TAMSAAL
ISSN Print: 3007-5939
ISSN Online: 3007-5947
Volume 4, Number 9, 2026, Pages 132 – 155
Journal Home Page
https://tamsaal.pk/index.php/tamsaal/index

Supporting Children Experiencing Early Trauma: A Comparative Study of Teachers' Awareness, Preparedness, and Classroom Practices in Public and Private Schools of Lahore, Pakistan

Sana Abdullah[1]

[1]*Master of Education, University of the People MPhil in Economics, Government College University, Lahore, Pakistan, Email: sanasaleemsh@gmail.com*

ARTICLE INFO

Article History:

Received:	*July*	*16, 2026*
Revised:	*August*	*27, 2026*
Accepted:	*September*	*04, 2026*
Available Online:	*September*	*12, 2026*

Keywords:

Adverse Childhood Experiences, Trauma-Informed Education, Teacher Knowledge, Teacher Readiness, Classroom Practices, Public Schools, Private Schools, Pakistan.

Corresponding Author:
Sana Abdullah
Email:
sanasaleemsh@gmail.com

DOI: *https://doi.org/10.59075/tamsaal.v4i9.182*

ABSTRACT

Early trauma, including adverse childhood experiences (ACEs), negatively affects children's cognitive, emotional, behavioral, and academic development, creating challenges for effective classroom learning. Although trauma-informed education has gained increasing attention internationally, limited empirical evidence exists regarding teachers' awareness, preparedness, and classroom practices for supporting traumatized children in Pakistan, particularly across public and private school settings. Addressing this gap, the present study examined teachers' awareness, preparedness, and trauma-informed classroom practices and compared these dimensions between public and private schools in Lahore. A quantitative cross-sectional survey design was adopted because it enabled the systematic measurement and comparison of teachers' perceptions and practices across educational sectors and facilitated statistical examination of relationships among the study variables. Data were collected from 100 teachers working in 12 private and 7 public schools using a 19-item structured questionnaire with satisfactory internal consistency (Cronbach's α = 0.80–0.89). Data were analyzed using descriptive statistics, independent-samples t-tests, Pearson correlation, and multiple regression in SPSS. The findings indicated high levels of teachers' awareness ($M = 3.65$, $SD = 0.69$) and classroom practices ($M = 3.58$, $SD = 0.66$), moderate preparedness ($M = 3.45$, $SD = 0.73$), and positive perceptions of student outcomes ($M = 3.70$, $SD = 0.62$). Private school teachers reported significantly higher awareness ($p = .036$), preparedness ($p = .005$), and trauma-informed classroom practices ($p = .018$) than public school teachers. All variables were positively correlated, with preparedness showing the strongest association with classroom practices ($r = .69$, $p < .01$). Multiple regression explained 42% of the variance in perceived student outcomes ($R^2 = .42$, $p < .001$), with preparedness emerging as the strongest predictor, followed by classroom practices and awareness. The study highlights the need for systematic trauma-informed teacher training, institutional support, and educational policies that strengthen teachers' capacity to support children affected by early trauma and improve student well-being and learning outcomes.

Introduction

The impact of early trauma and adverse childhood experiences (ACE's) on children's educational outcomes, mental health and health outcomes has gained extensive attention and is increasingly understood as a profound influence. ACEs refers to any experience of physical, emotional and sexual abuse; neglect; domestic violence; parental separation; drug and alcohol misuse in the home; poverty; community violence (Hughes et al., 2017). Very compelling evidence from a large body of research both nationally and internationally has shown that ACE's have a significant negative impact on the development of the brain, emotional regulation, executive functioning, memory; attention and relations with others and consequently a child's capacity to learn (Felitti et al., 1998; Hughes et al., 2017; Berger et al., 2021).

There is substantial neurobiological evidence that chronic exposure to toxic stress during childhood can disrupt the development of neural networks responsible for cognitive functioning, emotional regulation, and executive control. Such disruptions increase children's susceptibility to behavioral difficulties, poor emotional regulation, depression, anxiety, absenteeism, reduced academic engagement, and lower educational achievement (Chafouleas et al., 2016; Perfect et al., 2016; Shonkoff et al., 2021). In response to these challenges, education systems across many countries have increasingly adopted trauma-sensitive approaches that recognize the pervasive effects of adverse childhood experiences (ACEs) on learning and development. These approaches aim to create supportive learning environments that foster students' emotional well-being, resilience, and academic success by equipping schools and educators with strategies to recognize and respond appropriately to trauma-related behaviors.

