

## Supporting the personal and professional wellbeing of educators

An important piece in the system-wide response to supporting students affected by complex trauma is understanding the significance of vicarious trauma in educators, also known as secondary traumatic stress. Authors, researchers, and clinicians can differ in how they define and use these terms, but for the purposes of this article, this type of trauma can be defined as a transformation in the educator's sense of identity, purpose, and efficacy, resulting from repeatedly using controlled empathy when listening to, or seeing evidence of, students' experiences of trauma (Borntrager et al., 2012; Brunsting et al., 2014; Helms-Lorenz and Maulana, 2016). For educators, this can result from their over-connecting with the traumatic life experiences of students (Christian-Brandt et al., 2020). Vicarious trauma is a concern that is not uncommon with people working in the human services, mostly because these people view the work that they do as more than just a job, but more so as part of who they are. This can lead to vulnerability in educators who work with high-risk populations and who encounter multiple exposures to students who have experienced, or continue to experience, traumatic events. However, a study by Christian-Brandt et al. (2020) found that trauma-informed

training and service delivery in schools can help to mitigate vicarious trauma. The study examined 224 teachers following 2 years of trauma-informed training in a low-income school district and found that working in a trauma-informed manner helped to address chronic exhaustion and cynicism in teachers whilst strengthening their self-efficacy regarding their work and their positive feelings related to helping students. Other authors examined the impact of pre-service education on the experience of vicarious trauma. Miller and Flint-Stipp (2019) highlight the importance of including content in relation to vicarious trauma and educator self-care into teacher preparation programs to prevent graduates experiencing future vicarious trauma. Fabionar (2021) recognise that providing pre-service teachers with knowledge and skill in social and emotional learning not only helps to facilitate these capacities within their future students but also can be protective of their own emotional wellbeing throughout their careers and can lead to longevity in their professions.

## Addressing inequity

Training pre-service teachers in trauma-informed practice can also be viewed from a social justice and inclusive education perspective (Bradford et al., 2021). At the time of writing this article, this view is perhaps becoming more prevalent as events in Australia and globally have highlighted inequities for some already disadvantaged groups of students, whose circumstances have worsened due to the global pandemic, natural disasters, and other local or global calamities that include conflict and war. There is now an increased impetus to re-evaluate education systems, educational policy, and school service delivery to address harm and inequity experienced by children and young people (Greig et al., 2021). As is in many countries, it is becoming increasingly clear in Australia that despite an overt focus on teacher education reforms, curriculum revisions, and teacher quality standards, marginalised and "at risk" students are still underperforming and are over-represented in suspension and exclusion data (Graham et al., 2022). Also, graduate teachers still feel under-prepared to teach in a manner that services the whole range of diversity present in contemporary classrooms (Rowan et al., 2021), including those who are perhaps misunderstood due to their behaviour that is affected by the impacts of complex trauma (McClain, 2021). There are many complex and interacting components within education systems that can affect student outcomes. However, an increasing emphasis on teacher training that enhances teacher capacities to reduce educational and social inequities for disadvantaged groups of children and young people, including those impacted by complex trauma, presents an opportunity to address significant global, and local concerns regarding inequity. However, in many countries, including Australia, despite this system-level response being identified as necessary

(Howard, 2019), efforts have been piecemeal, uncoordinated, or just not yet addressed (Quadara and Hunter, 2016).

One example where efforts to address inequity through pre-service teacher education is underway is in Indiana State in the United States where legislation was recently passed stating that all teacher preparation programs provide curriculum to develop trauma awareness and social and emotional skills in pre-service teachers (TeachPlus, 2020). Research interviews with staff and administrators from the eight universities across the state indicated that faculties were in agreement regarding the incorporation of trauma-informed and social emotional learning curriculums within their teacher preparation programs. However, participants also suggested that the new legislation did not articulate clearly enough the requirements for universities and that this had led to diverse interpretation and implementation of the legislation. To address this, participants recommended specific training regarding how to incorporate these curriculum aspects into their programs.

Although not mandated in Australia, some pre-service teacher education in in trauma-informed education is occurring. The purpose of the study discussed in this article is to explore the short- and longer-term outcomes of trauma-informed pre-service teacher education delivered by a university in Queensland through a pre-post longitudinal survey research design. The research question asks, "What are the initial perceptions of pre-service teachers' knowledge, self-efficacy and resilience related to working with trauma-affected students, before and after completing a 6-week initial teacher education unit in managing student behaviours related to complex trauma, and then importantly, 1 year after graduating?" While the study explores a context that is limited to Australia and is relatively small, findings are reflected in other research that highlights the importance of formal training in trauma-informed education practice in initial teacher education programs.

## Materials and methods

### Participants

Longitudinal survey data were collected from Australian pre-service education students who studied a 6-week elective that focused on managing challenging student behaviours related to complex trauma, during their final year of a Bachelor of Education degree. Ethical approval for this research was granted by the relevant institutional committee. Participants were University students enrolled into the elective unit recruited into the study through the university communication channels, including email, the online learning platform for the elective, and online and in-person class announcements. Participants provided informed consent and completed an online survey before commencing the elective (pre-training, $n = 344$), after completing the unit (post-training, $n = 143$), and during their

first year of teaching (follow-up, $n = 20$) and second year of teaching ($n = 3$) after graduation. Data were collected from three cohorts of students, during elective offerings in 2017, 2018, and 2019. Enrolments of pre-service teachers into this elective steadily increased over these years with 40 enrolled in 2017, 120 in 2018, and 487 in 2019. Only students in their final year of study were eligible for participation in this research. The number of students participating in the study reflects a response rate of 53.2% for the pre-survey; however, follow-up participation declined significantly over the data collection period. Further, through difficulties with matching pre-and post- data, the final participant number was 124 students who had matched pre- and post-training data for all survey questions. Due to the significant attrition in response rates for the first and second year of follow-up, no data from this time point is included in the analyses, however, some data from the first year of follow-up is presented tentatively for discussion.

## Trauma-informed pre-service education training

The trauma-informed education training investigated in this study is a 6-week elective within the undergraduate Bachelor of Education course, requiring students to engage in approximately 6 h of contact or on-line work each week and the completion of two written assignments. Details of the training are provided in Table 1.

## Research framework, survey, and data analysis

To explore the research question for this study, "What are the initial perceptions of pre-service teachers' knowledge, self-efficacy and resilience related to working with trauma-affected students, before and after completing a 6-week initial teacher education unit in managing student behaviours related to complex trauma and 1 year after graduating?," a pre-post longitudinal research design was implemented. Participants were surveyed immediately prior to their study of the 6-week trauma-informed elective described above, then followed up immediately after completing the 6-week unit. Participants were also followed up at one and 2 years post-graduation in an attempt to understand longitudinal outcomes of participation in the trauma-informed elective; however, due to limited follow-up data, this aspect of the research design could not be included in the formal analysis.

The survey was designed for this research and collected data on pre-service and early career teachers' perceptions about their knowledge, self-efficacy, and personal and professional

TABLE 1   Details of the Pre-service Teacher Education Trauma-informed Training (TIDiER* Checklist).

| | |
|---|---|
| **1.** | **NAME** |
| | Pre-service teacher education elective in trauma-aware education |
| **2.** | **WHY** |
| | Trauma aware education is a growing field of interest in practice, policy, and research. Graduate teachers are highly likely to encounter students affected by complex trauma in their career. Due to the detrimental effects of complex trauma on learning and behaviour, teachers need to be trained in how to support students affected by complex trauma. Pre-service training in trauma-informed practice is a critical piece of a system-wide response to increasing trauma awareness. |
| **3.** | **WHAT** |
| | Weekly study material consisted of a 2-h recorded lecture and 3-h live tutorial each week and included reading and video materials that students could access at their chosen times each week on the university learning platform. A summary of the training content included: |

| Week | Topic |
|---|---|
| 1 | Introduction to complex childhood trauma and its impact on individuals, the schooling experience, and life outcomes. |
| 2 | The science underpinning the neurobiological impact of complex childhood trauma. Exploration of what can be done to address this and to help children and adolescents who are living with the outcomes of complex trauma–particularly during their school experiences. |
| 3 | The fight, flight, freeze response and a number of trauma-aware strategies for schools and classrooms. |
| 4 | Whole-school approaches to trauma-aware education, teacher self-regulation, and trauma-aware crisis management. |
| | *Assessment 1: Case studies–identify challenges and recommendations for trauma-affected students* |
| 5 | Child protection, intergenerational transmission, and the needs of particular student groups. |
| 6 | Costs vs. benefits of keeping students from trauma backgrounds in schools, teacher attachment styles, teacher self-care, vicarious trauma and teacher resilience. |
| | *Assessment 2: Essay–Advocate for trauma-aware practice in your educational setting* |

| | |
|---|---|
| **4.** | **WHO PROVIDED** |
| | The elective was developed by a university academic with expertise in school education, the neuroscience of complex trauma, child development, and extensive experience working with schools as a guidance counsellor and behaviour specialist. The academic was supported by a specialty teaching team consisting of educators from the university education faculty and trauma-aware practitioners who were working in fields such as guidance counselling and behaviour support. Each member of the teaching team was qualified at a Doctorate or Masters level in their relevant fields. |
| **5.** | **HOW** |
| | The 2-h lecture was presented live each week by the lead academic. The format focused on delivering information directly to students through lectures and included some video examples. The 3-h tutorials were presented live each week by the teaching team and students could choose from time-tabled classes. The tutorials were designed to be interactive and included group work and discussion. Students also had access to additional reading and video material on the university learning platform. This consisted of curated readings and links to the library resources, videos illustrating practical information and strategies, as well as recordings of the lectures and copies of lecture and tutorial materials. |
| **6.** | **WHERE** |
| | This unit was delivered solely at the university where the pre-service teachers were enrolled as part of their undergraduate teacher education program. |
| **7.** | **WHEN and HOW MUCH** |
| | Over the study period, the 6-week unit was delivered twice each year, or once a semester, for three years. |
| **8.** | **MODIFICATIONS** |
| | Minor adjustments to the unit content and delivery occurred over the study period in response to student feedback, teaching team feedback, and updated literature and research. These adjustments were made as part of normal teaching reflection and would not have had a significant effect on data collected. |

*Adapted from Hoffmann et al. (2014).

resiliency in relation to working with students affected by complex trauma. The survey included items that mostly stayed the same across the four collection points and consisted of quantifiable responses as well as an extended, qualitative response. The quantitative items included an initial question asking if participants had worked with trauma-affected students, followed by two items measuring knowledge, two items measuring self-efficacy, and nine items measuring resilience. The open-ended question asked participants to briefly describe their feelings related to teaching students affected by trauma.

Quantitative data across all three data collection time points were collated into a combined dataset for analysis in SPSS Version 28 (IBM Corp, 2021). Participants were asked to enter a unique code at the beginning of each survey, and this was used to match responses over time. Mean scores for knowledge, self-efficacy and resilience were compared using paired $t$-test analyses. Qualitative data was exported into an Excel spreadsheet and coded thematically (Braun and Clarke, 2006) to identify participants feelings about teaching students affected by trauma. The first author completed initial coding

and re-coding of the dataset and this was checked by the second author. Consensus on coding was reached through dialog.

## Results

Participant attrition was significant in the follow-up surveys conducted as part of this study and possible reasons are discussed further in section "Discussion." To investigate the possibility of differences between the sample of those participants who completed follow-up surveys and those who did not, initial analyses were conducted comparing baseline knowledge, self-efficacy, and resilience between those participants who completed just the pre-survey ($n = 341$), and those who completed both pre- and post-training surveys ($n = 124$ matched participants). No statistically significant differences between groups were found. For example, the difference in knowledge scores pre-training for those who completed the pre-training survey only ($M = 1.92$, SD = 0.60) compared with the scores of those who completed both pre and post-training surveys ($M = 1.97$, SD = 0.67), was 0.52, 95% CI [$-0.09$, $-0.19$], and was not statistically significant, $t$ (340) = 0.735, $p = .463$.

All participants were asked whether they had worked with or taught students who had experienced complex trauma and who exhibited challenging behaviour. Findings indicated 60.1 percent ($n = 205$ of 341) and 64.5 percent ($n = 80$ of 124) of participants had worked with these students pre- and post-training, respectively. While this experience mostly related to university required practical placements, these data do indicate the high prevalence of students living with the outcomes of complex trauma in schools and the strong likelihood that graduates will be working with or teaching these students in their early and ongoing careers. While the small number of students who completed the follow-up survey was a limitation, the proportion who reported working with students affected by trauma increased to 80.0% ($n = 16$ of 20) of those surveyed 1 year after graduating.

## Knowledge, self-efficacy, and resilience for working with trauma-affected students

Pre-service teachers' knowledge, self-efficacy, and resilience related to their teaching of students affected by complex trauma were measured using the survey designed for this study to capture data related specifically to the unique content and unit outcomes of the training. Knowledge, self-efficacy, and resilience data were collected prior to commencing the 6-week unit (pre-training) and immediately after completing the unit (post-training).

All items were measured on either a 4-point Likert type scale (knowledge and self-efficacy) or a 3-point Likert-type scale (resilience), with higher scores representing greater knowledge, self-efficacy, and resilience. Average scores were calculated for each scale for both pre-and post-training data. As the survey was designed for this study and had not been used before, internal consistency was investigated for each scale using pre-training data. Cronbach's alpha coefficients indicated high reliability for the Knowledge (0.837) and Self Efficacy (0.787) scales, with the Resiliency scale showing slightly lower reliability (0.616), possibly due to the higher number and greater variability of items. Removing particular items did not change the reliability of the scale significantly, so all items were included in the analyses.

Knowledge was measured through two items asking pre-service teachers to rate their knowledge of (1) how complex trauma affects child and adolescent development and (2) how trauma affects student behaviour and learning.

Participants could respond to the questions on a scale of (1) *I have no or minimal knowledge or understanding of this topic*. (2) *I have some knowledge or understanding of this topic*. (3) *I have a reasonable knowledge or understanding of this topic*. (4) *I have a strong knowledge or understanding of this topic*. A paired *t*-test was performed to compare the mean difference between both time points for the 124 matched participants who completed this scale on both surveys. On average, knowledge and understanding of how complex trauma affects child and adolescent development and student behaviour increased from pre-training ($M = 1.98$, SD = 0.66) to post-training ($M = 3.48$, SD = 0.56). This difference, $-1.49$, 95% CI [$-1.6$, $-1.3$], was statistically significant, $t$ (123) = $-20.11$, $p < .001$ and represented a large effect size, $d = 0.83$.

Self-efficacy data were collected from two items (confidence and skill) related to teaching students living with the outcomes of complex trauma. Participants could respond to the item related to confidence on a scale of (1) *I have minimal or no confidence at this time*, (2) *I am a little confident at this time*, (3) *I am reasonably confident at this time*, and (4) *I am very confident at this time*. Similarly, the scale for skill level was (1) *I have minimal or no skill in this area*, (2) *I have some skill in this area*, (3) *I have reasonably skill in this area*, and (4) *My skills in this area are strong*. Self-efficacy increased significantly from pre ($M = 1.66$, SD = 0.61) to post-training ($M = 2.71$, SD = 0.53) as indicated by a paired *t*-test conducted with pre and post-training data. This difference, $-1.05$, 95% CI [$-1.6$, $-1.3$], was statistically significant, $t$ (123) = $-15.85$, $p < .001$ and represented a large effect size, $d = 0.74$. While limited by a small, and possibly biased sample, this increase in self-efficacy score appeared to be maintained after participants had graduated as indicated by data collected from participants 1 year after graduating ($n = 20$, $M = 2.56$, SD = 0.54).

Resilience for teaching students affected by complex trauma was measured through nine items related to different aspects of working with these students. Participants could respond on a scale of 1–3. Wording of the scale for each item was specific to the question asked, however, generally the scale reflected (1) *Very often*, (2) *Sometimes*, and (3) *Almost never*. Items were reverse coded where applicable and combined to obtain mean resilience scores. The first two items asked how much pre-service teachers were (1) emotionally affected and (2) challenged by working with these students. The next two items related to how much participants thought they could (3) build positive relationships, and (4) help students with behaviour and learning. The next two asked about their (5) ability to switch off from thinking about these students after work, and (6) how often they thought they would lose sleep thinking from worrying about these students. The final three items asked about whether participants felt they (7) could make a difference, (8) would enjoy working with these students, and (9) would be glad they had chosen teaching as a career despite the challenges of working with these students. Resilience scores increased from pre ($M$ = 2.17, SD = 0.26) to post ($M$ = 2.57, SD = 0.24) training. This difference, $-0.40$, 95% CI [$-0.4$, $-0.3$], was statistically significant, $t$ (123) = $-15.67$, $p$ < 0.001, however, only represented a small effect size, $d$ = 0.28. Greater than pre-training resilience scores appeared to be maintained at 1-year follow-up as indicated by limited follow-up survey data ($n$ = 20, $M$ = 2.46, SD = 0.27).

## Qualitative data

The qualitative data analysed in this study included participant responses to the question: *Briefly describe how you feel right now, about the possibility of your teaching students who have experienced complex trauma and who exhibit challenging behaviour now or in the future.* This question was asked at all three time points and it was clear from the main themes that emerged, that this response changed over time. A total of 291 participants answered this question at T1, and a total of 119 participants answered this question at T2. Where participants wrote more than one answer in response to the question, only the first answer was coded and included in the analysis.

Prior to studying the 6-week unit, half of the responses to this question were characterised by feelings of nervousness, lack of preparation, and anxiousness (51%, 148/291 responses). There were also some positive responses (32%, 93/291) characterised by phrases such as "excited," "ready for the challenge," and "eager to learn more." The remaining responses (17%, 50/291) were more ambivalent, and emerging themes in this group were characterised by words such as "somewhat prepared," "hopeful," or "unsure."

There was a greater proportion of positive responses from participants after studying the 6-week unit than prior to the training, with the majority of post-training participants (76%, 90/119) feeling more prepared and more confident to teach those affected by complex trauma. For example:

> I feel much more aware of why students may exhibit challenging behaviour and I am more empathetic toward these students now. I feel like I still have a lot to learn, but I no longer feel ignorant. In fact, I feel like I am able to share what I have learned with others in a confident manner. I feel like this course has changed the way I look at students and it has definitely changed the way I will care for my students.

The remaining participants (24%, 29/119) indicated they still felt nervous, apprehensive, or intimidated. However, it is worth noting that 18 of these participants (62% of this group) also indicated that despite their nervousness, they still felt more confident in their ability to make a difference in their students' lives than before the training. This is exemplified in the following quote:

> I would definitely be nervous about teaching these students, however, I feel like I am now somewhat equipped with enough knowledge and strategies to be able to help these students, and cope at the same time.

Most participants who completed the follow-up survey 1 year after graduating indicated they continued to feel more prepared and confident to teach students affected by complex trauma (89%, 16/18). However, the data also suggest that these attributes do not develop quickly or without ongoing professional learning and practice. This is highlighted in a participant's response after 1 year of teaching:

> I feel quietly confident but also excited to face the challenges that come with this. I would definitely need more understanding and knowledge of the impacts trauma has on the brain and also the people around them (peers and teachers).

Two responses (11%) indicated some participants still felt "daunted" and "uneasy."

## Discussion

Findings from this study showed that including teaching and learning regarding trauma-informed education practice within initial teacher education programs can enable pre-service teachers to feel more prepared to support students living with the outcomes of complex trauma. This finding is reflected in other research, and although the content,

duration, and delivery may differ according to the pre-service education context, researchers do agree that initial teacher education programs can play a significant role in helping teachers prepare for, identify, and respond to those affected by trauma (Brown et al., 2020; Rodger et al., 2020; Foreman and Bates, 2021). What is less known, is how pre-service teachers may be implementing this knowledge after they have graduated.

The unique contribution of the current study is the attempt at longitudinal follow-up of these pre-service teachers and the comprehensiveness of the initial training. To the authors' knowledge, no other research has investigated the longer-term impact of trauma-informed initial teacher education training for pre-service teachers moving into their teaching careers. Pre-service teacher knowledge, self-efficacy, and resilience for teaching students affected by complex trauma increased significantly after completing the 6-week trauma-informed training investigated in this study and the influence of the 6-week training, although limited by significant attrition of the sample, continued to be evident 1 year into participants' teaching careers. These findings are particularly relevant when the majority of those followed into their first teaching year indicated that they had worked with students affected by complex trauma and that their pre-service training had contributed to positive outcomes for these students.

The elective investigated in this study was quite comprehensive (6 weeks of 6 contact hours per week) when compared to other offerings examined in the research literature, for example the 3-h training presented by Brown et al. (2020) and the 12-h training investigated by Rodger et al. (2020). It is understandable that a more thorough training involving a longer time period is likely to have greater influence on pre-service teacher outcomes. However, as the efficacy of these different training programs was not compared across studies, we cannot speculate on the dose-response relationship between time spent training and future impact. What is clear, is that the comprehensive training examined in this study did result in strong outcomes, but more research examining outcomes of learning opportunities in trauma-informed education for pre-service teachers is still needed.

The findings of the current study indicate that engaging in the 6-week elective helped pre-service teachers feel more prepared and confident to work with trauma-affected students, and this sentiment remained into the first year of their careers. However, the responses from participants who were followed into their first year of teaching, also implied that there their university training was not enough, and ongoing support and training was needed. Similar findings were reported by other Australian researchers (Davies and Berger, 2019), who recognised that while there is a significant need for increased training in identification and support of domestic

violence exposure for students in teacher preparation programs, this cannot be without ongoing consultation, training, and support during their careers. So, although pre-service teachers seem keen to advance their trauma awareness and respond well to pre-service education on this topic, it is important that they also receive ongoing support to develop their capabilities into their early careers. These findings have implications for the design of trauma-informed initial teacher education and for the ongoing professional learning of teachers.

Despite the large body of literature investigating the influence of pre-service teacher beliefs, knowledge, self-efficacy, and skills on student outcomes, or the overall impact of teacher preparation programs, the concern remains: marginalised and disadvantaged students are still falling behind in a range of educational outcomes (Fernandez, 2019; Graham et al., 2022). Also, teachers continue to report under-preparedness for teaching these students (Rowan et al., 2017, 2021). Whilst the findings of this study contribute toward a much-needed evidence base that justifies the inclusion of initial teacher education in trauma-informed practice, there remains a dearth of this type of education within university programs in Australia and beyond. It is clear that to address the significant inequities in education and life outcomes that result from students' exposure to trauma, there is a need for comprehensive and systemic responses that include mandatory pre-service teacher education in trauma-informed practice.

While the current study contributes to the field by providing some evidence that graduate teachers who receive significant training in trauma-informed practice are potentially more "prepared" or resilient for when working with trauma-affected students, further research is needed. As examples, future research could investigate the outcomes of pre-service education in trauma-informed practice that extend past the early career period, or the outcomes of combining pre-service and early career training. Longitudinal or retrospective research studies could examine the influence of adequate teacher preparation in trauma-informed education practice across wider system measures over time, such as student education attainment, employability, and social and health outcomes, or staff personal and professional wellbeing. The influence of teacher education programs must also not be isolated from the other components of education systems, and the research community would benefit from larger scale studies exploring the multiple aspects of the "systems" of education in which initial teacher preparation is embedded and makes an important contribution.

It must be noted that, despite the positive findings of the current study, there are limitations that need to be acknowledged in relation to this research. First, longitudinal data collected over time resulted in attrition of follow-up which was likely due to communication difficulties. Whilst studying with the university, students were readily contactable through

their student email accounts but after graduation researchers were depending on students responding to their private email accounts, and many did not. Also, researchers were unable to ascertain differences in populations of those who completed follow-up vs. those who did not, hence those who completed may have been biased toward this research topic and more interested in trauma-informed education. This bias could also be present due to participants being those who had voluntarily chosen to study the pre-service elective being examined in this study. As this was not a mandatory part of the teacher education program, these findings cannot be generalised across the wider pre-service teacher population, but certainly can inspire further studies.

A further limitation was the design of the survey. Knowledge and self-efficacy were measured using only two items per scale. This was to reduce cognitive load for participants and keep the survey within a reasonable length. Similarly, the three-point Likert-type scale used for the Resilience items was designed for ease of use by participants. A more robust measure of these constructs could be designed for future research, allowing a more-in depth exploration of pre-service teacher perceptions. Despite these limitations, our analyses did indicate acceptable reliability for this study and our participant cohort.

# Conclusion

Supporting school students who are living with the outcomes of complex trauma is critical due to the high prevalence of the incidence of complex trauma across the globe, the significant impact of complex trauma on learning and life outcomes, and the societal costs associated with unresolved complex trauma. Trauma-informed teaching and learning in initial teacher education programs will increase pre-service teacher knowledge of the detrimental effects of trauma and enhance their skills to respond effectively to challenging student needs and behaviours resulting from complex trauma. Students affected by adversity, stress, and trauma are likely to be present within most classrooms, and adequately trained educators have the potential to support these students toward the resolution of the impacts of trauma, in a manner that does not impact on their own personal and professional wellbeing. Mandatory pre-service education in trauma-informed education practice and ongoing support and training for early career, and indeed all, school educators has the potential to develop the capacities of teachers in this vital area. It is suggested that this vital area of education should become a consistent component of a broader systemic response to address the significant personal and societal impacts associated with unresolved complex trauma.

# Data availability statement

The datasets presented in this article are not readily available because ethical approval for this study and institutional approval to conduct the research does not extend to the use of original/raw in future studies. Hence data are not available in a public access data repository.

# Ethics statement

The studies involving human participants were reviewed and approved by the Queensland University of Technology Human Research Ethics Committee. The patients/participants provided their written informed consent to participate in this study.

# Author contributions

LL'E performed data analysis, interpreted data for the manuscript, and co-wrote the manuscript. JH conceived and designed the study, collected the data, and co-wrote the manuscript. Both authors contributed to the article and approved the submitted version.

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# Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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# Developing empathy and support for students with the "most challenging behaviors:" Mixed-methods outcomes of professional development in trauma-informed teaching practices

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This mixed-methods study investigated the learning and shifts in teaching practices that educators reported after participating in a trauma-informed schools professional development intervention. Training participants were 61 educators at a suburban U.S. elementary school. The year-long intervention included three after-school trainings, classroom coaching for a subset of teachers, and evaluation of school policies with administrators. Interview ($n$ = 16) and survey ($n$ = 22) data were collected. Quantitative results indicated that educators reported substantial shifts in their thinking and teaching practices. Almost half reported that their thinking shifted *a lot* and 55% reported that their practices shifted *somewhat*. Qualitative themes demonstrated increased understandings of trauma and secondary traumatic stress; increased empathy for students, families, colleagues, and compassion for self; enacting proactive strategies; reappraising interactions with students; increased collaboration with colleagues; and enacting self-care strategies as a result of participating in the professional development intervention. Results have implications for policy and practice, particularly the need for implementation and evaluation of trauma-informed approaches during and after the COVID-19 pandemic.

KEYWORDS

trauma-informed schools, shifts in practices, teacher self-regulation, professional development (PD), teacher empathy

## Introduction

Prior to the COVID-19 pandemic, approximately half of U.S. youth had experienced at least one potentially traumatic event (Bethell et al., 2017). One in five had experienced two or more (Bethell et al., 2017). Students who experience trauma are at risk for reduced academic achievement, poor self-regulation skills, and difficulties creating and maintaining relationships (Perry et al., 1995). They may also experience challenges with attention, memory, and language (Hamoudi et al., 2015; Perfect et al., 2016). These effects are particularly likely if trauma is experienced at a young age or is chronic (Perry et al., 1995). As early as first grade, potentially traumatic events are associated with students' later risk for high school dropout (Alexander et al., 2001).

The COVID-19 pandemic has exacerbated rates of trauma exposure. For example, more than 150,000 U.S. children have lost a parent during the COVID-19 pandemic (Unwin et al., 2022). For children, the death of a parent is associated with elevated risk for traumatic grief, depression, and poor educational outcomes (Bergman et al., 2017). The COVID-19 pandemic has also been associated with elevated household substance use (Czeisler et al., 2020), concerns of increased child abuse and neglect (Substance Abuse and Mental Health Services Administration [SAMHSA], 2020; Swedo et al., 2020), and intensified educational and economic inequality (Fortuna et al., 2020), all of which have the potential to cause trauma for students. Research has found that many children (Patrick et al., 2020; Racine et al., 2021) and educators (Baker et al., 2021; Chan et al., 2021) have experienced increased stress and distress during the pandemic.

Increased incidences of trauma associated with the pandemic make trauma-informed teaching practices ever more important (Halladay Goldman et al., 2020; Sparks, 2020). However, educators report feeling insufficiently prepared to understand the effects of trauma or implement trauma-informed practices in their classrooms (Hobbs et al., 2019; National Council of State Education Associations, 2019; Koslouski and Stark, 2021). Further, their misunderstandings of students' trauma-related behavior (Siegfried et al., 2016; Milner et al., 2019) may lead to punitive responses that compound students' experiences of stress and trauma (Harper and Temkin, 2019; Milner et al., 2019). Although some programmatic approaches to train educators on the effects of trauma in schools have been developed, more research is needed to understand if and how these approaches shift educators' practices (Stratford et al., 2020; Sonsteng-Person and Loomis, 2021). As school communities work to heal, teach, and learn during and following the pandemic, understanding if and how trauma-informed schools professional development (PD) supports educators and students is crucial. Therefore, the present study documents the reported learning and shifts in teaching practices of educators at one elementary school who engaged in a trauma-informed schools PD intervention.

## Current approaches to trauma-informed schools professional development

Over the past 10–15 years, there has been strong and growing interest in creating trauma-informed schools (Overstreet and Chafouleas, 2016), including state legislation supporting the creation of trauma-informed schools in at least eight states (Harper and Temkin, 2019). Drawing from Harris and Fallot's (2001) original conception of trauma-informed care and Substance Abuse and Mental Health Services Administration [SAMHSA] (2014) guidance for a trauma-informed approach, trauma-informed schools "create educational environments that are responsive to the needs of trauma-exposed youth through the implementation of effective practices and system-change strategies" (Overstreet and Chafouleas, 2016, p. 1). Importantly, a trauma-informed approach is not a standalone intervention that treats the trauma symptoms of individuals; instead, it is a framework that guides systems (Maynard et al., 2019). Hanson and Lang (2016) describe that trauma-informed approaches may include (a) PD, (b) practice changes, and (c) organizational changes, and should include at least two of these three areas.

The first published approach to creating a trauma-informed school was developed by Cole and colleagues in 2005; since then, several additional approaches have been developed (Koslouski and Stark, 2021). Though varying in their scope and attention to equity (Gherardi et al., 2020; Koslouski and Stark, 2021), these approaches commonly aim to promote educator understanding of trauma and stress, safe and predictable learning environments, consistent and caring relationships, social and emotional learning, cultural humility, and empowerment and collaboration (Dorado et al., 2016). As described by Chafouleas et al. (2016), PD is an important foundational component to developing trauma-informed schools because it can help to establish knowledge and attitudes needed to become trauma informed. To date, there is no standardized trauma-informed PD for educational settings (Thomas et al., 2019).

Across existing trauma-informed school approaches, PD generally begins with didactic staff trainings. Some approaches also include classroom coaching or work with school administrators to evaluate and revise school policies to be trauma informed. Didactic staff trainings most commonly focus on foundational understandings of trauma and secondary traumatic stress (Chafouleas et al., 2016). Foundational trauma trainings describe the prevalence and impacts of trauma and the relations between trauma, triggers, and student behavior (Wittich et al., 2020). Staff are trained in instructional and

non-instructional strategies that benefit students who have experienced trauma, including building consistent and caring relationships, teaching multi-sensory lessons, and establishing predictable classroom routines (Cole et al., 2005, 2013). Trauma-informed school approaches recognize that all students benefit from these practices; however, they are particularly important for the success of students who have experienced trauma (Craig, 2016). When possible, PD is implemented staff-wide to promote common language and understandings across the range of school personnel who work with students (Chafouleas et al., 2016).

It is recommended that trauma-informed school approaches utilize the multi-tiered systems of support (MTSS; Sugai and Horner, 2009) model, providing varied levels (Tier 1, 2, and 3) of student support depending on demonstrated needs (Chafouleas et al., 2016). Tier 1 interventions focus on school-wide supports (e.g., available to all students as part of general education programming), while Tier 2 and Tier 3 supports become progressively more targeted for students needing additional supports. Implementing multi-tiered systems of trauma-informed support generally occurs over multiple years and is often done using a phased approach (Fixsen et al., 2005; Chafouleas et al., 2016).

## Building educators' capacities to effectively respond to trauma

Trauma-informed schools PD aims to encourage curiosity over judgment about student behavior (Bloom, 1994). This is done by building educators' social and emotional competencies with which to recognize, interpret, and respond to student trauma responses. For example, if an educator understands how a student's self-regulation challenges are influenced by experiences of trauma, they may be better equipped to respond with empathy and support rather than discipline or punishment. This work is supported by the *prosocial classroom model* (Jennings and Greenberg, 2009). Jennings and Greenberg explain that educators' social and emotional competence influences how they build relationships and respond to students' emotions and behaviors. The authors stress that social and emotional competence can and should be taught to educators because it is paramount to educator and student success and wellbeing. Educators with strong social and emotional competence are perceptive to others' emotions, understand potential underlying explanations for these emotions, and recognize how emotions inform behavior (Jennings and Greenberg, 2009). They are self-aware and adept at managing their own emotions. With these skills of attunement to students and themselves, educators are better equipped to support students' academic, social, and emotional growth (Jennings and Greenberg, 2009). Trauma-informed schools PD is one example of PD that aims to strengthen educators' social and emotional competence by training them to understand and

effectively respond to consequences of trauma in the school setting.

## Existing research on trauma-informed professional development interventions

Three recent systematic reviews provide key insight on existing evidence related to the outcomes of trauma-informed PD interventions. First, looking across disciplines, Purtle (2020) conducted a systematic review of evaluations of trauma-informed organizational interventions that included staff trainings. The author identified 23 studies, with the majority being in medical settings or child welfare agencies, and only one in a school setting. The review found that, across studies, there was evidence of improved staff knowledge, attitudes, and behaviors related to trauma-informed practice after participating in trauma-informed training, particularly when the intervention included additional components (e.g., ongoing consultation, policy work). However, the author noted that it was less clear how changes in staff knowledge and attitudes were translated into practices.

Next, Roseby and Gascoigne (2021) conducted a systematic review of school-wide trauma-informed education programs and their impact on students' academic-related outcomes. The authors identified 15 articles describing school-wide trauma-informed education programs in preschool (*n* = 3), elementary (*n* = 5), and high school settings (*n* = 7). Eleven of these programs included staff PD. The authors found encouraging but mixed results related to students' academic-related outcomes. They concluded that programs with multiple components, intensive initial staff training, regular booster sessions for staff, and those that were implemented over longer periods of time demonstrated greater impacts on students' academic-related outcomes.

Finally, perhaps acknowledging the need for multicomponent interventions, Avery et al. (2021) limited their systematic review to school-wide trauma-informed interventions that included at least two of the following three elements: (1) staff PD on the impact of trauma, (2) practice change (e.g., prevention and/or intervention work), and (3) organizational change (e.g., revising policies or procedures to be trauma informed). The authors were only able to identify four school-based studies that met these criteria. The studies each focused on student outcomes (e.g., behavioral change, trauma symptoms), but did also report increased staff knowledge of trauma. The authors identified an urgent need to determine how various elements of a trauma-informed school approach contribute to student and staff outcomes. As resources are often stretched in schools, this would aid schools in selecting the most efficient and effective interventions.

These three reviews identify important next steps in the investigation of trauma-informed schools PD. First, additional research on various outcomes of trauma-informed schools PD is needed. In these recent reviews, only a small number

of studies on trauma-informed schools PD were identified. Roseby and Gascoigne (2021) identified the most studies, but these spanned preschool, elementary, and high school settings. It is likely that unique considerations at each level (e.g., high school teachers having a larger number of students who rotate classes) affect how trauma-informed PD is put into practice, necessitating an accumulation of evidence at each level. In addition, across these reviews, the majority of studies focused on student outcomes. Much more information is needed on educator outcomes, including identifying how educators' understandings of the impacts of trauma influence their teaching practices (Sonsteng-Person and Loomis, 2021). As summarized by Stratford et al. (2020), "There are many school districts around the country that are spending professional development resources on training teachers about trauma with little evidence to demonstrate whether those trainings actually translate into changed behaviors in the classroom and improved outcomes for students" (p. 472). Additional research would assist schools and policy makers in making decisions about the funding and implementation of trauma-informed schools PD approaches.

There is also a need to accumulate evidence about the elements, duration, and intensity of trauma-informed schools PD approaches to determine what is needed to facilitate change in teaching practices (e.g., evidence suggests that one-time trainings are generally ineffective in shifting educators' practices; Desimone and Garet, 2015). As evidenced across the three systematic reviews, there is growing evidence that multifaceted interventions are more successful in producing desired outcomes. To this end, Overstreet and Chafouleas (2016) encourage that research on trauma-informed school approaches be grounded in logic models or theories of change so that comparisons can be made across approaches. As such, the present study aimed to investigate the learning and shifts in teaching practices reported by educators participating in a multifaceted trauma-informed schools PD intervention at one elementary school. The included logic model demonstrates alignment to prior trauma-informed school PD approaches and allows for comparison across approaches.

## The present study

This study seeks to provide evidence of the learning and shifts in practices that educators report after participating in a multifaceted trauma-informed schools PD intervention. The research question of the study was "What learning and shifts in teaching practices do educators report after participating in a year-long Tier 1 trauma-informed schools PD intervention?" The intervention included three after-school PD sessions, classroom coaching for a subset of teachers, and meetings with school administrators to evaluate and revise school policies. Results provide a nuanced picture of the outcomes that can

be expected from educator participation in trauma-informed schools PD. These results may help to inform administrators and policy makers' decisions about whether to invest in trauma-informed schools PD and may allow researchers to investigate a more specific set of potential outcomes that can be expected from educator participation in these approaches.

## Materials and methods

### School context

The intervention was implemented at a Northeast elementary school during the 2019–2020 school year. The school served approximately 400 students in grades pre-kindergarten–4 (approximately 3–11 years old). The majority of students were White (80%); 15% were Latino and the remaining 5% were Asian, Black, or multiracial. One-fourth of students had a first language other than English and 30% qualified for free or reduced-price lunch. Most staff were White (98.5%) and female (95.5%).

### Description of the intervention

A year-long Tier 1 trauma-informed schools PD intervention entitled "Understanding our Students, Understanding Ourselves: Navigating Trauma in Our Schools" included (1) three after-school PD sessions for teachers, paraprofessionals, and administrators (85% of school staff: $n$ = 61), (2) bi-weekly coaching sessions for a subset of teachers ($n$ = 3), and (3) monthly meetings with administrators to evaluate school policies and procedures. The study's author designed the intervention to assess its feasibility and effectiveness. Data collection and coaching sessions began in October 2019. In-person after-school PD sessions were delivered in December 2019, January 2020, and February 2020.

The three 45-minute PD sessions were delivered during contractually paid staff meetings and focused sequentially on: (1) Secondary Traumatic Stress and Self-Care, (2) Foundations of Trauma, and (3) Educational Impacts of the Opioid Epidemic (see Table 1 for further descriptions of content). PD sessions on secondary traumatic stress and foundations of trauma were included for their alignment to other trauma-informed schools PD approaches. Training on the educational impacts of the opioid epidemic was included due to its relevance to the school community and educators' requests for training on this topic. The after-school PD and coaching sessions were led by the study's author.