Within trauma-sensitive education, teachers occupy a central role because of their continuous interaction with students and their ability to observe behavioral, emotional, and academic indicators of trauma. Their knowledge of childhood trauma, preparedness to respond effectively, and implementation of trauma-informed classroom practices are essential for promoting students' resilience, engagement, and positive developmental outcomes (Alisic, 2012; Berger et al., 2021). Teachers who receive appropriate professional preparation are more likely to establish safe and trusting classroom environments, employ positive behavior management strategies, and facilitate referrals to appropriate mental health and support services when necessary (Brunzell et al., 2019). Despite the growing international recognition of trauma-informed education, many teachers continue to receive limited pre-service and in-service preparation related to childhood trauma. Consequently, they often lack the confidence and practical skills needed to identify trauma-related behavior's and implement effective classroom interventions (Howard, 2019; Rodger et al., 2020).

The need for trauma-informed education is particularly significant in Pakistan, where educational institutions face considerable structural and resource constraints. Public schools commonly experience overcrowded classrooms, limited instructional resources, and inadequate counselling and mental health services, while private schools generally possess comparatively better infrastructure and greater access to professional development opportunities. Nevertheless, trauma-informed educational practices remain insufficiently developed in both sectors, and systematic training on childhood trauma is rarely incorporated into teacher education programmed (Ahmad et al., 2025; Mustafa et al., 2025). Furthermore, empirical evidence examining teachers' awareness, preparedness, and classroom practices for supporting children

experiencing early trauma within the Pakistani educational context remains limited, particularly in comparative studies involving public and private schools. Given these contextual differences and the existing knowledge gap, examining teachers' awareness, preparedness, and trauma-informed classroom practices across both school sectors is essential. Such evidence can inform educational policy, strengthen teacher education programmed, and guide the development of school-based mental health initiatives that promote trauma-sensitive learning environments and improve educational outcomes for children affected by early trauma.

Pakistani Context

While trauma-informed pedagogy has garnered widespread international acknowledgment over the past ten years, its use in Pakistan is still relatively uncharted. The socio-political situation in Pakistan provides a stress-inducing environment in which many ACEs are prevalent such as poverty, child labor, domestic violence, separation and divorce, natural disasters, displacement, terrorism, community violence. UNICEF Pakistan (2023) reports that Pakistan's proportion of children on the whole is among the world's most vulnerable by a range of indicators that hinder their educational engagement, psychological health and overall developments; these can be reflected in the schools through poor grades, deviant behaviours, absences, emotional problems and peer relationship problems.

In recent years, trauma's effects on children's education have been a prominent topic in Pakistani research as well. Ahmad et al. (2025) suggested that trauma's toll on students' cognitive abilities, affect regulation, classroom involvement, and academic performance makes trauma-informed pedagogy essential in Pakistani schools. Similarly, Mahmud (2022) found that numerous Pakistani teachers experienced firsthand trauma-related emotional and behavioral issues among their students while knowing little of the signs of trauma or how to act accordingly in the classroom. As a result, trauma symptoms among students are commonly viewed as discipline or motivation issues.

Much of the challenges of trauma-informed education in Pakistani context are rooted in teacher readiness. Most of the current teacher education programs centrally emphasize on transmission of subject matter content, classroom management, and student assessment practice rather than children's mental health, crisis and trauma sensitive pedagogies. Mustafa et al. (2025) found that although teachers said they understand the value of helping learners navigate their emotions, they felt under-prepared, under-supported and lack confidence to deal with trauma impacted learners in the class. A lack of this capacity to detect trauma symptoms and create psychologically safe learning spaces, limits teachers' efficacy with implementing classroom-based intervention strategies.