Bi-weekly classroom coaching sessions with three classroom teachers (who also attended the after-school PD sessions) consisted of 45 minute of shared time in the classroom followed by a 30-minute debriefing session. Debriefing sessions were

TABLE 1 Logic model.

| Inputs | Activities | Anticipated outcomes | Long-term impact |
|---|---|---|---|
| Secondary Traumatic Stress and Self-Care PD Session | • Psychoeducation on secondary traumatic stress and discussion of self-care strategies<br>• Reflection and goal setting activity to assess self-care habits. | • Decreased symptoms of secondary traumatic stress<br>• Increased understandings of secondary traumatic stress<br>• Staff engage in increased self-care | • Improved staff wellbeing and retention<br>• Staff are more effective educators |
| Foundations of Trauma PD Session | • Psychoeducation on neurobiological impacts of chronic trauma and classroom consequences of trauma<br>• Discussion of instructional and non-instructional strategies to support students exposed to trauma<br>• Reflection and goal setting activity to assess use of specific trauma-informed practices | • Greater understandings of the impact of trauma on students<br>• Reported use of trauma-informed practices<br>• Increased empathy for students | • Increased support for all students<br>• Less disruptive behavior and punitive discipline practices<br>• Increased achievement of students who experienced trauma |
| Impact of Opioids PD Session | • Psychoeducation on causes of addiction, *in utero* opioid exposure, and educational implications<br>• Strategies for establishing, maintaining, and restoring relationships (EMR; Cook et al., 2018; Duong et al., 2019)<br>• Reflection and goal setting using the EMR model | • Increased understanding of the impact of *in utero* and household substance exposure<br>• Increased empathy for parents and caregivers<br>• Work to improve relationships with students, families, and colleagues | • Increased support and achievement of students exposed to substances<br>• Improved relationships with students, families, and colleagues |
| Classroom coaching for a subset of teachers | • Modeling, observation, and feedback on trauma-informed teaching practices<br>• Co-teaching of social emotional lessons<br>• Collaboration to implement strategies for specific students and/or the class<br>• Non-coached educators see colleagues model the ongoing nature of learning how to implement trauma-informed practices | • Applied practice implementing trauma-informed practices<br>• Increased educator confidence and agency brainstorming and implementing practices<br>• Coached teachers share their learning about trauma with their colleagues<br>• Non-coached educators continue learning outside of the formal PD from their coached colleagues | • Development of internal school leaders in trauma-informed practices<br>• Continued support for non-coached colleagues after the intervention concludes |
| Monthly meetings with administrators | • Assessment and discussion of existing school policies and their attention to trauma-informed practices<br>• Discussion of, and reflection on, new or modified trauma-informed policies | • Administrators' increased attention to, and understanding of, trauma-informed school policies<br>• Priorities identified for new or modified trauma-informed policies<br>• Revision and/or implementation of 2–3 trauma-informed polices | • Improved policies related to student, family, and educator support |

used to plan or reflect on lessons, brainstorm supports for students, and reinforce after-school PD content. All classroom teachers (*n* = 22) were invited to express their interest in classroom coaching. Based on the time and resources available for classroom coaching, three of the 10 interested classroom teachers were randomly selected.

Finally, to promote sustainability over time and through changes in staff and leadership, monthly meetings with school administrators were used to assess school policies for their alignment with key principles of trauma-informed schools. Safe Schools New Orleans (2022) Policy Checklist was

used. This checklist includes six sections: Cultural Humility; Safety; Trustworthiness and Transparency; Collaboration and Mutuality; Empowerment, Voice and Choice; and Peer Support. It has 3–12 questions per section that can be used to evaluate the extent to which school policies align with each principle. Each month, the administrators and author reviewed one of the six sections and engaged in reflection, brainstorming, and goal setting related to strengths and opportunities in that area. After completing the six sections, the administrators elected to focus on policies and procedures related to Cultural Humility, Collaboration and Mutuality, and Peer Support. Additional

details are described in Koslouski and Porche (2020). A logic model of the PD intervention is shown in **Table 1**.

In mid-March 2020, five months after the start of the intervention and after all of the after-school PD sessions were complete, the school temporarily closed due to the start of the COVID-19 pandemic. Coaching sessions were suspended; each teacher received 11–12 of 20 planned coaching sessions. Meetings with administrators continued remotely.

## Institutional review board approval, consent process, and confidentiality

This study was approved by the Boston University Institutional review board (IRB). The study purpose and procedure were reviewed with participants prior to data collection. Staff could attend the after-school PD sessions without consenting to study participation. Data from consented participants were de-identified and stored securely.

## Role as researcher

In this study, the author was both a researcher and PD facilitator. In an effort to reduce social desirability bias (Nederhof, 1985; Bergen and Labonté, 2020), in both the survey and interview protocol, the author explained that the research aimed to improve the intervention and that honest feedback was most helpful. The author also collected survey data, which did not ask for any identifying information, so that participants were able to provide anonymous feedback. This has been identified as a valuable way to reduce social desirability bias (Nederhof, 1985).

## Data collection and participants

Data were collected using a convergent mixed methods design (Creswell and Plano Clark, 2017). The interviews and survey were conducted concurrently. Qualitative and quantitative analyses were completed separately and then merged to inform the conclusions of the study. Findings from both qualitative and quantitative data were organized in a joint display (presented below in **Table 4**; Guetterman et al., 2015) to examine the alignment or divergence of results. Results were then integrated for the presentation of results to illustrate the salience of themes across data sources and to provide rich qualitative description along with quantitative results.

### Interviews

Interviews were conducted with a subset of PD participants ($n = 16$) between May and November 2020. PD participants were emailed a recruitment flyer inviting them to participate in

a 20–30-min interview. The semi-structured interview protocol included 10 questions about participants' experiences with the PD intervention. The present study focuses on 4 questions in which participants were asked if there had been any changes in their teaching practices, interactions with families, or understandings of trauma and secondary traumatic stress that they attributed to the PD sessions. If participants responded affirmatively, they were asked to provide specific examples. Participants were given a $50 gift card in appreciation for their time. All interviews were audio recorded and transcribed verbatim. Interview participants are described in **Table 2**.

### Survey

In May 2020, the 61 PD participants were invited to participate in a brief survey about any learning or shifts in teaching practices that they attributed to the PD intervention. The survey was distributed by email, took 10 min to complete, and included three quantitative and three open-ended questions. Participants were asked to report the extent

TABLE 2 Interview participants.

| Participant pseudonym | Teaching role | Career stage[a] |
|---|---|---|
| **Administrators** | | |
| Mrs. Adams | Administrator | Veteran |
| Ms. Anderson | Administrator | Veteran |
| **After-school training and classroom coaching** | | |
| Ms. Carter | Classroom teacher | Mid-career |
| Mrs. Clark | Classroom teacher | Veteran |
| Mrs. Cooper | Classroom teacher | Veteran |
| **After-school training only** | | |
| Mrs. Taylor | School mental health professional | Veteran |
| Ms. Testa | Classroom teacher | Early career |
| Mrs. Thibault | Classroom teacher | Veteran |
| Mrs. Thomas | Classroom teacher | Veteran |
| Ms. Thornton | Classroom teacher | Veteran |
| Ms. Tierney | Specialized service provider | Early career |
| Mrs. Tobin | Specialized service provider | Mid-career |
| Ms. Toland | Specialized service provider | Mid-career |
| Ms. Travis | Specialized service provider | Veteran |
| Ms. Tucker | School mental health professional | Mid-career |
| Ms. Turner | School mental health professional | Veteran |

To assist the reader, administrators' pseudonyms begin with the letter A. The pseudonyms of teachers participating in the coaching intervention begin with the letter C. The pseudonyms of (after-school) training participants begin with the letter T. Aside from the administrators, who were interviewed together, all participants were interviewed individually. [a]Years of experience: Early career educators = 0–4 years; mid-career educators = 5–14 years; veteran educators = 15 + years.

to which the PD sessions influenced their (1) thinking, (2) teaching practices, and (3) interactions with parents/caregivers. Response options were *not at all, a little, somewhat,* and *a lot.* The three open-ended questions asked participants to provide an example(s) of a time when they (1) thought differently about a situation, a student, or themselves based on the PD; (2) changed their teaching practices based on the PD; and (3) interacted differently with parents, caregivers, or families due to the PD. Participants were asked to provide their teaching role (*classroom teacher; specialized service provider [e.g., special educator, reading specialist]; related arts [e.g., music]; paraprofessional; school mental health professional; other [e.g., nurse]*); and years of experience (*0–4 years, 5–9 years, 10–14 years, 15 + years*). A $15 donation was made to the school's local food pantry for each person who completed the survey. The survey response rate was 36.1% (*n* = 22). Demographics of the PD, interview, and survey participants are shown in **Table 3**.

## Analysis

Descriptive statistics were used to analyze quantitative survey data with SPSS Version 26.0 (IBM Corporation, 2019). Qualitative coding was completed using NVivo 12 software (QSR International, 2018). Reflexive thematic analysis (Braun and Clarke, 2006, Braun and Clarke, 2021) was used to explore the learning and shifts in teaching practices that educators attributed to PD intervention. The qualitative interview and open-ended survey data were inductively coded line by line. Then, the codes were reviewed for redundancy and accurate naming and provisional thematic maps were created (Braun and Clarke, 2006). Thematic maps are used to explore relationships between codes. They are created and refined until a provisional

thematic map acceptably represents the data and answers the research question. The author engaged in an iterative process of searching for themes by creating provisional maps and reviewing the data (Braun and Clarke, 2006). In total, nine provisional maps were created to explore the learning and shifts in teaching practices that educators reported as a result of the PD intervention. Once a provisional map that satisfactorily represented the coded data was created, all of the raw data was reread to be sure the map represented the data well and no major ideas had been omitted (Braun and Clarke, 2006). Finally, a code book was provided to a second coder to analyze 20% of the data. The two coders had 95% agreement in their coding and met to resolve any discrepancies.

## Legitimizing the study results

Multiple measures were taken to legitimize the study results (Onwuegbuzie and Johnson, 2006). First, a diverse subset of the PD participants (*n* = 16; 26.2% of PD participants) who represented a variety of teaching roles and grade levels were interviewed. By collecting both interview and survey data, the codes and themes were able to be triangulated across participants, roles, and data sources (Creswell and Plano Clark, 2017). In the results, quotes from a variety of participants—demonstrated through varied teaching roles and years of experience—were included to illustrate the salience of themes across participants. Participants were asked to share stories and examples so that the study's author could gain a deeper understanding of the shifts that they experienced rather than a simple endorsement of those shifts. Disconfirming evidence (i.e., findings contrary to other data; Creswell and Miller, 2000) was sought out and reported to provide a complete picture of the learning (or lack thereof) that educators reported. An audit trail of memos was maintained throughout the qualitative coding and analysis phases to document decisions, descriptions and shortcomings of each new thematic map, and rationale for each reorganization of the data. Lastly, a second coder independently analyzed 20% of the data. This allowed the author to verify the interpretations of the data and increase the trustworthiness of the findings.

## Results

This study sought to identify the learning and shifts in teaching practices that educators reported at the end of Year 1 of a trauma-informed schools PD intervention. Six themes regarding the influence of the trauma-informed schools PD intervention emerged: educators reported increased understandings of the impact of trauma and secondary traumatic stress; increased empathy toward students, families, and colleagues, and compassion for self; enacting proactive

TABLE 3 Demographics of PD, interview, and survey participants.

|  | PD participants (*n* = 61) | Interview participants (*n* = 16) | Survey participants (*n* = 22) |
|---|---|---|---|
| **Teaching role** | | | |
| Classroom teacher | 22 (36.1%) | 7 (43.8%) | 8 (36.4%) |
| Specialized service provider | 15 (24.6%) | 4 (25.0%) | 6 (27.3%) |
| Related arts | 5 (8.2%) | 0 (0.0%) | 0 (0.0%) |
| Mental health professional | 3 (4.9%) | 3 (18.8%) | 2 (9.1%) |
| Paraprofessional | 13 (21.3%) | 0 (0.0%) | 5 (22.7%) |
| Other | 3 (4.9%) | 3 (18.8%) | 1 (4.5%) |
| **Teaching experience** | | | |
| 0–4 years | 14 (22.9%) | 2 (12.5%) | 2 (9.1%) |
| 5–9 years | 13 (21.3%) | 1 (6.3%) | 3 (13.6%) |
| 10–14 years | 13 (21.3%) | 3 (18.8%) | 6 (27.3%) |
| 15+ years | 21 (34.4%) | 10 (62.5%) | 11 (50.0%) |

TABLE 4 Illustrative qualitative quotes and quantitative data in support of identified themes.

| Themes | Interview data (*n* = 16) | Open-ended survey data (*n* = 22) | Quantitative survey data (*n* = 22) |
|---|---|---|---|
| Greater understanding of the impact of trauma and secondary traumatic stress | "I definitely got a better understanding and was like "oh this is why they're probably not able to do this. It's not because they don't want to or because they can't. It's because there's this other piece involved that you don't see on the surface." <br><br>-Ms. Carter | "The information from the trainings also helped me understand the importance of my own self-care when helping such a vulnerable population." <br><br>-Mid-career classroom teacher | To what extent have there been changes in your thinking that you attribute to the PD sessions? <br><br>A lot — 46% <br> Somewhat — 32% <br> A little — 23% <br> Not at all — 0% |
| Increased empathy for students, families, and colleagues, and compassion for self | "There's perhaps more empathy on my part too, in in terms of saying, "okay, yes, this is the expectation. However, how can we support you as a parent so that we are still making gains, emotionally and academically, but that you can also feel successful in supporting your child at home? And how can we do that in school as well, so then there's carryover from the home?"" <br><br>-Ms. Tucker | "Instead of jumping to the conclusion that a child is being defiant, I try to think about the circumstances that are leading the child to display the behavior. I have tried to be more compassionate and understanding and also think about what else may be going on." <br><br>-Veteran classroom teacher | To what extent have there been changes in the ways that you interact with parents, caregivers, or families that you attribute to the PD sessions? <br><br>A lot — 19% <br> Somewhat — 29% <br> A little — 24% <br> Not at all — 29% |
| Enacting proactive strategies | "[This year, during the pandemic], I do try to talk to them more. And when I do check in with them, those couple of extra minutes are just an opportunity to try to talk to them about different things—you know, one's got a loose tooth, or one's doing something special or going somewhere, I drew a picture. So I get to just chit chat with them while we're waiting before we get started." <br><br>-Mrs. Thibault | "With the help of the trainings, I was able to have more tools to help a child I was working with in small group. I was more aware of why his overreactions to a benign situation were occurring. I set clear expectations, I gave him choices, I stayed calm, and we were able to move on with the lesson. As a small group we all felt more relaxed and accomplished our goal." <br><br>-Veteran paraprofessional | To what extent have there been changes in your teaching practices (or work with students) that you attribute to the PD sessions?[a] <br><br>A lot — 18% <br> Somewhat — 55% <br> A little — 23% <br> Not at all — 0% |
| Reappraising interactions with students | "Stepping back and realizing that some of the things that the kids are coming to school with or that they're dealing with, I shouldn't be taking personally. I have to step back and not take it personally or try to not. I don't want to say get aggravated but I guess that's the best way to. I have to step back and try to refocus them in a different way." <br><br>-Mrs. Clark | "I sat and asked a student about his change in tiredness. It revealed a lot going on at home." <br><br>-Mid-career paraprofessional | |
| Increased collaboration with colleagues | "I also think that the common language that then spread out throughout the rest of the school, like even when they asked me to make the same [SEL] posters. I thought that was a huge sign of, like, "okay, this is good. This is them internalizing [the content], this is them talking to each other without us [administrators]. This is them being proactive and asking for things that they think they might need and sort of using the skills in the classroom for. . .in a very real sort of way." <br><br>-Ms. Anderson | "We talked a lot about the students the presentations made us think of and thought about ways to help them. We also talked about the self-care aspect as teachers." <br><br>-Mid-career classroom teacher | |

*(Continued)*

TABLE 4 (Continued)

| Themes | Interview data (*n* = 16) | Open-ended survey data (*n* = 22) | Quantitative survey data (*n* = 22) |
|---|---|---|---|
| Enacting self-care strategies | "Usually, I feel like I'm pretty good at this is school, this is home, that sort of stuff. But you had so many things in that [self-care reflection activity] that I had never even thought about. So, I think just really making sure that I like do certain things for myself, and with my own kids."<br><br>-Ms. Toland | "The after-school trainings benefited me by how to best take care of myself. I did not always think of myself. You helped me realize that I cannot solve everything for everyone. But to continue to try my best and help educate others that work with certain children. Thank you for that! Self-care is so important in this work!"<br><br>-Veteran classroom teacher | |

These sample quotes were chosen from the larger body of data as illustrations of the themes and subthemes. [a]The quantitative survey results related to shifts in teaching practices align with the themes Enacting Proactive Strategies, Reappraising Interactions with Students, Increased Collaboration with Colleagues, and Enacting Self-Care Strategies.

strategies; reappraising interactions with students; increased collaboration with colleagues; and enacting self-care strategies. Table 4 demonstrates the salience of these themes across qualitative and quantitative data sources.

Across these findings, educators described changes that occurred before the COVID-19 pandemic and while remote or hybrid teaching during the pandemic. As the pandemic began within weeks of the third after-school PD session and was ongoing during post-intervention data collection, these findings are included. Although unexpected, the pandemic quickly became the teaching context in which educators had the opportunity to apply (or not apply) their learning.

In addition, across these themes, there were indications that the learning facilitated through the after-school PD sessions would not have been the same if classroom coaching for a subset of teachers had not occurred. The coaching sessions reinforced and extended learning for the three teachers involved, but also positioned them to be resources for their colleagues. The three teachers described processing the after-school PD content with their colleagues, sharing their coaching work with colleagues, and being used by their colleagues as resources in trauma-informed teaching practices. Mrs. Cooper described, "With the people that I work directly with, [a special educator], [a paraprofessional], and [another classroom teacher], we definitely had conversations based off of what we had learned from you and the PD. And then, the four of us would also talk about specific kids and the suggestions you had. It made it part of our discussions, our vocabulary, and trying out new things." Mrs. Thomas, who was not in the coaching intervention, shared that Mrs. Cooper's involvement helped her. She reflected, "Because I was able to get a lot of what you had taught her and she would share it with me. [. . .] So, I've definitely been channeling some of that this year." Ms. Carter described colleagues consulting with her based on her involvement in the coaching intervention. She shared, "My [colleagues] have come to me and asked for different strategies." For example, one colleague had a student who had experienced significant household substance use. She asked Ms. Carter for suggestions and advice of how to support the student. In sum, these preliminary data suggest that the ongoing coaching sessions for

a subset of teachers may have fostered internal resources that supported the outcomes described in the themes below.

## Greater understanding of the impact of trauma and secondary traumatic stress

Participants conveyed that the PD intervention led to increased understandings of the impact of trauma on students and families. They expressed that their definitions of potentially traumatic events had broadened and that they had a greater understanding of how these experiences affected students and families. For example, Mrs. Clark expressed that she now realized that trauma could occur from many more experiences than abuse or neglect. Mrs. Cooper described that understanding the impact of trauma on students had "put things into a new light" for her. She described working with one student who has a significant history of trauma and a chronic medical condition. She explained, "It made me realize that all this trauma bubbled up [. . .] you've got to get through that, especially with the [medical condition] and all that, getting through that first before he's going to be ready to learn."

Anonymous survey respondents[1] echoed these sentiments. For example, a mid-career paraprofessional wrote, "I think I am just more aware of the impact that trauma has on the students and try to keep that in mind when interacting with them." A mid-career classroom teacher shared, "I have a student who remembers things one day and then forgets the next. I now understand [that] because of his past traumas, this is how his brain works and the good news is it can be repaired or rewired with consistent practice."