At the policy level, relevant initiatives in Pakistan have focused on promoting quality of education and child protection. National Education Policy (2017 2025) focuses on inclusive access to quality education, inclusion of children and adults with disabilities into the learning space, the promotion of children's well-being and professional development of teachers (Government of Pakistan, 2017). Similarly, province level education sector plans (e.g., the Punjab Education Sector Plan) have emphasized the importance of inclusive education and quality improvement. Moreover, due to strengthened legislation (e.g., the establishment of the National Commission on the Rights of Child (NCRC) and provincial child protection authorities), legislations protecting the rights of children and child-well-being have been

effectively enhanced. However, national and subnational policies do not yet offer much guidance about trauma-informed practices at the level of educational institutions, teachers' skills in school-based screening and intervention for childhood trauma and the availability of psychological support structures within schools. Trauma-informed education does not yet feature prominently in national teacher education standards, curriculum frameworks or school improvement policies.

However, international agencies have also called for development of school-based mental health programs in Pakistan as a protective and healing space where school staff can promote resilience, positive adjustment and recovery for children. UNICEF Pakistan (2023) states 'School should be a protective environment that enhances the resilience, emotional healing and recovery of children'. Likewise, the WHO is calling for integrated approach to mental health promotion through improved mental health literacy of teachers; using education programs to promote emotional health and to prevent and identify mental health problems early; and referral pathways for additional support (WHO, 2021). However, programs are neither implemented nor delivered in a systematic manner across provinces, cities and schools in Pakistan.

Institutional disparities between private and public institutions will also have an impact on how well trauma-informed pedagogy and practices can be implemented by teachers. Public institution usually has overcrowded classes and high student-teacher ratios, which result in a lack of funding, inadequate counselling services and limited access to in-service professional development offerings. As a result, teachers in public systems are less equipped and less enabled to deliver appropriate individual interventions to students in trauma. Private institutions tend to have smaller class sizes, more supports from administrative staff and parents, and greater access to professional development opportunities. A handful of large private school programs have begun to incorporate child counselling and mental health services, along with wellness initiatives and school psychologists, but they are specific to individual institutions and are not paired with regular, systematic trauma-informed professional development sessions for teachers. Large gaps in teacher preparedness and institutional support still exist across Pakistan.

Although consciousness of childhood trauma has been taken up in the education and psychological research in the past decade, very little empirical research has been conducted with Pakistani teachers' knowledge, preparedness and trauma-informed classroom practices. Past research has focused extensively on the psychological health and educational experiences of students, with no empirical studies pertaining to teachers' awareness, preparedness and trauma-informed practices in classrooms. There is a remarkable scarcity of comparative studies of public versus private schools. And there is relatively little empirical evidence on whether the school variables impact Pakistani teachers' awareness, preparedness, classroom practices and classroom student outcomes.

These loopholes in research and school practice thus serve as major shortcomings. Without the benefit of context-specific empirical evidence, the to-be-designed teacher education programmes, trauma-informed policies, and school-based mental health services will all remain inadequately designed and ineffective. Addressing this key gap in knowledge, the current study investigates teachers' knowledge and preparedness, classroom practices, and perceived outcomes for children in public and private schools in Lahore, Pakistan. This contrast of the two educational sectors provides an initial step for research to facilitate implementation in the context

of teacher professional development, policy change, and trauma-informed educational practices to improve children's educational outcomes.

Problem Statement

Childhood trauma and adverse childhood experiences (ACEs) are commonly regarded as significant issues for public health and education because of the consequences of early trauma exposure, including effects on children's cognition, emotional regulation and behavior, educational achievement, and social adjustment (Felitti et al., 1998; Shonkoff et al., 2012). International research indicates that trauma-exposed children in any setting or context struggle with attention, emotion regulation, classroom participation, peer interactions, and academic achievement, necessitating trauma-informed and supportive educational environments (Brunzell et al., 2016; Berger, 2019). Accordingly, trauma-informed education has been identified as an important component of educational policy and teacher CPD across the United States, Australia, Canada, and United Kingdom (SAMHSA, 2014; UNESCO, 2021).

Teachers are important in term of detecting the signs of trauma, appropriately responding to student's emotional and behavioral needs, and establishing safe and supportive classroom environments. Teachers' knowledge of trauma, their ability to use specific trauma-sensitive techniques, and their involvement of relevant classroom practices are crucial for effective trauma-informed education (Alisic, 2012; Dorado et al., 2016). Research data from developed countries show that teachers are more confident, sustain better classroom management and provide better support to traumatized students after trauma-informed training (Brunzell et al., 2018; Christian-Brandt et al., 2020).

In spite of increasing international focus on trauma-informed school practices very few empirical studies have been conducted in Pakistan. Available educational research in Pakistan has predominantly been centered on learner achievement, inclusive education, classroom management and teacher effectiveness and very little is known about teachers' knowledge of childhood trauma, their preparedness and competency to teach trauma-affected learners or in implementing trauma-informed classroom practices. Moreover, to date no comprehensive comparative research has been carried out between public and private school teachers on any of these indicators. This aspect still remains largely unexplored in the Pakistani context, especially when there are stark differences between the two sectors with regard to the opportunities that are made available to teachers for their professional growth and development, access to institutional support structures, availability of counselling services and other resources.

Without empirical evidence on teacher awareness, readiness, and classroom practices, policymakers will be unable to formulate trauma-informed school policies and professional development programmed based on evidence within the Pakistani context. Teacher education institutions and the school administration will not be able to identify gaps in capacity building or formulate programs that effectively mitigate the effects of trauma on children if evidence from the field is absent. There is also a lack of comparative evidence between teachers in public vs private schools that can inform how institutional differences shape the practitioner and what specific support teachers need to deal effectively with trauma.

Hence, this study will contribute to filling these gaps by exploring teachers' knowledge of childhood trauma and ACEs, their readiness to support trauma-affected children, the trauma-

informed classroom practices they exhibit and their views on student outcomes in public and private schools of Lahore, Pakistan. The context-specific evidence collected from this study will inform policy formulation on trauma-informed education, inform teacher training and professional development programs and enhance support systems for vulnerable children in Pakistan.

Research Objectives

1. To examine teachers' awareness of childhood trauma and adverse childhood experiences (ACEs).
2. To assess teachers' preparedness to support children experiencing early trauma.
3. To investigate teachers' trauma-informed classroom practices for supporting children experiencing early trauma.
4. To compare teachers' awareness, preparedness, and trauma-informed classroom practices between public and private schools in Lahore, Pakistan.
5. To examine the relationships among teachers' awareness, preparedness, trauma-informed classroom practices, and perceived student outcomes.
6. To determine the extent to which teachers' awareness, preparedness, and trauma-informed classroom practices predict perceived student outcomes.

Research Questions

1. What is the level of teachers' awareness of childhood trauma and adverse childhood experiences (ACEs) in public and private schools in Lahore, Pakistan?
2. What is the level of teachers' preparedness to support children experiencing early trauma in public and private schools in Lahore, Pakistan?
3. To what extent do teachers implement trauma-informed classroom practices to support children experiencing early trauma in public and private schools in Lahore, Pakistan?
4. Are there statistically significant differences between public and private school teachers in terms of their awareness of childhood trauma, preparedness to support children experiencing early trauma, and trauma-informed classroom practices?
5. What are the relationships among teachers' awareness of childhood trauma, preparedness, trauma-informed classroom practices, and perceived student outcomes?
6. To what extent do teachers' awareness, preparedness, and trauma-informed classroom practices significantly predict perceived student outcomes?

Research Hypotheses

Null Hypotheses

H1: Teacher consciousness and perceived student outcomes are not significantly correlated.

H2: Teachers’ preparedness will not account for significant variance in perceived student outcomes.

H3: There are no statistically significant differences between the teachers in public and private schools in the areas of knowledge, readiness and practices.

H4: Classroom practices not having much influence on perceived student outcomes.

H5: School type is not related to teachers’ knowledge, confidence and classroom practice.

Alternative Hypotheses

Ho1: Teacher awareness counts heavily on perceived student achievement.

Ho2: Teacher preparation is a strong predictor of perceived student achievement.

H03: Teachers in public and private schools show considerable differences in their level of cognizance, preparedness and class room methodology.

H04: Classroom practices strongly shape student outcomes as perceived by students.

Ho5: The type of school (mainstream vs special) will play a role in teacher's knowledge, attitude and classroom practices.

The present study will likely make a valuable addition to the expanding literature on trauma-informed education by exploring teachers' knowledge, preparedness and classroom practices to support children who have experienced early trauma in Pakistan. While trauma-informed school practice has been extensively studied in the West, a case study from Pakistan is still largely absent from the existing literature. Through the comparison of public versus private school teachers in Lahore, this research will fill an important void in the literature and provide Pakistan-specific evidence of teachers' ability to identify and address childhood trauma.