Educators also conveyed increased understandings of secondary traumatic stress and the importance of self-care.

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1 The survey and interview samples likely overlapped. However, due to the anonymous nature of the survey, data could not be matched. Therefore, survey respondents were not given pseudonyms. If they had been given unique pseudonyms, study participants may have had two pseudonyms (one for survey data, one for interview data). Instead, survey respondents are identified by their teaching role and years of experience. Interview participants' teaching roles and years of experience can be found in Table 2.

For example, Mrs. Clark described her evolving understanding of secondary traumatic stress and self-care. She shared, "Self-care doesn't mean you're going and getting a manicure and a pedicure. Self-care can mean you're not looking at your email after 3:30, [you] leave the computer in another room, [you] don't even look at it." Ms. Tierney spoke about always taking care of others before herself and developing a greater understanding of the toll this took on her work and wellbeing. She shared that at the time of the Secondary Traumatic Stress and Self-Care Training, she was supporting a friend through a serious medical procedure. She recalled, "At the time, I also had students that demanded a lot of my attention, as they were undergoing their own trauma, and I felt pulled to care for everyone but myself. The reminders to breathe, take time, and ask for help were very helpful for me." Similarly, on the anonymous survey, a mid-career classroom teacher shared, "The information from the trainings also helped me understand the importance of my own self-care when helping such a vulnerable population and gave me strategies to do so." Participants conveyed that they had not previously understood the toll this work could take on them.

## Increased empathy for students, families, and colleagues, and compassion for self

Educators reported feeling increased empathy for students and families as a result of the PD intervention. For example, Ms. Carter provided an example in which she described the compounding experiences of trauma that one of her students was experiencing. She explained,

> Not only is he learning a new language, but now I have the consideration he also moved, left his family [in another country to live with an aunt he had never met]. We don't know the home life. He doesn't talk to [his parents]. He doesn't see them. If he's out of control, I'm like, "Okay, well maybe his school wasn't like this before, maybe this is a whole different lifestyle." And having that ability to kind of put myself in his shoes.

On the anonymous survey, a veteran specialized service provider wrote that the PD sessions led to her "finding love for kids with the most challenging behaviors—especially one boy who will do anything to derail the class." Quantitative survey data supported these sentiments. The intervention encouraged empathetic interactions and almost half (45.5%) of respondents reported that the PD sessions impacted their thinking *a lot*, 31.8% *somewhat*, 22.7% *a little*, and 0.0% *not at all*.

Several anonymous survey participants also wrote about their increased empathy for caregivers as a result of the PD. Participants reported empathizing with caregiver stress and trauma in both their thinking and in their communication

with caregivers, especially during the COVID-19 pandemic. A veteran classroom teacher reported, "being aware that parents can be dealing with their own trauma and they are doing the best they can." A mid-career classroom teacher reported ending every communication to caregivers with "Do what you can and what you can do is your best" in hopes that "parents don't feel the pressure." Quantitative survey data demonstrated that 19.0% of respondents reported that the PD sessions impacted their interactions with parents, caregivers, or families *a lot*, 28.6% *somewhat*, 23.8% *a little*, and 28.6% *not at all*. Three respondents explained their *not at all* responses. Two reported that as paraprofessionals, they did not interact with parents. One reported that empathetic family outreach had been part of their practice prior to the intervention.

A few participants spoke about feeling increased empathy for their colleagues. Mrs. Clark spoke about conversations she had with her grade level team about setting boundaries while remote teaching. She explained, "There were definitely nights when the [group] of us would be texting about plans for the next day [. . .] and there were times people on my team just checked out because we had to." Mrs. Clark said that her teammates offered one another compassion and understanding in those moments. Similarly, on the anonymous survey, a mid-career specialized service provider wrote, "I have found myself more patient and understanding with students and families as well as colleagues." A veteran specialized service provider described that the PD sessions helped them to engage in "supporting colleagues who are dealing with traumatized students."

Finally, participants expressed ways in which the PD sessions increased their feelings of compassion for themselves. For example, Mrs. Cooper reflected on a training activity in which educators identified student behaviors that triggered negative emotional responses in themselves while they were teaching. She shared, "I've been way more aware of that. So, just saying [to myself], 'Oh, well, this is what triggers you.' Knowing it kind of normalizes it. Like, 'okay, that's fine. You have to let that go.'" On the anonymous survey, an early career specialized service provider summarized, "It comes back to recognizing that teachers have an important role in the community, but we cannot do it all alone and we cannot pour from an empty cup. Be empathetic to our families, but to ourselves too." Across the data sources, participants conveyed that their increased understandings of trauma and secondary traumatic stress increased their empathy for students, families, and colleagues, as well as their compassion for self.

## Enacting proactive strategies

The next four themes focus on shifts in teaching practices. On the quantitative survey, approximately 1 in 5 (18.2%) survey respondents reported that the PD sessions impacted their teaching practices *a lot*, 54.5% *somewhat*, 27.3% *a little*, and 0.0%

*not at all*. This aligned with qualitative data, in which educators provided rich descriptions of shifts in their practices.

Educators reported enacting proactive strategies as a result of participating in the PD intervention. These included intentional grouping, offering choices, strengthening relationships, and embedding social and emotional learning into the day. For example, Ms. Tucker shared that the PD sessions led her to be more intentional in her interactions with students. She explained, "Really making sure that the student feels listened to and not just because you're going through the wheels. Like, 'I see that you're upset, are you ready for me to talk to you? If not, that's okay, I'll wait, let me know.'" Relatedly, on the anonymous survey, a veteran specialized service provider shared that they had been "Trying to dig deeper into understanding why a student is withdrawn, take pressure off, rather than put them on the spot. Trying to find an interest or spark through one-on-one conversation. Giving students choice or outlets." Educators reported choosing strategies presented in the PD sessions that they felt were most aligned with their students' needs. As suggested in the PD, they also seemed to start with a small number of strategies and to incorporate additional strategies over time.

## Reappraising interactions with students

Educators reported reappraising interactions with students and increasing their focus on student support. Some educators reported that this was the result of having a greater understanding of student traumatic stress and therefore feeling less offended, inconvenienced, or reactive to student behaviors. For example, Mrs. Thibault described that as a result of participating in the PD,

> I really try to think about what the what the root of their behavior could be. So not just assuming that they're behaving poorly because they want to behave poorly. But where is this coming from? What is causing it? And how can I help them? What can I do for them to make things a little bit smoother or a little bit easier for them?

The school's administrators observed this in staff as well. For example, Ms. Anderson explained, "[The intervention] helped lessen the amount of times [staff] ended up coming to me for things that they were able to handle and/or look at differently and think to themselves, 'What could I do differently?' or 'How can I look at this kid differently?'" She continued, "[They realized] this is not an emergency situation." The data suggest that educators slowed down in their reactions to students and thought more flexibly and empathetically about student behaviors.

## Increased collaboration with colleagues

Across interview and survey data, educators reported increased collaboration with colleagues to support students and families with experiences of trauma. For example, Ms. Tierney described that the PD sessions gave staff common language to speak about trauma and gave her language to challenge hurtful remarks that she heard about students. She explained,

> Just helping shift the conversation about the way that we talk about these kids. Because I would find it very frustrating when I would be in meetings with other teachers and they would say things like, "Oh, he's bringing the other good kids down," and I just have to say "*They're all good kids*. Even when they're trying to assault you with scissors, it means something else." So, I think helping shift that conversation gave me the language to change the way we talked about those kids.

On the anonymous survey, a veteran classroom teacher described, "I made sure that other staff members who had contact with these children throughout the day also understood why they acted like they did sometimes. I provided different strategies that they could try to use to be successful in their interactions." A veteran specialized service provider reported seeking out this type of information. They described, "[I] have spoken to colleagues to check deeper into student home life before students are labeled as behavioral or difficult." This proactive work to understand and collaborate about the multifaceted elements of students' experiences likely generates greater empathy, more student-centered support, and continued attention to students' learning.

## Enacting self-care strategies

Educators described enacting self-care strategies as a result of participating in the PD intervention. For example, Mrs. Travis described that the Secondary Traumatic Stress and Self-Care Training had a strong influence on her. She explained, "It made me realize how many things I don't do for myself to take better care of myself. And I have let a lot of things go. And that's something I'm still working on." On the anonymous survey, an early career specialized service provider described, "I took more time for me and was more patient with myself. I asked for help when I needed it." A veteran specialized service provider described, "Understanding that it is normal to feel stress and taking needed breaks." Participants stressed

that this became increasingly critical during the COVID-19 pandemic.

## Disconfirming evidence

Two interview participants shared sentiments that reflected that the PD intervention did not lead to sustained learning or shifts in teaching practices for all PD participants. This may have been due to the unforeseen but challenging context (i.e., the COVID-19 pandemic and remote teaching) that followed the PD intervention and in which educators would have implemented their learning. First, Ms. Testa said, "To be honest, I can't really remember everything we've talked about. I feel that it's kind of gone out of my brain. I feel like I'm just so focused on, to be honest, just hour by hour, day by day [during the COVID-19 pandemic]." Mrs. Taylor explained that educators were experiencing new and increased responsibilities while hybrid teaching during the COVID-19 pandemic. She felt that her colleagues were struggling to balance academic instruction and social and emotional supports for students in the limited in-person time they had. Mrs. Taylor acknowledged the need for students to be regulated to be available for learning, but expressed that educators felt conflicted between meeting academic mandates and making time for social and emotional learning and supports.

## Discussion

This study sought to identify the learning and shifts in teaching practices that educators reported at the end of Year 1 of a trauma-informed schools PD intervention. Educators reported greater understandings of the impact of trauma and secondary traumatic stress; increased empathy toward students, families, and colleagues, and compassion for self; enacting proactive strategies; reappraising interactions with students; increased collaboration with colleagues; and enacting self-care strategies. These findings extend previous research by providing evidence of staff outcomes, including shifts in teaching practices, that may be expected from educator participation in a Tier 1 trauma-informed schools PD intervention.

In addition, educators' descriptions of these shifts yielded insight about their sequencing. Educators described that recognizing student behavior as trauma responses (increased understandings of trauma) led them to feel greater empathy toward students, and as a result, to enact strategies to support students (e.g., shifts in practices). This suggests that increased empathy may be an important mechanism through which educator implementation of trauma-informed practices is facilitated. This aligns with the prosocial classroom model (Jennings and Greenberg, 2009), which suggests that educators'

abilities to understand and recognize underlying causes of emotions and behavior may support them in responding with greater empathy. Previous research also suggests that invoking an empathetic mindset facilitates behavioral change in teachers, including less punitive discipline practices (Okonofua et al., 2016). Okonofua et al. (2016) found that a brief online intervention encouraged teachers to understand students' negative feelings and experiences, maintain positive relationships amidst student misbehavior, and build and sustain trusting relationships to improve student behavior. The intervention also reduced suspension rates in half. This reinforces the idea that empathy may be an important mechanism through which desired outcomes of trauma-informed PD (e.g., maintaining positive relationships amidst student misbehavior, reducing exclusionary disciple) are facilitated. Empathy interventions have also been shown to be efficacious in improving client relationships and support amongst therapists, doctors, and nurses (Teding van Berkhout and Malouff, 2016). Thus, further exploration of empathy as a potential mechanism of change in the implementation of trauma-informed practices may offer important and novel insight for the development of trauma-informed schools.

An additional sign of increased social and emotional competence, educators in the present study reported reappraising interactions with students (Jennings and Greenberg, 2009). This suggests increased self-regulation on the part of educators: rather than responding with potential feelings of frustration, irritation, or anger, participants reported considering the broader circumstances that could be impacting students and providing supports. Others have highlighted the importance of adult self-regulation for successful implementation of trauma-informed practices. As succinctly described by Perry and Winfrey (2021), "A dysregulated adult cannot regulate a dysregulated child" (p. 284). Therefore, educators' abilities to self-regulate when confronted with students' intense emotions and challenging behaviors are likely critical to their effectiveness in responding with compassionate and well-reasoned supports. Educators' self-regulation skills should be explored as an additional potential mechanism of successful implementation of trauma-informed practices.

In this study, educators also reported enacting proactive strategies, such as intentional grouping, offering choices, and increasing their attention to relationship building. These align with instructional and non-instructional strategies shared in this intervention and other trauma-informed schools PD (e.g., Cole et al., 2013; Perry and Graner, 2018; McIntyre et al., 2019). These strategies may reduce student challenges and increase engagement, creating more conductive learning experiences and environments for all students. In addition, educators reported increased collaboration with colleagues arising from their stronger understandings of trauma. They

reported reaching out to colleagues to brainstorm supports for students; having conversations that considered student experiences, strengths, and challenges beyond academics; and the value of having shared language to engage in these conversations. This increased collaboration, especially about students with complex needs, may improve student support and outcomes (Ronfeldt et al., 2015; McLeskey et al., 2017).

Educators reported enacting self-care strategies both prior to and during the COVID-19 pandemic. Educators recognized that their effectiveness in the classroom, especially in challenging situations, depended on their own wellbeing (Jennings and Greenberg, 2009). Of note, although self-care may have been increasingly important during the COVID-19 pandemic, educators may have also felt more restricted in their abilities to engage in self-care due to increased family responsibilities and safety concerns. In addition, teaching responsibilities shifted, with new job demands (e.g., implementing safety protocols) and changes in job resources (e.g., reduced opportunities for in-person collaboration; Green and Bettini, 2020). As such, educators may have perceived their workloads as less manageable, an identified risk factor for emotional exhaustion (Bettini et al., 2017). Careful attention to educator wellbeing is needed as the impacts of the COVID-19 pandemic continue to unfold, educator job demands and resources continue to shift, and a considerable number of educators report that they may leave the profession earlier than they had previously planned (e.g., Zamarro et al., 2022). Training in secondary traumatic stress and self-care is likely ever more important during this time and in responding to consequences for years to come.

This study also contributes an example of a multifaceted trauma-informed schools PD intervention. As evidence on trauma-informed schools PD accumulates, future research should investigate the necessary components, duration, and intensity of PD needed to facilitate changes in teaching practices and student outcomes. In the current study, there is some evidence that classroom coaching with a subset of teachers, at least in part, may have facilitated or reinforced learning of the broader staff. The coached teachers reported collaborating with their colleagues related to the PD content and being sought out as resources on trauma. Sun et al. (2013) refer to this as *spillover*, whereby additional informal learning happens as the result of some educators participating in formal PD opportunities (in this case, coaching). A cautious interpretation of evidence from the present study suggests that when resources are limited, classroom coaching for a subset of staff may still generate favorable outcomes for the broader staff. Future research should investigate how the dispositions and roles (both formal and informal) of these staff, as well as school culture (e.g., openness to collaboration), influence the ability for coached staff to become internal resources on trauma and if and how this promotes ongoing implementation and sustainability of trauma-informed teaching practices.

## Limitations

It is important to consider the limitations of this study. First, these results are from one elementary school; although promising, future research is needed to determine if similar outcomes can be achieved in additional schools. Next, this study relies on self-report data rather than structured observations. It is possible that educators' reports of their actions do not match actual implementation. However, educators were asked to provide examples to gain a more detailed understanding of their shifts in teaching practices; these examples aligned with insights shared by school administrators. The study is limited by a low survey response rate (36.1%). The survey was administered during the first few months of the COVID-19 pandemic and competing demands likely impacted the response rate. In recognition of these competing demands, this study also recruited a convenience sample of interviewees. This likely affected the range of experiences with the PD that was captured. It is possible that interview and survey participants were those most invested in the intervention. Nonetheless, more than one-fourth of PD participants were interviewed, allowing a variety of participant perspectives to be captured.

As the study's author implemented the PD and conducted the interviews, social desirability bias may have been high (Nederhof, 1985). However, an authentic understanding of educators' learning and implementation of practices was sought by soliciting stories and gathering data through an anonymous survey. Finally, the COVID-19 pandemic had a significant impact on this study. Although all three PD sessions were delivered prior to a shift to remote teaching, it is unclear how results may have differed if educators had continued with in-person instruction for the remainder of the school year or without the influence of a pandemic. Many educators reported that the COVID-19 pandemic surfaced new opportunities for application of the PD content. However, a smaller number reported that the stress of the pandemic made the retrieval and application of new learning difficult.

## Implications for policy and future research

The COVID-19 pandemic has been associated with myriad types of adversity and trauma for children (e.g., Unwin et al., 2022). Thus, some have called for increased adoption of trauma-informed schools PD approaches (e.g., Sparks, 2020). However, educator stress is also heightened (e.g., Baker et al., 2021), making the adoption of new initiatives challenging. Thoughtful work is needed to effectively support school communities as they navigate the evolving landscape of the COVID-19 pandemic.

The present study, and increased attention to trauma-informed schools PD approaches during the COVID-19 pandemic, raise another important issue. Despite educators

feeling unprepared to meet the needs of their students who have experienced trauma (e.g., National Council of State Education Associations, 2019; Koslouski and Stark, 2021), preservice training on the impacts of trauma on students is not yet widespread (Pierrottet, 2022). For example, only four U.S. states require preservice training on trauma (for an example, see Indiana General Assembly, 2020; Pierrottet, 2022). Given the high prevalence of potentially traumatic events in children's lives (Bethell et al., 2017), the negative consequences of trauma on learning (e.g., Perfect et al., 2016), and knowledge of effective practices to promote learning for these students (e.g., Perry and Graner, 2018), preservice teachers should be trained in this content. The COVID-19 pandemic, and increased attention to student and educator wellbeing, may present an opportunity to spark institutional change and support (e.g., accreditation and licensure requirements) for more widespread preservice training in trauma-informed teaching practices.

Finally, continued research on the implementation and outcomes of trauma-informed schools PD approaches is needed. To date, there are very few peer reviewed trauma-informed schools PD studies that present a logic model along with outcomes (for examples, see Dorado et al., 2016; Schimke et al., 2022). This is an important next step in trauma-informed schools PD implementation to allow for comparisons and replication of approaches. The present study provides important evidence of potential outcomes of trauma-informed schools PD and identifies educator empathy and self-regulation as potential mechanisms of trauma-informed practice implementation. Future research is needed to investigate if and how the outcomes presented in the present study can be replicated in additional schools and test educator empathy and self-regulation as potential mechanisms facilitating the implementation of trauma-informed practices.

## Conclusion

How we proceed in healing from the COVID-19 pandemic will shape our future for decades to come. Supporting children—who are highly vulnerable to trauma—and those who work with them is crucial to the future of our society. Trauma-informed schools PD may be an increasingly important protective factor for large numbers of students and educators. As school communities come back together to heal, teach, and learn during and following the pandemic, there is an urgent need for careful implementation and continued investigation of trauma-informed schools PD approaches.

## Data availability statement

The raw data supporting the conclusions of this article is unavailable due to IRB protections.

## Ethics statement

This study involving human participants was reviewed and approved by the Boston University Institutional Review Board. Written informed consent for participation was not required for this study in accordance with the national legislation and the institutional requirements.

## Author contributions

The author confirms being the sole contributor of this work and has approved it for publication.

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## Conflict of interest

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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# Experienced, trauma-informed teachers working in remote Australia: What is required for their work to be effective?

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**Introduction:** In remote education settings in Australia, experienced teachers who can effectively support students impacted by trauma are essential. Remote communities are unique yet are in many ways vulnerable to trauma as they face higher rates of disadvantage and exposure to traumatic events, including natural disasters and domestic and family violence. This is compounded by a lack of access to effective supports due to the tyranny of distance. Also, First Nations peoples living in remote areas continue to endure the ongoing and traumatic impacts of a violent and disruptive colonization.

**Methods:** The qualitative research study detailed in this article explored the requirements for the work of experienced, trauma-informed teachers in remote Australia to be effective, adding an important and unique perspective to the research evidence that is not often considered. Seven teachers from remote Australia completed a short, online questionnaire and participated in a focus group interview which was analyzed thematically.

**Results:** Themes emerging from the focus group data indicated that specific and contextualized preparation and support for teachers is required for them to do their work effectively. For remote Australian settings this means preparing teachers with cultural awareness and relevant trauma-informed training. Further, the wellbeing of these remote educators is often compromised, and addressing systemic factors such as adequate preparation of their colleagues and support to access relevant ongoing professional learning is needed.

**Discussion:** Remote teaching work in Australia is complex, and while the current study is small and exploratory in nature, the findings highlight some of the real-world impacts of these issues at a community and individual teacher level that have not been previously explored.

KEYWORDS

trauma-informed, experienced, teachers, remote, school

## 1. Introduction

In Australia, many terms are used to define 'remote,' for example 'the bush,' 'outback,' 'the sticks,' and 'isolated' (Roberts and Guenther, 2021). Remote communities are each unique according to geography, history, culture, and customs. Yet all require well prepared, experienced, and resilient teachers (Perso and Hayward, 2015). However, teachers working in remote communities can experience additional challenges not faced by their metropolitan counterparts and often need

further preparation. All teachers need to balance the delivery of a "crowded curriculum" with meeting individual students' personal and educational needs (Crump, 2005, p. 31). However, teachers in remote schools are also working with students who are more often socio-economically disadvantaged and who experience higher rates of trauma than students in metropolitan areas. This can be due to greater exposure to domestic and family violence, greater direct experience of natural disasters, and higher rates of involvement with child protection services (Mitchell et al., 2013; Roufeil et al., 2014; Goodridge and Marciniuk, 2016; Australian Institute of Health and Welfare [AIHW], 2022a). This can also be due to students facing additional challenges associated with their having limited access to support services in their communities, requiring that they rely more often on teachers and schools for support (Evans et al., 2008; Caringi et al., 2015; Chafouleas et al., 2016). Students who have experienced trauma can display challenging behaviors which can impact on the learning of other students and the teacher's ability to support and educate (Porche et al., 2011; Howard, 2013; Ban and Oh, 2016; Brunzell et al., 2016; Berger et al., 2021). If teachers are not trained in trauma-informed practices, they may misinterpret these behaviors as being deliberate disobedience and might respond in ways that can reinforce the trauma and disadvantage suffered by students in remote areas (Goodman et al., 2012; Howard, 2013; Bonk, 2016).

Since the 1980s, there has been a plethora of research, both in Australia and internationally, that has focused on the preparation of pre-service teachers and the retainment of early career teachers in remote schools (Barker and Beckner, 1985; Yarrow et al., 1999; Hudson and Hudson, 2008; Lassig et al., 2015; Papatraianou et al., 2018). Unlike pre-service and early career teachers (White, 2019; Hudson et al., 2020), there is not the plenitude of research examining experienced teachers who work in remote settings and there is certainly a dearth of research examining experienced teachers who are also trauma-informed.

There is also a lack of consistency in the research literature regarding definitions of what constitutes an *experienced teacher*, and no clear definitions are provided for what constitutes an *experienced, trauma-informed teacher* (Graham et al., 2020). Therefore, for the purposes of this research, two definitions were adopted to help frame data collection and analysis. *Experienced teachers* are defined as those who have more than 6 years of teaching experience (Akbari and Tajik, 2009) and *trauma-informed teachers* are those who realize the impact of trauma, recognize the symptoms of trauma in their students and community, and respond by applying their understandings through practices to reduce re-traumatization (Substance Abuse and Mental Health Services Administration [SAMHSA], 2014; Maynard et al., 2019). These teachers also have a deep understanding of the skills and knowledge they bring to their teaching and how their own experiences, skills, and behaviors influence how they respond to childhood trauma in the context of their work (Champine et al., 2022). The participants in this study met the requirements of both definitions and all had experience working in remote schooling.

In general, teachers working in remote schools face challenges not encountered by their urban and metropolitan counterparts. As an example, remote teachers face tensions associated with social proximity and a lack of privacy, which can be referred to as "living in a fishbowl" (Karlberg-Granlund, 2019, p. 297). Also, there can be substantial expectations placed upon them by their local communities (Pavlic-Roseberry and Donne, 2022). Remote teachers are often trying to meet both the demands of the communities in which they live and "the upward accountability environment of the

system" in which they work (Guenther et al., 2016, p. 47). This "upward accountability" often requires that those who have more experience than others be given greater work responsibilities whereby they are required to "wear many hats within the school" (Trikoilis and Papanastasiou, 2021, p. 4). This can also be exacerbated by insufficient staffing, another quite common occurrence in remote areas. Teachers can also be required to take on leadership positions in their schools despite their having limited or no training to prepare them for these roles (Jarzabkowski, 2003; Jenkins et al., 2011). Also, they may have limited opportunity to learn from and work collaboratively with other experienced leaders from other schools (Nordholm et al., 2022). Experienced teachers who are also trauma-informed may be working with other staff members who are not ready to become trauma-informed due to personal biases and not understanding the need for trauma-informed practices or not being aware of the prevalence or impact of trauma in their communities (Wassink-deStigter et al., 2022). This can present challenges for teachers in remote schools to find a balance between work demands and maintaining their personal wellbeing (Karlberg-Granlund, 2019) and for them to lead and implement trauma-informed work in an effective manner. It is important to explore the requirements for the work of remote, experienced, and trauma-informed teachers to be effective, whilst also considering the personal and professional well-being of these teachers.

Attracting and retaining teachers to rural and remote communities has been an ongoing challenge for education systems in Australia (Hasley, 2018). To address this, Australian state and territory governments and education systems have undertaken different approaches to attract and retain teachers (Organisation for Economic Co-operation and Development [OECD], 2018). Examples include education systems collaborating with universities to provide professional experience opportunities for pre-service teachers, school leaders and experienced remote school teachers participate in teacher recruitment roadshows and fairs, financial incentives (subsidized rent, relocation allowance, increase pay), extra leave, and study leave incentives (Organisation for Economic Co-operation and Development [OECD], 2018; Commonwealth of Australia, 2020). Despite these incentives, it is often early career teachers being placed in rural and remote communities in the first years of their careers (Carroll et al., 2022). The most current collective data suggests that 30% of teachers in Australia work in rural and remote schools (Australian Institute for Teaching and School Leadership [AITSL], 2021), and 26% of these teachers are in their first 5 years of teaching (Freeman et al., 2014). Many teachers who work in remote settings are "unable to cope with the reality of the experience" (Perso and Hayward, 2015, p. 201) due to conditions including isolation and a lack of services, teaching multi-age classes, responding to the behavior of students, teaching high proportions of students who live with a disability, and teachers having a general lack of cultural awareness (Lock et al., 2012; Kline et al., 2013; Willis et al., 2017). Many of these teachers have grown up in cities and towns and attended metropolitan schools and universities and therefore have not experienced the cultural and linguistic diversity of remote Australia and need significant and informed support to transition well to teaching in a remote setting (Brasche and Harrington, 2012; Disbray, 2016; Willis et al., 2017; Commonwealth of Australia, 2020).

When teachers first arrive in a remote setting, they may experience "culture shock" (Oberg, 1960; Adler, 1975; Muecke et al., 2011; Irving et al., 2017; Brown et al., 2022). This may occur when students and parents bring "community and cultural values into the classroom" (Eady et al., 2021, p. 214) that are vastly different to the teacher's own

cultural background. Thus, it is important that teachers new to remote areas are culturally aware (Foley and Howell, 2017; Biddle et al., 2018; Wilks et al., 2020; Brown et al., 2022). In Australia, people identifying as Aboriginal and/or Torres Strait Islander consist of 3.3% of the Australian population yet comprise 32% of the population in remote communities (Australian Institute of Health and Welfare [AIHW], 2022b). So, an important part of being culturally aware is for teachers to understand Australia's history from Indigenous perspectives, including a thorough awareness of the effects of colonization, dispossession, assimilation, and the impact of the Stolen Generations in which Aboriginal and Torres Strait Islander children were "forcibly separated from their families and communities since the very first days of the European occupation of Australia" (Wilson, 1997, p. 22). This severe and tragic disruption led to the destabilization and sometimes destruction of traditional family units in remote communities which in many cases, resulted in intergenerational trauma (Menzies, 2019). Intergenerational trauma is defined as the secondary impact of trauma that is passed down through generations and which has a damaging impact on family systems (Raphael et al., 1998; Cromer et al., 2018). Therefore, it is also essential that teachers new to remote settings are aware of the history, needs, and strengths of the local community in which they work. These variables make addressing trauma in remote communities "complex and multilayered" (Kreitzer et al., 2016, p. 50) and further highlight the need for teachers working in these settings to be culturally aware and trauma-informed.

To be eligible for teacher registration in Australia, an initial teacher education degree must be completed. This university qualification is offered through different programs of study (e.g., 4 year Bachelor Education or 2 year Master of Teacher (post-graduate) majoring in either early childhood education, primary, or secondary education). Options for study typically include online or internal delivery (or a combination of both), and service a variety of different student populations (undergraduates, post graduates, international students, and mature age students) to meet the different job market needs (Australian Institute for Teaching and School Leadership [AITSL], 2023). Due to the differing contexts, making comparisons between the different providers and modes of study is unable to be made (Australian Institute for Teaching and School Leadership [AITSL], 2023). However, the research to date suggests that many teachers have not received training in cultural awareness of trauma-informed practices and are currently unaware of how childhood trauma can impact on student education and wellbeing (Brunzell et al., 2021).

University education in trauma-informed practice can increase favorable attitudes and knowledge of preservice teachers in this area (Brown et al., 2020; L'Estrange and Howard, 2022) but this is not available in all initial teacher education programs in Australia. Also, once working in schools, it is important for teachers to receive ongoing training as this can increase confidence and teacher emotional self-regulation for when they need to manage any challenging behaviors of trauma-impacted students (Stokes and Brunzell, 2019; Berger et al., 2021). It is unfortunate that accessing professional development opportunities in remote settings can be limited due to the tyranny of distance impacting the availability of face-to-face training and complexities with internet provision for on-line training (Dorman et al., 2015; Carroll et al., 2022). Perso and Hayward (2015, p. 202) suggest that due to the complexities of teaching in remote settings, it

is "almost impossible to fully prepare someone for the job of teaching in a remote school," suggesting that teachers working in a remote setting also need to be quite resilient (Papatraianou et al., 2018; Willis and Grainger, 2020).

Unfortunately, there can also be a disconnect between teacher preparation and the knowledge, skills, and cultural awareness that is needed for teachers in remote areas to do their work in an informed and effective manner (Lock et al., 2012; Roberts et al., 2021). Another critical area of preparation that can sometimes be lacking, is cultural awareness training. A lack of cultural awareness training can lead to deficit discourses being accepted by teachers and being directed at students, family, community, and school personnel (Auld et al., 2016; Stacey, 2022). Teachers may have insufficient knowledge and skills to teach in a culturally responsive way, with many not having accessed Indigenous studies at all during their initial teacher education (Llewellyn et al., 2018; Vass et al., 2019; Willis and Grainger, 2020) and few may have received any form of professional training in cultural awareness and culturally appropriate education practice since commencing their careers (Lock et al., 2012). It is clear that teachers require more consistent training and support for them to work safely and competently with Indigenous students who are impacted by trauma (Australian Government, Department of Employment, Education and Training, 2020). To be effective, cultural awareness training needs to be specific to the unique histories, attributes, and needs of individual communities and should be designed to adequately prepare teachers to respond well to the contextual issues that they may face (Lock et al., 2012). It is important that this training includes knowledge and skill development to support students impacted by trauma, and the health and wellbeing issues that can be experienced by students (Lock et al., 2012). Part of cultural awareness involves teachers knowing how to connect with community and understanding the culture and home lives of students, including any trauma that may have been experienced (Eady et al., 2021). Therefore, to support and educate their students well, teachers in remote areas need cultural awareness training that also includes training in trauma-informed practices (Brown et al., 2020; Willis and Grainger, 2020).

Teaching can be a demanding profession and consequently, teachers can be vulnerable to stress. This is particularly relevant for those who work with students impacted by trauma (Spilt et al., 2011; Borntrager et al., 2012; Lever et al., 2017; Koenig et al., 2018; Berger et al., 2021; Brunzell et al., 2021). Intense and ongoing stress can lead to compassion fatigue, which is defined as "the natural, consequent behaviors and emotions from knowing about trauma experienced by a significant other – the stress resulting from helping or wanting to help a traumatized or suffering person" (Figley, 1993 as cited in Figley, 1995, p. 7). Hearing student's experiences can bring back teachers' own memories of trauma and this may impact on their teaching capacities (Caringi et al., 2015; Wassink-deStigter et al., 2022). Teachers experience a higher rate of compassion fatigue than many other related professions and report greater levels of secondary traumatic stress even though stating as having job satisfaction at comparable levels to other helping occupations (Brunzell et al., 2021). Compassion fatigue is acute for teachers working in low socio economic and remote communities due to the high numbers of students with whom they work who have been exposed to trauma that includes community and family violence (Lever et al., 2017). Teachers in Australia's remote areas have higher levels of stress compared to those who teach in urban

areas with early career teachers experiencing the highest rate of stress compared to those who are experienced teachers and those who are late in their career (Lock et al., 2012; Carroll et al., 2022). There are several factors that contribute to this prominent level of stress experienced by teachers in remote schools. These include the impacts of under-staffing, the expectation that teachers act in many and diverse roles to address staffing needs, limited access to resources and support, teachers experiencing personal and professional isolation (Carroll et al., 2022), and working long hours because of the professional and social expectations of visibility and contact with the community (Eacott et al., 2021). Thus, "boundaries between professional and personal life are frequently blurred" (Eacott et al., 2021, p. 19). High levels of teacher stress can impact on the stress experienced by students which, in turn, can impact on student learning and well-being outcomes if not addressed (Lever et al., 2017).

Thus, the work of teachers can be described as "emotionally intense" (Heffernan et al., 2022, p. 1) as teachers are sensitive to the challenges that students experience (Townsend et al., 2022). Part of this emotional intensity includes teachers becoming frustrated with colleagues who have a lack of experience with and knowledge of how to support students who exhibit challenging behaviors (Caringi et al., 2015). Facing these difficulties, teachers are required to continue to do their work while evading compassion fatigue (Essary et al., 2020) and despite these difficulties, many teachers stay in the profession as they feel a sense of responsibility to students (Essary et al., 2020).

With this in mind, there is now an imperative for education systems to recognize the prevalence and impact of trauma in student populations in remote areas and to respond by supporting teachers in remote areas to do their work effectively with students impacted by trauma (Keane and Evans, 2022). This can be achieved by teachers being trauma-informed, which means teachers understand the type and prevalence of adverse experiences amongst students, recognize the impact these experiences can have, and ensure that school is not a place of re-traumatization (Bellamy et al., 2022). Thankfully, there are some highly experienced and dedicated, trauma-informed people working in remote schools who recognize the impact of trauma on students and communities and who are advocating for the consistent implementation of trauma-informed practices in schools (Brown et al., 2022). With appropriate support, the work of these teachers will be nurtured and enhanced, and the numbers of these teachers will grow.

There is growing research on teachers' experiences associated with working with students impacted by trauma (Barrett and Berger, 2021; Brunzell et al., 2021; Miller and Berger, 2022) but there is a lack of research focusing on the experiences of highly trained trauma-informed teachers, particularly those who are working in remote settings. It is this lack of research that has prompted this current study. In this study, highly experienced (more than 6 years teaching), highly trained trauma-informed teachers are defined as teachers who have undertaken training in trauma-informed education practice during post graduate studies at a tertiary institution as well as accessing a range of professional development within the school system. This study aimed to answer the following research question: *What is required for the work of experienced trauma-informed teachers in remote settings to be effective?*

## 2. Methods

### 2.1. Participants

Participants in this qualitative study included five female teachers and two male teachers with a mean age range of 30–39 years. Participants had been teaching for up to 20 years, averaging 11–15 years of working in remote schools. A remote school is defined as a school located in a very remote or remote area as identified by the Australian Bureau of Statistics which use the Accessibility/Remoteness of Australia (ARIA+) to define remoteness *via* a geographic measure of distance from the nearest service center (Australian Bureau of Statistics, 2023). The further the distance from a service center, the more remote the location (Australian Bureau of Statistics, 2023). Half of the participants had been working in their current remote schools for 3–5 years and the other half were within their first 2 years at their current schools. The participants' professional roles included one deputy principal, one senior teacher of inclusion, one head of department, one head of learning, two secondary teachers, and one student support officer. All participants worked in secondary schools (students aged 13–18 years) in remote areas across Australia: four in Queensland, one in the Northern Territory, one in New South Wales, and one in Western Australia.

Participants were recruited through their engagement in one of two post-graduate university courses focusing on trauma-informed education in which they were enrolled during 2021. These courses (a Graduate Certificate, or Masters degree in Education) were both offered at the same university and could be studied online or internally. The trauma-informed education component of each course was similar and included an introduction to trauma-informed education, understanding adverse childhood experiences, the neurobiology of trauma, learner groups affected by trauma and leading trauma-informed education. Participants were recruited immediately after the completion of their university studies and data was collected within 2 months. To be eligible for participation in the study, participants needed to be currently working in a remote school or to have worked in a remote school within the previous 18 months. Participants also needed to be experienced (greater than 6 years teaching) and highly trained in trauma-informed practice (completion of post graduate training). Due to the specific sample required, a snowball sampling approach was also included. Snowball sampling is a method in which participants for a study are asked by researchers to recommend individuals as future participants (Crouse and Lowe, 2018). For this study, participants shared the recruitment information with their networks. Of the seven participants, six were recruited through the university and one was recruited through snowball sampling.

The participant numbers in this study are small as finding experienced, trauma-informed teachers was a challenge as they are understandably a minority within the broader group of remote school teachers in Australia (and this group is in its entirety is only a small percentage of Australian teachers). The Australian Teacher Workforce Data Teacher Survey 2018–2020 reported there are approximately 2% ($n = 418$) of classroom teachers in remote or very remote schools compared to 66% ($n = 11,061$) of classroom teachers in major cities (Australian Institute for Teaching and School Leadership [AITSL], 2022). Despite the

small number, the study was able to take a "deep dive" into the lived experiences of these experienced remote teachers which adds valuable findings to the growing evidence base of trauma-informed practices in schools.

## 2.2. Materials and procedure

To understand what experienced trauma-informed teachers who work in remote settings need for their work to be effective, participants answered a short online questionnaire and participated in an online focus group interview. Approval to research was granted by a university Ethics Review Committee. Invitations to participate in the research were emailed to people who were enrolled in the post graduate trauma-informed education courses. Participants contacted the first author to express interest in the study, and after receiving the project information sheet and providing written consent, they completed a short, online questionnaire. The questionnaire required for them to provide information about (1) their time working as a teacher; (2) their current employment location; (3) the length of time that they had worked in current remote setting; (4) their main role within the school; (5) the state or territory in which they currently work; (6) any professional learning that they had accessed in the previous 12 months; and (7) their perceived level of professional and personal wellbeing.

A focus group interview was conducted after all participants had completed the questionnaire. Focus group interview questions were informed by questionnaire responses and focused on teachers': (1) confidence for working with students impacted by trauma; (2) years working in remote school/s; (3) reflections regarding their professional development and formal training in trauma-informed practices; (4) perceived level of wellbeing; and (5) recommendations to meet the needs of teachers in remote areas to work effectively with students living with the effects of complex childhood trauma. These primary areas of questioning were explored using open-ended questions, with additional probing questions being used as required and according to participant responses. Examples of prompts or questions that were used included: "Summarize your experience of working with students impacted by complex childhood trauma," "How confident are you when doing this work?" and "Has working with students living with the effects of complex childhood trauma impacted on your personal and/or professional wellbeing and if so, how?" The focus group interview was of approximately 100 min duration, was facilitated by the first author, was audio recorded and professionally transcribed. All responses were de-identified.