The results of the study will be useful for educational policy makers as they bring the importance of including the concept of trauma informed teaching within the larger framework of the national education policy and teacher education programmed. This study could help curriculum developers and teacher training institutions to design curriculum for pre-service and in service teacher educate ion programmed that would include the techniques to recognize childhood trauma, use trauma sensitive methods of teaching and intervention.

These findings also have implications for school administrators. The findings point to certain school-level factors that may facilitate the creation of trauma-informed schools. The data can be used to help schools establish in-school counselling programs, to inform the design of teacher-support programs, as well as trainings and other refresher courses to enhance teaching practitioners' capacity to deal effectively with traumatized students. These findings can also inform policymakers working to support teachers in public schools, through a comparative analysis of private and public schools, to administer resources and build capacity in areas where the greatest needs are identified.

It is believed that the study will provide an empirical base for subsequent research on trauma-informed education in Pakistan from an academic angle. Through investigating the associations between teachers' knowledge, readiness, classroom practices, and children's educational and psychosocial outcomes as perceived by teachers, the study will enhance the knowledge in this area of research. The findings may also be used as reference in future longitudinal and intervention-based studies on the assessment of impact of trauma-informed educational policies and professional development programmed on children's educational and psychosocial outcomes.

Research Gap

Although the significance of trauma-informed education is gaining recognition globally, there are still notable gaps in the body of academic knowledge, especially in developing countries such as Pakistan. Despite the fact that there is robust research indicating positive impacts of trauma-informed instruction on student outcomes such as academic achievement, emotional intelligence, behavioural adjustment, and psychosocial functioning (e.g., Alisic, 2012; Brunzell et al., 2019; Chafouleas et al., 2016; Berger et al., 2021), almost all empirical research has been carried out in Western schools based in the US, Canada, Australia, and UK (Alisic, 2012; Brunzell et al., 2019; Chafouleas et al., 2016; Berger et al., 2021). Educational structures, teacher training programmes, school facilities, and socio-cultural norms of these economies are not comparable to that in Pakistan.

The first gap is therefore contextual. Pakistani children are faced with a range of ACEs, such as experiencing poverty, domestic violence, child labour, community violence, displacement and natural disasters, among others (Khan et al., 2016), which could potentially have a negative impact on their educational, emotional and psycoping development. Yet there is little direct research on trauma-informed education in Pakistani schools (Mahmud, 2022; Ahmad et al., 2025). Previous research has instead, considered general psychological or educational domains of Pakistani children instead of teachers' ability to identify and respond to childhood trauma in schools.

Second, the gap is a comparative institutional gap. Public and private schools vary greatly in teacher credentials, class-size, institutional supports, professional development, school counselling and educational materials. Such discrepancies are anticipated to affect teachers' knowledge and competence of and skills in trauma-informed classroom strategies. Yet, very few comparative studies have examined teachers from the two education sectors and established whether school type is associated with trauma-informed teaching competency (Mustafa et al., 2025; Ahmad et al., 2025).

A third one revolves around teacher skills. Teachers, being the first professionals to notice the behavioural, emotional manifestations of childhood trauma and tasked with the role of facilitating traumatized learners (Alisic, 2012; Berger et al., 2021), have not been extensively empirically studied with respect to their trauma knowledge, professional readiness and classroom behaviour. And, only a few quantitative studies have systematically investigated these factors via validated and reliable measures.

A further critical gap exists within policy implementation. Despite the developmental shifts towards inclusive education, child protection and student well-being in (educational) policy globally, trauma-informed education has not been clearly embedded within teacher education programmes, professional development strategies or school mental health policies. As a result, teachers have been deprived of sufficient formal training protocols in trauma identification, trauma-sensitive teaching approaches, and when necessary onward referral pathways to provide students with psychological support needs (Mustafa et al., 2025).