## 2.3. Analysis

Based on the exploratory nature of this study, a qualitative research design using reflexive thematic analysis (Braun and Clarke, 2006) was used. This study was exploratory due to limited research literature available that discusses the experiences of highly trained, trauma-informed teachers or teachers working in remote settings who teach students living with the effects of complex childhood trauma. Focus group interview data were analyzed, and themes were generated. The analysis was conducted in several stages as outlined by Braun and Clarke (2006, p. 87): "familiarization with the data, generating initial codes, search for themes, reviewing the themes, defining, and naming themes, producing the report, and selecting appropriate examples to illustrate the themes." The analysis was not a linear procedure, it was an iterative and in-depth reflexive process.

The first step in the thematic analysis involved the first author of this article reading and re-reading the interview data and manually coding these into segments of recurring ideas. Themes were then generated by the first author into overarching and subsequent themes. The second author of this article independently analyzed the data and then consulted with each other regarding the potential themes and subsequent themes. The authors then collaborated on the final set of themes and subsequent themes and consensus on the themes was reached through dialogue. Three overarching themes emerged from this process.

# 3. Findings

Within the richness of the data, three main themes emerged that addressed the research question: *What is required for the work of experienced trauma-informed teachers in remote settings to be effective?* Quotes are incorporated in this article to illustrate the experiences and thoughts of participants associated with each theme and each is accompanied by a participant identifier (for example P1 refers to participant one). Identifying information has been omitted to safeguard participants' anonymity. Table 1 summarizes the three themes generated through the thematic analysis.

## 3.1. Preparation specific to remote settings

The importance of specific and adequate training and preparation were identified by participants as necessary for teachers to be able to teach effectively in remote settings with students impacted by trauma.

TABLE 1 Themes identifying what is required for experienced trauma-informed teachers work to be effective.

| Theme | Description |
|---|---|
| Preparation specific to remote settings | The influence of professional training and/or post graduate university study in trauma-informed practice and challenges faced in accessing training. |
| Impacts on wellbeing | The impact on the personal and professional wellbeing of experienced trauma-informed teachers, and the importance of relationships. |
| Systemic issues | Systemic issues that continue to present barriers for teachers in remote settings such as recruitment, lack of preservice preparation, and cultural awareness training. |

Participants in this study were experienced teachers working in remote settings and highly trained in trauma-informed practices having accessed postgraduate university training in trauma-informed practices, as well as other trauma-informed professional training opportunities either prior to, during, or after their post-graduate university training. Participants suggested that the training they undertook prepared them to work with students impacted by trauma by extending their knowledge and understanding of trauma-informed practices and underpinning theories. Participants shared their key learnings from undertaking post-graduate training in trauma-informed practices. One explained that *"The course [higher education post graduate course] has been really good because I've been able to attach the science to the philosophy or the belief of the practice"* [P4]. Another participant shared that, *"the [higher education post graduate course] course has been great for [explaining] a wide breadth of knowledge and the neuroscience and everything behind it"* (P5). However, one participant acknowledged they felt the training accessed, both professional development and the post-graduate course was *"generalized"* (P2) rather than being contextualized to what was required for teaching in a remote setting. This participant also reflected on the importance of Aboriginal and Torres Strait Islander perspectives being included in any training regarding trauma-informed practice.

Participants shared that although they valued past training in trauma-informed practices, ongoing training and support was critical for them and for other staff to be able to work effectively with trauma-impacted students. One participant explained this by stating,

> *[Training] I did a few years ago was understanding the ACEs and how a high score contributes to outcomes of behavior, suspension and obviously retaining our kids. Then during [Training], again doing it the second time around…I felt like doing it again really consolidated all the learning the first time around. Because I think the first time around, I was so overwhelmed with how many strategies and skills and all the neuroscience, I kind of didn't understand – not that I didn't know where to start but it was a lot. Whereas the second time around, I'm hammering that, I'm picking that up, and just really easy strategies…just small things (P7).*

On reflection, participants identified challenges they faced in accessing ongoing training, due to their working in a remote setting. One participant disclosed, *"professionals [trainers] aren't willing to give up that time to come remote, in the middle of nowhere, to provide that service [Training]. There's still a lot of challenges about professional learning for remote communities or for teachers in remote communities"* (P4).

In some remote communities, trainers do travel to schools and a participant in the study emphasized the benefits of this by stating,

> *We're in a bigger school, they [school leadership] do seem to invest more into getting people to us and then it's much more effective – because you're actually doing the activities with your colleagues in the right – in the same context and that can be very powerful (P2).*

Other participants detailed the challenges they faced to access relevant training if this was not provided onsite at their school. These included long distances to travel, difficulty arranging childcare, and budgetary and other impacts on schools that were associated with accessing relief teaching staff. One participant described this,

> *Financial aspect, that schools are having to commit in terms of travel in a remote community, but I think there's a massive impact on staffing…. the length of time that you're out a day either side to travel, the cost of travel which for some communities is – I don't know, upwards of $600 one way [airfare]. But bigger than all of that is then being able to release teachers…. very difficult because you can't get TRS [teacher release scheme – assists schools with replacing teachers while they are absent from school]. It's usually one person that maybe gets to go [to the professional training] and it depends on staffing at the time (P6).*

Participants noted that a consequence of the COVID-19 pandemic was that training became more accessible to teachers in remote areas as face-to-face training increasingly moved to online provisions. This was recalled by a participant,

> *In the last 18 months with COVID, things have been moved forward in terms of, there's so many more PDs [professional developments] are accessible online and that are offered after school or before school….I think things are more accessible than they were 18 months ago, and I think it's only going to increase now because we can actually do it remotely, we don't have to do it face to face (P7).*

However, for some participants accessing training online continued to present challenges as revealed by one participant, *"then there's the added complexities of accessing viable internet services…. whilst the internet and online stuff has opened up opportunities, I think that there's lots and lots of challenges for remote and very remote"* (P4).

Once overcoming barriers associated with accessing training, participants described the enormous and positive impact trauma-informed practices had on how they made meaning of their work in a remote setting.

> *Living in community, seeing what happens in community day in, day out, 24/7, hearing it, just being with families that are dealing with, well I didn't call it trauma then because, well, I didn't know what it was. It [training] just all made sense and I'm like, oh God for the last 12 years this is what I've been dealing with. I wish I knew now back then, and I can imagine the impact with the different – the impact I could have had on these kids' lives if I had've known what I know now (P7).*

Another participant agreed, *"Being able to have that word [trauma] become part of how I thought about and the way that kind of changed my practice"* (P2). While another participant appreciated how the post graduate training addressed their skill development in leadership. *"What I love about this course [post graduate course] is that it is challenging me now at a leadership level to look beyond the classroom and to impact the whole school and community wide, and also have a voice systematically"* (P3). The overwhelming consensus from participants emphasized that despite the challenges, accessing quality ongoing training in trauma-informed practices is essential.

## 3.2. Impacts on wellbeing

Even though participants in this study were experienced teachers who were highly trained in trauma-informed practices and who identified that they had good relationships with students and families, they also were keen to discuss how their work impacted on their wellbeing. Wellbeing, as discussed by participants' in this study, referred to feelings of satisfaction and meaning at work, balancing work with personal life, and looking after their emotional, mental and physical health. Their responses clearly explained that it can be challenging to maintain good health and wellbeing when you are a teacher working in remote setting with students impacted by trauma. This was influenced by both internal factors (personal characteristics of the educator) and external factors (location, students, community, other teachers). One participant shared, *"I think remote has so much to offer if we are willing to embrace it. I think it is an amazing place to grow but it's also a place that can break you if you are not resilient enough to deal with it"* (P3).

Most of the participants ($n = 6$) drew on their self-awareness in which they identified the importance of self-reflection and their understanding their own needs, strengths, and limitations. As one participant disclosed,

> *Your relationship with yourself should be so healthy so that you can know… I have my own limitations and I first need to take care of myself if I want to have an effective impact on the students, I work with…. I do live in a highly distressed community – to make sure – because I was carrying my own things – to make sure that doesn't trigger me* (P3).

It was suggested that this type of self-awareness enabled teachers to reflect on what they needed to do to continue to effectively do their work.

Another participant conveyed the changing nature of their wellbeing. *"In terms of my personal wellbeing, there are times when it's incredibly difficult…personally, I feel like at the moment, but ask me tomorrow it might be different, that I'm travelling along pretty ok"* (P4). This was also like another participant, *"I try and find that balance because some days are horrific. But there are other days where I have – everything just falls into place, the students are amazing, everything goes right, so everything you know, a bit of a balance"* (P1).

Findings suggest that working in a remote setting with students impacted by trauma can, in some instances, have a long-term impact on teacher wellbeing. As explained by one participant, this can be due to

> *Hearing constantly about hardships and the traumatic things that kids go through, when you lay in bed at night or you're sitting with your family at home and you look around at your own privilege, it hurts, and sometimes you can't – like I know tears probably come once a month with the weight that you bear on your shoulders. Sometimes you look around your school and you think, if I wasn't here for these kids, where would they be or who would they go to? If I ever left, what would happen? Professionally, I think the more experience you have, the longer you are at a school – well I speak for myself – you become the dumping ground for our hardest kids* (P7).

Participants in the study suggested that their wellbeing was impacted because they felt they had to do everything they could to ensure that the needs of the students impacted by trauma were met. Participants also identified this need to take on everything in other staff members as well.

> *The biggest problem that I've come across is staff trying to – or feel they need to solve the world and they take that on board. It's lovely that they want to do that, but it becomes all – encompassing, and it also becomes very difficult to handle when there's not simple answers for complex problems* (P4).

Participants indicated the feeling of having to *take on everything* took up a significant amount of time in their day at the expense of their own work and personal life. One suggested that,

> *You definitely take on everything because there's only such a few number of staff. I don't do it for my own personal glory, it's for the kids, so that where I'm working from, to make sure they get that easy transition from primary school to high school, that easy transition from high school, through high school into the work force. I can be working until 6 o'clock at night, sometimes later* (P1).

Another participant reported,

> *There's not time during the day where you can actually sit at your desk and do the 17 million things I've got to get done as my own role as a leader, but I can't because I've got 7 kids that need me, haven't got shoes, haven't had food, Mum and Dad have a massive blue [fight], haven't slept – dealing with that constantly. Then when getting home, having the relationship with community, sometimes my phone doesn't stop till midnight dealing with different things* (P7).

Feeling that they needed to *take on everything* led to participants to be frustrated when they tried to provide an education to students.

> *The part I find hard and the most frustrating is actually being able to still provide the education, still be able to build a pathway and to see success and that's – you get so good at providing the relationship that the actual – the progress or the outcomes become harder to see* (P2).

Participants also relayed the frustration felt toward colleagues who were not trauma-informed in their practice. One suggested that,

> *There's a few really great colleagues I've got that get it [trauma] but then there's other colleagues that just have no idea, and professionally it makes you feel really undervalued"* (P7). Another voiced, *"My other frustrations come from other staff members and their – like other people were saying, their sort of lack of understanding in regard to it [trauma]. In my role, I frequently fight fires that the young person didn't start, the staff member started, and the young person's just carried it on and escalated it with them and I've got to fire fight [resolve the issue]* (P5).

Despite the significant impact on wellbeing associated with working in remote settings, all teachers in the study drew strength

from the relationships they had built with students and families. One participant explained how they

> …developed a relationship, and that relationship base really did allow me to, allowed me to grow as a teacher as much as it allowed the student to grow as a student" (P1). Another participant recounted, "That [relationships] enabled me to have that confidence because I was really, not afraid of trauma and then not afraid to engage with families, because most families I found were just crying out for release or just someone to hear them, not answers or anything, but just for someone else to understand what is going on" (P7).

A further participant shared,

> You do connect to the community……. There's all the negativities but there's a whole bunch of positives associated with living in community around relationship building, and of course there is the negative side to that. There's the ability to get out and live and breathe country. I'm connecting to really amazing people, building really amazing relationships (P4).

## 3.3. Systemic issues

Systemic issues that were barriers to working effectively with students impacted by trauma were also discussed by participants. Systemic issues identified by participants included: (i) issues with recruitment of teachers to work in remote settings, (ii) a lack of preparation of teachers to work in remote settings, (iii) a lack of understanding by teachers of the impact of trauma on students, and (iv) a lack of trauma-informed, cultural awareness training.

One of the key barriers participants identified was how teachers were recruited to work in remote settings. One participant shared,

> I find that our regions with really remote areas sometimes create an impression that, come out and have this incredible adventure. They create a picture of all of these wonderful things that young educators can come and experience and each one of those things are true, but if that is the reason why they come out, they come with these false expectations. [Need] to make sure that they know their 'why' when come out, they know that these places [remote] are called places of adversity. Just the remoteness in itself is adverse and then its heat of 40 degrees on a consistent and then you add to that the levels of distress in our communities and what they experience. I don't think our systems are actually able to care for our educator's mental health and wellbeing (P3).

The lack of preparation of teachers at the pre-service level was also identified by participants as a systemic issue. One participant who held this view expressed that "getting new teachers straight from uni is not the answer" (P1). This lack of preparation was further explained by a participant who identified additional systemic issues related to training and recruitment.

> I'm not sure that we [education systems] prepare people enough before they come out…staff need to be well prepared for coming out

to remote. There's some really challenging situations from a classroom perspective that staff aren't prepared for. The staff I'm working with here, 80% are first-or second-year teachers who never had remote or regional experience before – lack professional learning, lack of access to professional learning, and really not a particularly good understanding of what's like to teach in a remote or region – remote classroom as opposed to a mainstream classroom (P4).

According to participants, teachers who are not prepared to work in remote settings, often experience culture shock once they arrive and commence work. A participant reported that,

> It's a massive culture shock moving to a remote area for a lot of people in terms of everything – internet, food, shops that are available – all that sort of thing impacts on your life. All of them [teachers] come out of highly privileged environments in our metropolitan areas, and they come here, and it was in absolute ignorance, no idea of what to expect here. Within the first three weeks we had a crisis on our hands because they just could not mentally process what they were confronted with in our high school every day (P3).

Another participant shared their observations of the cultural bias displayed by some teachers who come to work in remote settings.

> I find there's a lot of cultural bias with their [teacher] own prior knowledge and their expectation of what they're coming into when they start working in a remote community. The natural bias of their own prior knowledge quite often, it just doesn't marry up (P1).

Another systemic issue identified by participants was working with teachers who had limited understanding about the impact trauma has on students' behavior and learning. Participants identified a correlation between students' relationships with teachers who were not trauma-informed, and their consequent challenging behaviors. A participant shared their observations of working with teachers who are not trauma informed,

> There's so many people still that are…they don't realise that it is not a personal attack [children's behavior]" (P7). While another reflected, "they [new teachers] come in, being high school, it's curriculum focus, my outcomes are a, b, c, and they forget that it's not just the outcomes that make the learning, it's actually the student's whole wellbeing that helps with the learning that in turn build with that learning as well" (P1).

Another significant systemic issue recognized by participants was the lack of cultural awareness training incorporating trauma-informed practices. One participant expressed this as "I would say that [cultural awareness is] really lacking actually in terms of PD available on trauma… lacking in terms of Indigenous perspectives" (P6). Teachers need cultural awareness and knowledge to support them to do their work, and when this is not forthcoming it has a major impact on wellbeing. This was clearly articulated by one participant,

> You need it [cultural awareness] full stop. You need to have that Indigenous knowledge and cultural awareness, that understanding

*of intergenerational trauma, and I think a lot of the vicarious trauma that teachers suffer is because they don't understand. They don't understand previous trauma, the intergenerational trauma as to how and why this affecting their [students'] behaviours and their language and how they speak and how they behave. So, yeah, I think having that lack of Indigenous culture [awareness] and knowledge really does then impede on vicarious trauma for the teachers* (P1).

Another participant expanded this further and identified what they see should happen to prepare teachers to work in remote settings with students impacted by trauma,

*Having worked quite significantly in Indigenous education and now living and breathing community life for the last few years, there's significant lack of Indigenous perspectives around trauma-informed practice. It should be compulsory for every educator to have Indigenous practice, understanding anyway and cultural awareness anyway, but if you're come out to communities, having some really good understanding* (P4).

## 4. Discussion

This study presents themes that emerged from a focus group interview with remote teachers regarding what is needed for them to do their work effectively with students impacted by trauma. A small but growing amount of research has focused on the perspectives of teachers working with students impacted by trauma (Alisic, 2012; Davies and Berger, 2020; Barrett and Berger, 2021; Berger et al., 2021; Miller and Berger, 2022) including those who are working in remote settings (Brown et al., 2022). Due to the paucity of research in remote school settings and the particular challenges faced by these teachers, it is important that research continues to examine this understudied topic.

A main theme that emerged consistently from data in this study was the importance of teachers being adequately prepared to work in remote settings with students impacted by trauma which included having access to quality training in trauma-informed practices. Numerous studies reports that teacher training in trauma-informed practice is limited (Davies and Berger, 2020; Barrett and Berger, 2021; Miller and Berger, 2022; Oberg and Bryce, 2022) and this is exacerbated for teachers in remote areas (Frankland, 2021; Oberg and Bryce, 2022). What is unique about the participants in this study is that all have completed post-graduate studies in trauma-informed education as well as additional professional training in trauma-informed practices, which makes them highly qualified to discuss the ongoing needs of experienced, trauma-informed teachers. In addition, participants in this study were living and working remotely. Thus, the findings of the current study add an important and unique perspective to the research evidence that is not often considered.

Through listening to participants in the current study, insight was gained into the challenges faced in accessing quality ongoing training and support due to geographic factors. It appears there are many barriers that remote teachers must overcome that their urban/metropolitan colleagues do not face, such as isolation, lack of professional training opportunities, lack of internet access, distances to travel and related costs. The barriers that participants in the current study faced have been identified in previous research (Motley et al., 2005; Maher and Prescott, 2017). For example, Maher and Prescott (2017) found that the main challenges remote teachers faced were location and lack of professional development opportunities. This was also identified by Motley et al. (2005) who found that maintaining currency in practice through differentiated professional development opportunities suitable to the remote context was needed. When teachers feel supported with ongoing professional development opportunities, they are more likely to stay in the profession (Maher and Prescott, 2017). The importance of teachers engaging in regular professional training is well established and essential in "sustaining meaningful change" (Riley and Pidgeon, 2019, p. 138). The central role teachers in remote communities play in facilitating change has been highlighted in recent work, particularly with youth affected by trauma (Brown et al., 2022). Therefore, supporting these teachers in ongoing professional learning is an essential part of addressing the underlying inequities associated with remote and trauma-affected communities. Currently, there is limited research into what is required to support the professional training needs of teachers in remote settings, and while this study adds insight into what addressing some of these challenges could achieve, further research is required to understand this more deeply.

Teachers in remote schools are at risk of negative impacts on their personal and professional wellbeing (Willis and Grainger, 2020; Hine et al., 2022). They are often working with students in communities that are more socio-economically disadvantaged and have higher rates of trauma than metropolitan areas. Despite being experienced and highly trained in trauma-informed practices, teachers in the current study reported their wellbeing was impacted. This is congruent with studies where teachers who have not received trauma-informed practices training reported that their wellbeing was also affected by working with students impacted by trauma (Berger and Samuel, 2020). This suggests that there is more than just lack of training which is impacting on the wellbeing of teachers who work with students impacted by trauma.

Several distinct reasons were given to explain the impact on the wellbeing of teachers in this study. These included feeling as though they needed to "do everything" to support children and families and their frustration with working with teachers who do not understand the impact of trauma on students' behavior and learning due to the lack of this focus in their pre-service training. The teachers who participated in this study have identified systemic issues related to inadequate preparation of teachers coming into remote areas that have been documented in international research in rural and remote education (Echazarra and Radinger, 2019; Riley and Pidgeon, 2019). As a consequence of the lack of preparation of their colleagues, teachers participating in the current study felt because they were experienced and trained, their colleagues tended to rely on them to address the needs of students impacted by trauma which did impact on their wellbeing and their other work commitments. To date, there is a small body of research investigating pre-service training in trauma-informed practice (Davies and Berger, 2020; McClain, 2021; L'Estrange and Howard, 2022) and the findings of the current study further emphasize the importance of adequate preparation of remote teachers by identifying the impact that a lack of pre-service preparation can have on more experienced teachers.