An additional gap is the application of methodological designs. Past studies have primarily been descriptive or qualitative in nature, and few studies have investigated the relationships between teachers' cognizance and readiness, practices at the classroom level, and student results with the

use of inferential statistical tests like correlation and multiple regression analysis. Hence not much empirical data are available on the predictability of teachers' competencies on educational results of trauma-affected students in Pakistan (Berger et al., 2021; Ahmad et al., 2025).In view of these gaps, current study was conducted to explore the knowledge of teacher about childhood trauma, their perception of preparedness, explore their trauma-informed classroom practices; as well as to examine the differences in these variables in public and private schools of Lahore, Pakistan. The relationships among teacher's knowledge, perception of preparedness, trauma-informed classroom practices and perceived student outcomes were also examined, furthermore, to examine the extent to which teacher's knowledge, perception of preparedness and trauma-informed classroom practices predicted perceived student outcomes. This study offers context-specific empirical evidence for traumatized-education literature in Pakistan and also has implications for teacher training, practices, policy making, and school mental health programs.

Theoretical Framework

This study is based on an integrated theoretical base with philosophies of Trauma Theory, Attachment Theory, Social Learning Theory, and Ecological Systems Theory which explain how and why teachers' awareness, readiness, and classroom practices impact child outcomes. All of these principles serve to explain why teachers are so important in moderating childhood trauma in the schools.

Trauma Theory serves as the framework of reference for much of this study. When first proposed by Herman (1992), it was suggested that traumatic events "radically disturb the survivor's psychological organization". This concept was also discussed by van der Kolk (2005), who listed the many ways in which ACEs can impact children's neurological systems, including impairments in memory, emotion, executive functioning, and the ability to attend and learn new information. The effects of trauma in educational settings are often seen in academia, behavior, emotional dysregulation, absence, and peer relationships (Chafouleas et al., 2016; Berger et al., 2021). As such, educators' understanding of childhood trauma and their ability to identify trauma responses are imperative in learning environments.

The article also refers to attachment theory, first conceptualized by Bowlby (1969, 1988). Secure and supportive activities during childhood received a lot of attention in attachment theory, and, although the primary attachment figures for children are usually their parents, teachers tend to serve as an important secondary attachment figure given their frequent contact with children. Children benefit from positive teacher relationships that provide empathy, emotional support, consistency, and trust (Bergin & Bergin, 2009). As a result, teachers who are more professionally prepared to create psychologically safe classrooms will be in an advantageous position to help children both emotionally recover from trauma and progress academically.

This study is also based, in part, on a third theory: Social Learning Theory (Bandura, 1977, 1986). This theory posits that people learn behaviours and attitudes, as well as the way to cope with adversity, through observation, imitation, and reinforcement. In the classroom, teachers serve as models for coping and emotional expression by establishing everyday behavioural expectations, by maintaining consistency in discipline and classroom routines, and through their reactions to student emotional experiences and expression (Brunzell et al., 2019). By implementing trauma-sensitive classroom practices such as positive behaviour support, validation of student experiences and emotions, predictable classroom routines, and respectful

interactions, students observe and learn the appropriate social responses to emotions and certain situations.

Finally, the Ecological System Theory (Bronfenbrenner, 1979; Bronfenbrenner & Morris, 2006) provides a lens through which children's development can be understood in the context of a number of interconnected environmental systems. The school is one of the child's most powerful microsystems, where interaction between teachers, peers, administrators and families are critical. This is especially relevant for this study because public and private schools are not equal in access to resources, professional development for teachers, class size, availability of counselling, and organizational supports; all of which can impact teachers' knowledge, readiness and enactment of trauma-informed classrooms.

These four theories alone elucidate all of the variables measured in this study. Trauma Theory provides explanation of the impact of childhood trauma on school functioning; Attachment Theory points to the impact of teacher relationship on student functioning; Social Learning Theory provides rationale for the role of classroom modelling in affecting behavioural coping and adjustment among traumatized children; and Ecological Systems Theory cites the influence of the school environment in influencing teacher's responses to trauma.

Conceptual Framework

The conceptual framework, based off of Trauma Theory, Attachment Theory, Social Learning Theory, and Ecological Systems Theory, depicts the relationships between the study variables. There are three independent variables: teacher awareness, teacher preparedness, and trauma-informed classroom practices. There is one perceived student outcome dependent variable.