Teachers in the current study also expressed significant concern in relation to lack of cultural awareness training. In remote settings, cultural awareness is key to building and maintaining relationships with students, families and communities and is an important component of being trauma-informed (Morrison et al., 2019; Brown et al., 2022) and promoting a socially just way of working (Crosby et al., 2018). This study emphasizes that, when working in remote communities with high proportions of Indigenous peoples, teachers need to be culturally aware and be able to access ongoing, cultural awareness training that is specific to their local communities and not a "one-size fits all" approach. Training in cultural awareness and trauma-informed practices needs to be contextualized and address historical trauma to move beyond the questions of "what's wrong" with the student and "what has happened" to the student, to "why" these experiences have happened to the communities and to the students with whom they work (Gherardi et al., 2020, p. 492). This means teachers working in remote communities need to be aware of their own culture and their own position of privilege, and the disempowerment that disproportionately exists across society. This includes recognizing their position of power both as a teacher and as a member of a dominant culture and the influence this may have in the community in which they work (Crosby et al., 2018; Gherardi et al., 2020). Teachers need to bring "self-reflexivity to their roles in schools and communities, being aware of the differences that present to them within the context and responding with flexibility" (Guenther et al., 2016, p. 87). There was some evidence that teachers in the current study had a strong sense of cultural awareness and were reflexive in their responses to the students and staff with whom they worked. This was reflected in the importance they placed on building relationships within the communities in which they worked and their awareness of their privileged position.

One way to begin to address the impact of the lack of cultural awareness in remote teachers is to increase the opportunities for pre-service training and professional learning in this space. Currently, there is a lack of consistent high quality pre-service and in-service professional development in cultural awareness in Australia (Morrison et al., 2019). Further, teachers may not be accessing professional learning due to individual or school choice, due to other areas of staff development that are prioritized by school leadership, or due to the lack of quality professional learning opportunities that are available (Morrison et al., 2019). Research has shown that integrating culturally responsive practices improves teachers' ability to support students (Bonner et al., 2018; Gay, 2021). Trauma-informed practice embedded within culturally responsive pedagogy is emerging as a promising framework for schools and for the teaching profession (Chafouleas et al., 2021; Schimke et al., 2022). However, currently, it is not mandated in Australia for teachers to develop culturally responsive pedagogies (Morrison et al., 2019) or for initial teacher education to include trauma-informed training (Longaretti and Toe, 2017; L'Estrange and Howard, 2022). These are difficult and complex systemic issues to address, and while the current study is small and exploratory in nature, the findings highlight some of the real-world impacts of these issues at a community and individual teacher level. Findings from this study add to the imperative for future research to continue to include the voices of remote teachers and their insights into working with trauma affected students and communities.

# 5. Limitations

There were some limitations in this study. Challenges with recruitment of a representative sample led to a small sample size ($n = 7$) which needs to be considered in the interpretation of findings and their implications. Also, the recruitment method may have introduced some bias as participants were recruited through their engagement in post graduate education at one university. Given a different recruitment mechanism, other teachers from broader contexts may have chosen to participate in the study resulting in a more diverse sample and possibly different findings. However, given that we wanted to recruit a purposeful sample of experienced teachers from remote settings who completed post-graduate training in trauma-informed practices, the sample population to draw from is small. Another limitation of this study is that data collection focused on participants' professional experiences and did not explore personal factors that may have affected their experiences and therefore their responses (for example their own past histories and experiences). Providing questions in the online questionnaire regarding types of and number of professional development (trauma informed and cultural awareness training) opportunities accessed by participants would have provided further information about their training and how this may have influenced their practice.

# 6. Implications for future research

Future research could investigate what is offered at the pre-service level in preparing teachers to teach in remote settings, including what trauma-informed practices and cultural awareness training is provided by initial teacher education programs across Australia. Additionally, mixed-method data collection with a larger sample size and participants from broader contexts may also assist in evaluating the current capacity of teachers when working in remote settings with students impacted by trauma and the means to enhance this capacity. Identification of gaps in educator competency may also inform the development of targeted professional development and resources for teachers who are wanting to work in remote settings, so that they can become trauma-informed and culturally aware.

# 7. Conclusion

This study was able to identify some important findings regarding the needs of experienced, trauma-informed teachers who are working in remote areas to do their jobs well. Findings emphasize the need for greater and easier access to ongoing, quality professional training so that more experienced teachers remain equipped to take on leadership roles in trauma-informed practice in their schools and communities. Findings also emphasize the importance of pre-service teacher education in trauma-informed practice and cultural awareness to enhance the knowledge and skill of colleagues of experienced teachers, which would in turn make the work of experienced teachers easier and more effective. Quality preparation and training is essential for teachers in remote areas to respond effectively to trauma-impacted students and is vital to protect and enhance their personal and professional wellbeing. Through listening to the teachers who participated in this study, important insights into systemic issues that

could enhance or hinder their work were identified. Importantly, findings emphasized that teachers building relationships with their communities and having strong cultural awareness are vital for them to experience success when working with trauma affected students in remote settings.

## Data availability statement

The datasets presented in this article are not readily available because ethical approval for this study to conduct the research does not extend to the use of original/raw data in future studies. Hence data are not available in a public access data repository. Request to access data sets should be directed to the corresponding author. Requests to access the datasets should be directed to meegan.brown@qut.edu.au.

## Ethics statement

The studies involving human participants were reviewed and approved by the Queensland University of Technology Ethics Review Committee. The patients/participants provided their written informed consent to participate in this study.

## Author contributions

MB conceived and designed the study, collected the data, performed the data analysis, interpreted data for the article, wrote the manuscript, and co-ordinated authors in responding to successive drafts. LL'E conceived and designed the study, performed the data analysis, interpreted data for the article, and wrote the

manuscript. All authors contributed to the article and approved the submitted version.

## Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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# Developing a measure of educator self-efficacy around emotion co-regulation

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**Introduction:** Research suggests that one of the most pervasive consequences of traumatic events is the resulting dysregulation of emotions. Educators, including teachers, administrators, and student services staff, are instrumental in supporting students as they navigate overwhelming emotions by modeling and teaching skills to regulate emotional states (i.e., emotion co-regulation). Given the saliency of emotion co-regulation within educational contexts, this study presents the development and preliminary psychometric exploration of a measure of educator self-efficacy for co-regulation.

**Methods:** We examined differences by educator characteristics (gender, professional experience, role in the school) as well as previous training in trauma-informed approaches and culturally responsive strategies.

**Results and discussion:** Preliminary findings support the measure to be reliable and valid, with construct validity supported by positive associations to other theoretically applicable constructs such as culturally responsive strategies, as well as educator characteristics such as professional experience and role. However, a lack of association with trauma-informed training, suggests the need for additional research into supporting emotion co-regulation self-efficacy for educators.

KEYWORDS

trauma, student−teacher relationships, supportive classroom environment, emotional and social development, equity

## Introduction

Traumatic events are stressful experiences that completely overwhelm one's ability to adaptively cope in the moment, frequently indicated by feelings of horror or helplessness, serious harm, or the threat of serious injury or death (The National Child Traumatic Stress Network, 2015). Approximately two-thirds of children living within the United States have reported experiencing one or more traumatic events, including violence at home, shooting or robberies, and natural disasters (The National Child Traumatic Stress Network, 2015). Internationally, it is estimated that 1 billion children experience some form of physical and/or emotional violence, abuse, or neglect (The World Health Organization, 2022). Furthermore, exposure to traumatic events disproportionately affects lower-income and certain racial/ethnic minoritized populations (Bethell et al., 2017). Children exposed to traumatic events are at risk for homework difficulties, poor performance on standardized tests, low GPA, increased absenteeism, grade repetition, and punitive disciplinary action (Perfect et al., 2016; Dube and McGiboney, 2018). Thus, to support educators' and schools' efforts engaging in more equitable practices it is critical that we understand ways in which educators can support students exposed to traumatic events.

The ability to regulate emotions is a critical aspect of healthy development in childhood that is disrupted by exposure to traumatic events (Rosenbalm and Murray, 2017; Gruhn and Compas,

2020). Emotion regulation is broadly defined by the capacity to manage thoughts and feelings in order to achieve goal-directed behavior and adaptive interpersonal relationships (Van der Kolk et al., 2005; Panlilio et al., 2023). There are neurobiological mechanisms associated with both emotion and/or behavioral responses that become altered as a result of exposure to traumatic events (Marusak et al., 2015). For instance, scholarly work suggests that there are specific areas of the brain that become triggered in the presence of trauma making children exposed to adversity more likely to be emotionally reactive (D'Andrea et al., 2012; McLaughlin and Lambert, 2017). From a developmental perspective, research suggests that children's externalizing difficulties are associated with emotion dysregulation (Eisenberg et al., 2010). In addition, neuroscience has demonstrated that humans develop their abilities for emotion regulation through positive connections with reliable caregivers (Perry, 2007; Spinazzola et al., 2021); through these connections, emotion regulation is modeled and supported – a process known as co-regulation. Traumatic events have also been linked to diminished social functioning preventing children from creating and engaging in adaptive social interactions (McDoniel and Bierman, 2022). These disruptions may result in behaviors that negatively impact a student's educational experience such as challenges finding emotional outlets or managing feelings in developmentally appropriate ways (Meléndez Guevara et al., 2022). Children struggling with trauma may mistrust adults, which in turn, may negatively affect their relationship with educators or other adults within schools (Schwarz and Perry, 1994; Wilkinson, 2016).

In the context of early care and education, there is consistent evidence suggesting that early childhood professionals have a salient role in supporting the development of emotion regulation (Denham et al., 2012; Alzahrani et al., 2019; Hoffmann et al., 2020). However, less is known about how emotion regulation is supported for older children by educators in primary or secondary educational settings. This study presents the development and preliminary psychometric exploration of a measure of educator self-efficacy for co-regulation. Self-efficacy is defined as a set of beliefs regarding the perceived ability to accomplish a specific task (Bandura, 1995). In this study we assessed educators' self-reported perceptions of their ability to co-regulate their students' emotions. To do this, we developed a new self-report measure based on a previously used observational measure of co-regulation for school-aged children (Silkenbeumer et al., 2018).

## Understanding co-regulation

As defined by the Applied Developmental Model of Self-regulation (Murray et al., 2019), co-regulation involves three pillars: a warm and responsive relationship, a safe and structured environment, and the consistent support and reinforcement of emotion regulation skills (Murray et al., 2019). Co-regulation is facilitated through secure and caring relationships in safe and predictable environments. Consistent with a trauma-informed approach, a safe and empowering environment is needed for responsive interactions to take place whereby emotions can be supported, coached, and modeled effectively (Murray et al., 2019). Therefore, co-regulation can be conceptualized as the trauma-informed lens of learning, interpreting and expressing emotions (i.e., emotional socialization; Pollak and Thoits, 1989) – a frame shift that prioritizes emotional responsiveness and interpersonal

connections to facilitate emotional safety, growth, and self-regulation skills. The role of educators' own stress, emotion self-regulation and mental health has been explored in the classroom context (Jennings et al., 2019; Frenzel et al., 2021). Specifically, recent conceptual work by Valiente et al. (2020) has focused on understanding the role that teachers and classroom contexts have on emotion regulation. They suggest the relevance of both teachers' relationship quality with their students as well as their reactions to students' emotional displays. Importantly this is influenced by and in turn creates the larger classroom climate.

The significance of emotion co-regulation in childhood extends beyond emotional learning and development. For instance, effective emotion co-regulation has been shown to build self-efficacy in children, as the supportive process enhances a child's feeling of security to try new things and make mistakes (Silkenbeumer et al., 2018; Murray et al., 2019). Further, emotion co-regulation can exponentially increase a child's ability to self-regulate and develop self-confidence which facilitates the forming of healthy relationships with others (Murray et al., 2019). Additional research has shown a link between consistent, supportive emotion co-regulation and adaptive social and academic development throughout childhood (Denham et al., 2012; Alzahrani et al., 2019; Hoffmann et al., 2020). Therefore, we argue it is of critical importance to support educators' self-efficacy for emotion co-regulation as it has implications for both individual and classroom behavioral and academic processes, well-being, and student outcomes. This is particularly true for students for whom their parents may not be able to provide emotion co-regulation support, or for students for whom the disproportionate exposure to traumatic events disrupts their ability to manage emotions and/or form strong attachments to emotion socializers (Cabecinha-Alati et al., 2022).

## Educator support for emotion co-regulation

While research demonstrates the importance of emotion co-regulation on overall social and emotional child well-being, there is scarce development of school-based interventions targeting co-regulation skills. As evident by a systematic review of 312 school interventions focused on promoting self-regulation, only one-third of the interventions for elementary school age students incorporated a co-regulation component (Murray et al., 2019). Emotion co-regulation components were even less used in interventions focused on middle and high school students due to competing developmental foci, such as cognitive techniques and general life skills training (Murray et al., 2016). Emotion co-regulation, as defined by the study, was a focus on warmth, responsivity, and scaffolding. As these constructs were present in 100% of interventions focused on ages birth-2, it represents an understudied aspect of emotion regulation interventions in primary and secondary school settings.

Outside of direct interventions with children and families, an additional factor that may support emotion co-regulation is educator knowledge and skills. Besides parents, educators arguably have the most opportunity as well as the best relational position to support childrens' emotion regulation (Valiente et al., 2020). However, professional issues related to teaching and school systems – for example, high student-to-teacher ratios and overall job stress – can significantly impact an educator's ability to focus on and promote

emotion co-regulation in the classroom (Denham et al., 2012; Hoffmann et al., 2020). When teachers are the target of emotion co-regulation interventions with their students, they show improvement not only in overall classroom climate but also in their personal self-regulation skills (Valiente et al., 2020). Unfortunately, a large number of teachers report minimal or no training on emotion co-regulation during their teacher preparation programs (Marlow and Inman, 2002; Garner, 2010; Reinke et al., 2011; Hoffmann et al., 2020). However, there has been a growing interest in trauma-informed approaches and cultural responsiveness in education (Melendez Guevara et al., 2021). As these approaches in education support relationship building and perspective-taking they may positively impact educators' ability to co-regulate student emotions (Brunzell et al., 2021). Trauma-informed and culture responsivity trainings may represent an important practice that can support adversity-informed learning contexts through their impact on co-regulation (Panlilio et al., 2023). For example, previous work has found that training in such frameworks have the potential to counter the effect of trauma and stress and make teachers feel more efficacious in understanding and dealing with the negative impact of traumatic exposure of students (Dorado et al., 2016; Maynard et al., 2019).

## This study

Considering the critical role of emotion co-regulation within the school context, particularly for students with histories of traumatic exposure, the present study aims to develop and explore initial psychometric properties for a measure of educators' self-efficacy for co-regulation. To measure emotion regulation, the research team created a scale that mapped onto relevant theory of emotion regulation in the classroom (Denham et al., 2012; Murray et al., 2019). Specifically, questions were asked to reflect self-efficacy of reappraisal and soothing through coaching and modeling. Scores on this scale were compared with educators' self-efficacy for classroom management, student engagement, school climate, and working with students' parents (Tschannen-Moran and Hoy, 2001; Bandura, undated). We also examined differences in mean scores by educator characteristics including gender, professional experience, and role in the school. Additionally, we modeled the role of previous training in trauma-informed approaches and culturally responsive strategies as related to self-efficacy for emotion co-regulation. Importantly, this will allow for an understanding of the modifiability of self-efficacy for emotion co-regulation.

## Methods

### Participants

Data were from a school-based sample of educators including teachers, administrators, and other supportive staff (i.e., office personnel and student services staff) in Arizona, a southwestern state in the United States. Key demographic characteristics of our sample ($n = 86$) included more females (87%) than males (12%) or other non-binary categorization (1%). Most participants reported they had experience in their current role for 5 years or less (47.8%); however, a number of participants indicated they had 20 years or

more experience in their role (24.6%). Most participants that identified their role were teachers (39%), including special education teachers (5.7%), student services staff (27.1%), and administrators (14.3%). Regarding training, 73% of participants reported receiving training in a trauma-informed approach and 64% in culturally responsiveness. Trauma informed in the survey was defined for participants as an approach that realizes the impact of adversity on behavior and focuses on creating safe and welcoming environments that support resilience (Harris and Fallot, 2001). Cultural responsiveness was defined as a strategy involving self-reflection and adoption of practices that are representative of the cultural knowledge, prior experiences, and engagement styles of the students and parents (Ladson-Billings, 1995). A full break down of key demographic characteristics are included in Table 1.

## Procedure

We used a non-probability sampling strategy to recruit participants to complete an electronic survey. Specifically, we solicited

TABLE 1 Key demographic characteristics of the sample ($N = 86$).

| Domain | Outcome |
|---|---|
| Gender, $n$ (%) | |
| Male | 8 (11.3%) |
| Female | 61 (87.1%) |
| Other | 1 (1.4%) |
| Missing | 16 (18.6%) |
| Experience in years, $n$ (%) | |
| 5 years or less | 33 (47.8%) |
| 6 to 10 years | 12 (17.3%) |
| 11 to 20 | 7 (10.0%) |
| 20 years or more | 17 (24.6%) |
| Missing | 17 (19.8%) |
| Role in school, $n$ (%) | |
| Administrator | 10 (14.3%) |
| Teacher | 23 (32.9%) |
| Office staff | 1 (1.4%) |
| Special Education Teacher | 4 (5.7%) |
| Student services | 19 (27.1%) |
| Other | 13 (18.6) |
| Missing | 16 (18.6) |
| Trauma-informed training, $n$ (%) | |
| Yes | 57 (73.1%) |
| No | 21 (26.9%) |
| Missing | 8 (9.3%) |
| Cultural responsiveness training, $n$ (%) | |
| Yes | 45 (64.3%) |
| No | 25 (35.7%) |
| Missing | 16 (18.6) |

Student services includes school psychologists, social workers, and counselors.

assistance from local education partners to post and advertise the survey through their relevant electronic listservs. Prior to participants completing the survey, they had the opportunity to review a brief description of the purpose of our study, as well as read and complete informed consent electronically. Participants were entered in a draw for 1 of 10 $100 electronic gift cards to compensate for their time and participation. Survey development was guided by members of the research team, co-investigators of this project and informed by relevant scholarly work on the constructs of interest (Denham et al., 2012; Murray et al., 2019). Our study was approved by the Arizona State University Institutional Review Board.

## Measures

### Educator self-efficacy for emotion co-regulation

Six items measuring emotion co-regulation were drafted that reflected both different strategies (i.e., reappraisal, soothing) as well as different levels of support (i.e., coaching or modeling) based on a previously used observational measure of co-regulation (Silkenbeumer et al., 2018). The question style and response patterns were mapped onto widely used measures of educator self-efficacy and based off the three pillars of the Applied Developmental Model of Self-regulation (Murray et al., 2019). Specifically question stems asked perceptions of ability with a nine-point Likert type response scale (1 = *nothing*, 5 = *some influence*, and 9 = *a great deal*). Items were: "*To what extend can you coach students on the appropriate response to their emotions?,*" "*How well can you talk about emotions with students?,*" "*How much can you do to soothe or distract students from emotions?,*" "*To what extent can you remain emotionally positive in the classroom despite challenges?,*" and "*How much can you do to support students in coping with their own emotions?.*" The final factor structure included five items; due to redundancy, one item was omitted from the 5-factor structure (i.e., *How well can you support students in managing their own emotions?*"). Items were summed to calculate a score of educator self-efficacy for co-regulation ($\alpha = 0.85$).