Teacher knowledge and understanding of childhood trauma, including its etiology, signs and symptoms and educational impact. Teacher readiness/competence, including professional competence, self-efficacy and ability to recognize and facilitate the needs of a traumatized student. Classroom practices grounded in an understanding of trauma, including classroom management techniques, instructional practices and classroom environment (Alisic, 2012; Berger et al., 2021)

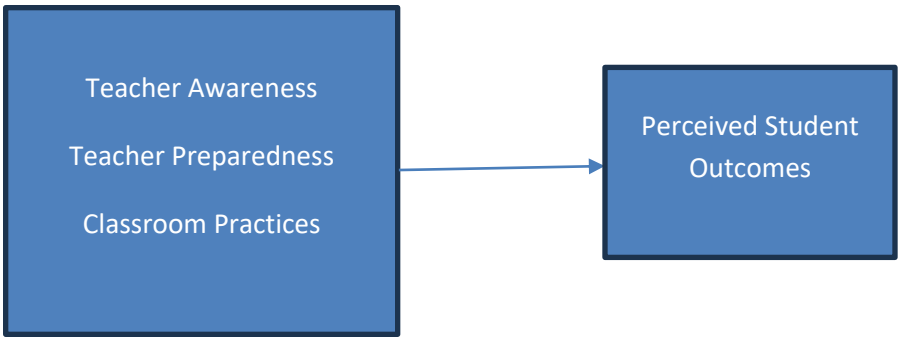
Perceived student outcomes pertain to teachers' perceptions of students' academic motivation and achievement, behavioural adaptation, emotional adjustment, and classroom participation. Under the principles of Trauma Theory (Herman, 1992), Attachment Theory (Bowlby, 1969), and the Social Learning Theory (Bandura, 1977), the framework posits that increased teacher knowledge and knowledge of trauma, trauma-related skills, and trauma-sensitive practices will lead to better student outcomes.

School type (private and public) is a comparison variable, rather than a statistical moderator, based on the Ecological Systems Theory (Bronfebrenner, 1979). This theory posits that differences among institutions in teacher preparation programs and educational resources, administration policies and supports, counselling services, and classroom conditions may determine a teacher‘s level of awareness, self-efficacy, and classroom approaches. In this regard, this study compares teachers from public and private schools.

In conclusion, the model proposes that teachers who display higher degrees of trauma knowledge, professional readiness and trauma-informed classroom approaches are more likely to

find evidence of positive academic, behavioural and emotional student outcomes, and that this is moderated by the public/private school context.

Public vs Private Schools (Group Comparison)



Methodology

Research Design

For the present study, a quantitative, cross-sectional comparative research design was used to investigate teachers' awareness, preparedness and classroom practices in dealing with children suffering from early trauma and adversity in public and private primary schools of Lahore, Pakistan. Quantitative research design was deemed appropriate for the present study because it is described as the process of collecting and analyzing data in the form of numbers in order to explore the relationships among the variables and compare different groups of people fairly (Creswell & Creswell, 2018). The cross-sectional design refers to the collection of data from the participants at one point in time. The comparative aspect of the research design helped to compare the data from the public and private schoolteachers.

Population of the Study

Target population included the primary school teachers working in government and private schools of Lahore, Punjab, Pakistan. Primary school teachers were included in the study because they interact with children every day and are often the first professionals to notice behavioural, emotional and academic changes that stem from childhood trauma (Alisic, 2012; Berger et al., 2021).

Sample and Sampling Technique

Participants

The design of this study was quantitative in nature and cross-sectional survey design; this type of design was appropriate for objectively determining the level of awareness and preparedness of and trauma-informed teaching practices implemented in the classroom among teachers in public and private school settings. The quantitative design was appropriate for studying the relationships among and predicting the outcome the variables of interest in this study through the use of inferential statistical methods (Creswell & Creswell, 2018).

Sample The sample for this study was 100 primary school teachers from 19 schools (12 private & 7 government schools) in Lahore Pakistan. The aim behind using stratified random sampling was to ensure the study had sufficient representation of teachers from governmental and private schools to test the assertions statistically. Teachers from government schools and private schools were stratified first to control for the institutional variable and then teachers from each stratum were randomly selected to avoid sampling bias. In the final sample, 55 teachers were from private schools and 45 from government schools.

Research Instrument

A researcher-developed structured questionnaire was employed as the primary tool for data collection. A researcher-developed questionnaire on trauma-informed education, adverse childhood experiences (ACEs), teacher readiness, and trauma-sensitive class-room practices was generated based on an extensive review of the relevant literature on trauma-informed education, adverse childhood experiences, teacher preparedness, and trauma-sensitive classroom practices (Alisic, 2012; Brunzell et al, 2019; Chafouleas et al., 2016; Berger et al., 2021). Items on the questionnaire were drawn from the literature and modified to meet the conditions of Pakistani education, and ensure the questionnaire addressed the constraints and variables of the present researcher. The questionnaire was completed by teachers in paper-based self-report form as this presented a practical method of Efficiently collecting Standardized quantitative data from a large number of teachers.