### Self-efficacy for classroom management and school climate

The Ohio State University Teacher Sense of Efficacy Scale (Tschannen-Moran and Hoy, 2001) was used to assess: (1) self-efficacy for classroom management ($\alpha = 0.88$; "*How well can you establish a classroom management system with each group of students?*"), and (2) self-efficacy regarding student engagement ($\alpha = 0.84$; "*How much can you do to help students value learning?*"). This measure included a total of 8 items measured on a 9-point Likert type scale (1 = *nothing*, 5 = *some influence*, and 9 = *a great deal*). Banduras' Teacher Self-Efficacy Scale (undated) was also utilized to assess self-efficacy to improve school climate (7 items), and self-efficacy in working with students' parents (3 items). Sample items included "*How much can you do to make school a safe place?*" and "*How much can you do to get parents become involved in school activities?*" Items were measured on a 9-point Likert type scale (1 = *nothing*, 5 = *some influence*, and 9 = *a great deal*). For each of these self-efficacy scales items were summed ($\alpha = 0.88$ for school climate; $\alpha = 0.82$ for self-efficacy working with parents).

### Sociodemographic characteristics

Educators reported on their identified gender (Females = 0, Males = 1), professional experience (e.g., 5 years or less, more than 5 years), and role in school (e.g., administrator, educator, office staff, and other).

### Professional development

Participants were asked to indicate in separate questions if they had received relevant training on trauma-informed approaches and/ or cultural responsiveness (No = 0, Yes = 1).

## Data analysis

Preliminary analysis for examining distributional properties of the study variables were conducted using SPSS 25. Correlations between emotion co-regulation self-efficacy and all other measures of self-efficacy were carefully examined to determine convergent validity of our measure. We used exploratory factor analysis (EFA; Henson and Roberts, 2006) to conduct the initial examination of items in the emotion co-regulation scale, we retained 5 of the 6 items based on factor leading and correlations. Given the relevance of some key descriptive indicators of the sample (Klassen and Chiu, 2010) we explored differences by educator's characteristics that might influence their self-efficacy around emotion co-regulation (i.e., gender, years of experience and professional role) using sample $t$ test and analysis of variance (ANOVA) respectively. In addition, we added these indicators in our regression model as covariates. Mplus 8.2 was used to employ both the confirmatory factor analysis of the self-efficacy for emotion co-regulation, as well as our regression model examining the impact of relevant training on educators' self-efficacy for emotion co-regulation. All variables were centered at the mean prior to running analyses. In order to evaluate adequate model fit, we used different fit statistic indicators including chi-square, root means square error of approximation (values of 0.08 or lower; RMSEA; Steiger, 1990), standardized root mean square residual (value of 0.05 or lower; SRMR; Bentler, 1990), and the comparative fit index (values of 0.95; CFI; Bentler, 1990).

## Results

The confirmatory factor analysis indicated a good fit for the data ($\chi^2$ (5) = 7.06 $p > 0.01$, RMSEA = 0.08 [0.000, 0.195], SRMR = 0.03, CFI = 0.98; See Figure 1). Each of the self-efficacy for emotion co-regulation items loaded on one factor with all estimates above 0.40 which is considered to be meaningful (Floyd and Widaman, 1995). Correlations between items ranged from weak to strong, fluctuating from 0.26–0.81. This indicated that the items could be used to represent one construct.

The mean self-efficacy for emotion co-regulation score was 7.21 (SD = 1.18), with a range between 3–9. The scale showed good reliability ($\alpha = 0.86$) and demonstrated construct (e.g., convergent) validity, with correlations between 0.51 and 0.70 with the other teacher self-efficacy scales (see Table 2). While ANOVA and $t$ test analyses revealed that classroom teachers as compared to all other groups reported lower values on co-regulation self-efficacy $M = 6.87$ (1.1) the differences on co-regulation self-efficacy by gender, length of

professional experience, and role were non-significant (see Table 3). These indicated that the items were measuring aspects of the same construct, that self-efficacy for emotion co-regulation related to similar constructs in unique but expected ways, and that differences could be explained by some educator characteristics.

In the regression model (see Figure 2), greater than 5 years of experience was significantly associated with improved self-efficacy for emotion co-regulation ($B=0.217$ (0.09), $p<0.05$), but gender and professional role were not significantly associated. Training in cultural responsiveness was significantly associated with improved self-efficacy

for emotion co-regulation ($B=0.43$ (0.11), $p<0.000$) while controlling for the effect of gender, role, and experience. Having training in trauma-informed approaches was not significantly associated with self-efficacy for emotion co-regulation (see Figure 2). This indicates that self-efficacy for emotion co-regulation could be influenced by experience and culturally responsiveness training.

## Discussion

The present study aimed to develop and preliminary assess a measure for educators' self-efficacy for emotion co-regulation. Although there are numerous existing measures to assess educator's self-efficacy, most of these are designed to assess self-efficacy with respect to teaching practices and classroom behaviors (e.g., Tschannen-Moran and Hoy, 2001), or measure self-efficacy and emotion regulation independently (Fathi and Derakhshan, 2019). Given the saliency of emotion regulation for positive child development, it is critical that research focuses on educator's self-efficacy to help regulate student's emotions in schools, as such this competency can support overall student well-being, as well as educational outcomes [see Valiente et al. (2020) for a conceptual model]. Additionally, emotion co-regulation may be an important tool for supporting youth who have been exposed to traumatic events, and for whom emotion regulation challenges are often present. While preliminary, the results of the study provide support of a measure of educators' self-efficacy for emotion co-regulation.

Specifically, results suggest that the 5-item measure reliably assessed self-efficacy for emotion co-regulation as evidenced by high internal consistency despite representing distinct components of emotion co-regulation (e.g., reappraisal, soothing, and coaching) as discussed in theory (e.g., Silkenbeumer et al., 2018). This study also provided evidence of convergent validity of this measure, as indicated by the positive association between self-efficacy for emotion co-regulation and all other self-efficacy measures used in this study. Further, the measure demonstrated differences by experience in the regression analysis such that educators with 5 years or less experience in their profession demonstrated significantly lower self-efficacy for emotion co-regulation as did those who had been in their profession for more than 5 years. This finding is similar to other studies which
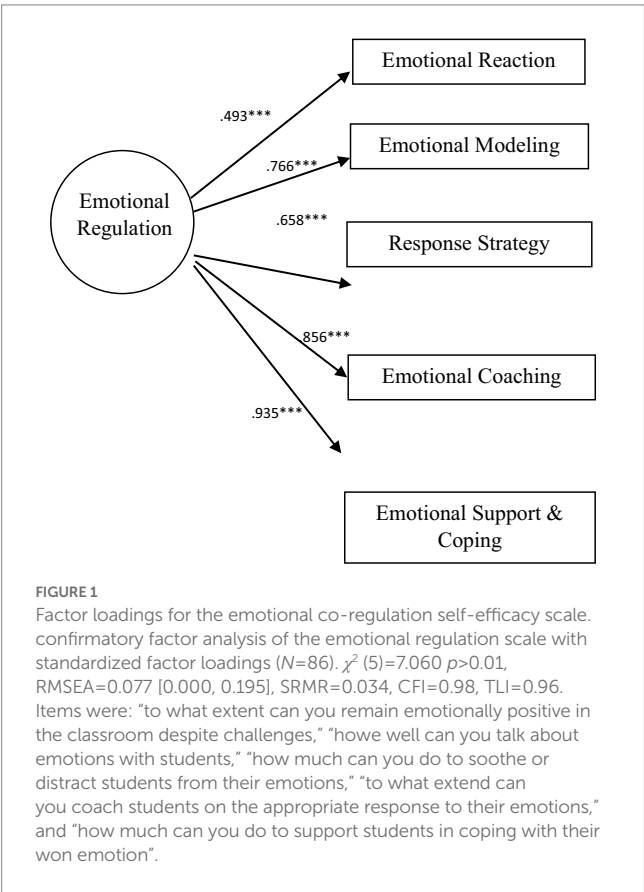


**FIGURE 1**
Factor loadings for the emotional co-regulation self-efficacy scale. confirmatory factor analysis of the emotional regulation scale with standardized factor loadings ($N=86$). $\chi^2$ (5)=7.060 $p>0.01$, RMSEA=0.077 [0.000, 0.195], SRMR=0.034, CFI=0.98, TLI=0.96. Items were: "to what extent can you remain emotionally positive in the classroom despite challenges," "howe well can you talk about emotions with students," "how much can you do to soothe or distract students from their emotions," "to what extend can you coach students on the appropriate response to their emotions," and "how much can you do to support students in coping with their won emotion".

**TABLE 2  Zero order correlations of study variables.**

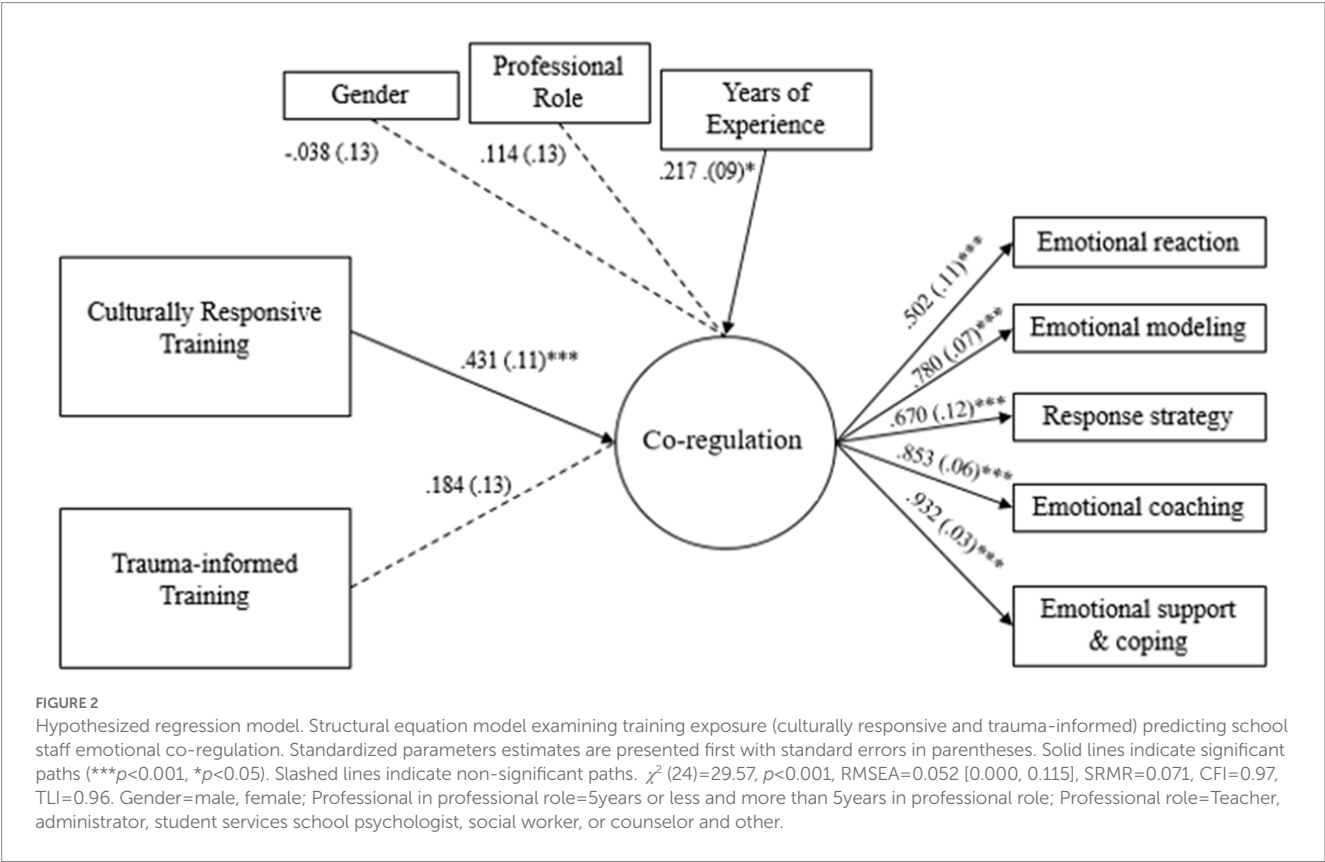|  | M (SD) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. TI train |  |  |  |  |  |  |  |  |  |  |  |
| 2. CR train |  | 0.339** |  |  |  |  |  |  |  |  |  |
| 3. Gender |  | 0.125 | −0.084 |  |  |  |  |  |  |  |  |
| 4. Experience | 9.07 (7.16) | −0.246* | −0.228 | −0.021 |  |  |  |  |  |  |  |
| 5. Role |  | 0.298* | 0.342** | 0.098 | −0.307* |  |  |  |  |  |  |
| 6. SE BEH | 7.30 (1.29) | −0.002 | 0.082 | −0.164 | 0.106 | −0.177 |  |  |  |  |  |
| 7. SE LE | 6.74 (1.23) | 0.203 | 0.299* | −0.071 | 0.069 | 0.185 | 0.578** |  |  |  |  |
| 8. SE parent | 6.18 (1.52) | 0.058 | 0.218 | −0.076 | 0.103 | 0.026 | 0.441** | 0.762** |  |  |  |
| 9. SE | 6.76 (1.39) | 0.032 | 0.189 | −0.201 | 0.165 | −0.043 | 0.586** | 0.744** | 0.768** |  |  |
| 10. EmoReg | 7.21 (1.18) | 0.227 | 0.458** | −0.062 | 0.085 | 0.195 | 0.436** | 0.685** | 0.532** | 0.550** |  |

TI Train, trauma-informed training; CR Train, culturally responsive training; Experience, years of experience; Role, professional role; SE BEH, self-efficacy behavioral; SE LE, Self-efficacy learning; SE parent, self-efficacy parents; SE, self-efficacy; EmoReg, emotional regulation. *Correlation is significant at the 0.05 Level. **Correlation is significant at the 0.01 Level.

TABLE 3 Mean differences for co-regulation self-efficacy by gender, length of experience, and role (*N*=86).

| | Male M (SD) | Female M (SD) | Mean comparison |
|---|---|---|---|
| Co-regulation Self-efficacy | 7.28 (1.1) | 6.93 (1.3) | $t(67) = 0.43$, $p = 0.884$ |
| | Less than 5 years M (SD) | More than 5 years M (SD) | |
| Co-regulation self-efficacy | 7.22 (1.1) | 7.21 (1.2) | $t(67) = 0.49$, $p = 0.661$ |

| | Teacher M (SD) | Administrator M (SD) | Student services M (SD) | Other M (SD) | |
|---|---|---|---|---|---|
| Co-regulation Self-efficacy | 6.87 (1.1) | 7.42 (1.0) | 7.33 (1.4) | 7.56 (0.92) | $F(3,66) = 1.38$, $p = 0.254$ |

The non-binary case for gender was excluded from this analysis. Student services include school psychologists, social workers, and counselor.



FIGURE 2
Hypothesized regression model. Structural equation model examining training exposure (culturally responsive and trauma-informed) predicting school staff emotional co-regulation. Standardized parameters estimates are presented first with standard errors in parentheses. Solid lines indicate significant paths (***$p<0.001$, *$p<0.05$). Slashed lines indicate non-significant paths. $\chi^2(24)=29.57$, $p<0.001$, RMSEA=0.052 [0.000, 0.115], SRMR=0.071, CFI=0.97, TLI=0.96. Gender=male, female; Professional in professional role=5years or less and more than 5years in professional role; Professional role=Teacher, administrator, student services school psychologist, social worker, or counselor and other.

indicate a curvilinear relationship between teaching self-efficacy and years of experience, with an increase into mid-career that falls afterwards (Klassen and Chiu, 2010).

While educators in our sample overall reported high levels of self-efficacy for co-regulating students' emotions, reporting receiving training in cultural responsiveness was associated with improved perceptions of co-regulation ability. We think this may be associated to teachers' increased confidence in building trusting relationships with their students, which is consistent with culturally responsive teaching philosophies (Brunzell et al., 2021). In addition, this may support the importance of integrating culturally responsive approaches to improve relationships between educators, students, and families. Potentially, these trainings may provide educators with the further tools to interact more personally with students or indicate the

presence of school-level support of a more personalized approach to education (Bottiani et al., 2018). However, and unexpectedly, reporting receiving trauma-informed training was not associated with educators' self-efficacy for emotion co-regulation. This may be related to the fact that trauma-informed professional development opportunities are often restricted to training on the basics of trauma and its broad impact (Melendez Guevara et al., 2021). Specifically, previous research surveying educators on their thoughts and perceptions regarding trauma-informed training found that a limitation of training within educational settings lays in the lack of elaboration, specificity, and extrapolation of trauma-informed professional development opportunities (Melendez Guevara et al., 2021). Further, while evidence exists to support individual interventions for students exposed to traumatic events (i.e.,

trauma-specific services), more research is needed on diverse and sustainable approaches to addressing trauma in school (i.e., trauma-informed care) (Maynard et al., 2019). Preliminary research exploring multi-tiered approaches to trauma-informed care, which include trauma specific services, have shown improvement in teacher knowledge and self-efficacy, and impact on students mental, emotional, and behavioral health (Berger, 2019). Combined this literature suggests the need to move training in trauma-informed schools beyond awareness to support skill development and a more holistic understanding of the compounded and multifaceted impact of traumatic exposure.

## Limitations

Although the results provided strong preliminary support for the psychometric properties of a newly developed measure of educator's self-efficacy for emotion co-regulation, there are some limitations of this research that must be noted. Foremost, this is a preliminary study with a small sample size ($n = 86$) and therefore, more rigorous methods (e.g., item response theory) using larger and more generalizable samples are needed. We did not inquire about educator grade level; however, this is important as strategies to support emotion co-regulation have the potential to vary contextually and developmentally. Thus, future research should examine aims across various grade levels as well as understand the influence more broadly of student, staff, classroom, and school characteristics. This study relied on educator's self-report of trainings in trauma-informed approaches and cultural-responsiveness, therefore, we did not inquire further about the content of such trainings. Relatedly, this measure was administered only once in the present study, thus, further research will be necessary to better stablish the sensitivity of this measure to fluctuations of educators' competencies and training overtime. Importantly this includes assessing how the nature, intensity and specific content in trauma-informed and culturally-responsiveness trainings impact educator self-efficacy for co-regulation. This may also provide further insight into future measure adaptations. Finally, predictive validity of this measure relative to students' socioemotional outcomes is needed to fully support its value as a construct.

## Implications for the field

Educators' self-efficacy for co-regulating their students' emotions is an important construct, particularly as schools move toward adopting trauma-informed and culturally responsive models as best practices. Both of these frameworks rely on sociocultural responsive approaches of interacting with students, which prioritize understanding and acting in reflection on the social, cultural, contextual, historical and individual needs (Meléndez Guevara, 2022). Thus in order to evaluate the effectiveness of these trainings, an understanding of the mechanisms through which they impact teacher behavior and how that impacts student outcomes is needed. We believe that emotion co-regulation is an important process that has been under assessed in primary and secondary settings (Murray et al., 2016). By supporting educator professional development in the varying components of co-regulation (e.g., reaction, modeling,

strategy, coaching, support, and coping) we can shift attitudes and beliefs into school climate change.

In sum, the current study provided preliminary evidence supporting the psychometric properties on a measure for emotion co-regulation for educators. Preliminary findings support the measure to be reliable and valid, with construct validity supported by positive associations to other theoretically applicable constructs, as well as educator and school characteristics. This measure has the potential utility to inform shortcomings in educators training and therefore, may be useful in supporting students' positive socioemotional development, particularly for those at higher and disproportionate risk to trauma exposure.

## Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

## Ethics statement

The studies involving human participants were reviewed and approved by Arizona State Institutional Review Board. The patients/participants provided their written informed consent to participate in this study.

## Author contributions

SL conceptualized the study. AM ran the analyses. AP collected the data. SL, AM, and AP participated in writing and reviewing the manuscript. All authors contributed to the article and approved the submitted version.

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## Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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