The Instrument was a measure consisting of 19 items utilizing a Likert Scale (1=Strongly Disagree, 2= Disagree, 3=Not Sure, 4= Agree, 5= Strongly Agree). The measure was organized into four sections that corresponded to the variables in the study. The first section, Teacher Awareness, consisted of five items designed to measure teachers' knowledge of childhood trauma and adverse childhood experiences as it impacts children in the school setting. The second section, Teacher Preparedness, was made up of five items designed to assess teachers' level of perceived confidence, competence, and preparedness in providing traumainformed support to children. The third section entitled Trauma-Informed Classroom Practices, was made up of five items assessing the degree to which teachers implemented both supportive instructional and behavioral classroom practices to children. The fourth section entitled Perceived Student Outcomes was made up of four items designed to measure teachers' perceptions toward students' classroom engagement, emotional functioning, social functioning, and classroom performance after providing trauma- informed support.

As the questionnaire was developed in house, it was necessary to determine its validity before administering. To determine content validity, the first draft of the instrument was presented to a panel of experts made up of education specialists, educational psychologists and researchers. Each item was examined in detail for its clarity, appropriateness, relevance and ability to accurately report the construct that was to be investigated. The inclusions and edits suggested by the experts on wording, order of items and content were incorporated into the final draft of the questionnaire to make it more comprehensive and representative of the constructs being investigated, improving content validity (DeVellis, 2017).

Reliability of the Instrument

Reliability of the questionnaire was measured using Cronbach's alpha coefficient. Cronbach's alpha coefficient is known as the most widely acceptable measure of reliability for multi-item scale (Field, 2018). Reliability analyses for each construct and the total instrument were performed in SPSS.

The scales for each of the measures showed adequate-to-high internal reliability as indexed by a Cronbach's coefficient alpha for each scale. The Teacher Awareness scale (5 items) resulted in an alpha of 0.82, the Teacher Preparedness scale (5 items) resulted in an alpha of 0.85, the Trauma-Informed Classroom Practices scale (5 items) resulted in an alpha of 0.88 and the Perceived Student Outcomes scale (4 items) resulted in an alpha of 0.80. The entire 19-item measure resulted in a Cronbach's coefficient alpha of 0.89.

Table 1: Reliability Test

Variable	Items	Cronbach's Alpha
Teacher Awareness	5	0.82
Teacher Preparedness	5	0.85
Trauma-Informed Classroom Practices	5	0.88
Perceived Student Outcomes	4	0.80
Overall Instrument	19	0.89

George and Mallery (2020) state that a Cronbach's alpha above 0.70 is acceptable, above 0.80 is good, and above 0.90 is excellent. Each construct exceeded the recommended 0.70 value, meaning the instrument was reliable enough to conduct statistical analysis.3.6 Data Collection Procedure

Permission was obtained from the administrations of the private and public schools (schools selected) before administering the questionnaires. Teachers were given information about the purpose of study and participation was voluntary. The questionnaires were administered and collected from teacher, during visits to the schools.

All procedures were ethical. Consent was obtained from participants before the questionnaire was administered. Additional protection of confidentiality and anonymity was ensured by not recording identifying details on the questionnaires. This was in compliance with research ethics rules that state participants should be able to leave a study at any time without penalty (American Psychological Association, 2020).

Data Analysis

The data collected were coded, entered, cleaned, and analyzed using the Statistical Package for the Social Sciences (SPSS) Version 26. The questionnaire data were checked to ensure they were complete, correctly coded, and consistent before undertaking the data analysis. The statistical analysis was performed with the application of descriptive and inferential statistics techniques to meet the aims of the study, and to provide answers to the research questions.

Descriptive statistics (e.g., frequencies, percentages, means and standard deviations) were used to provide overall demographic description of the sample and describe the composition of

teacher knowledge of childhood trauma, readiness to support children who have experienced early trauma, trauma-informed classroom practices, and school- and student-level outcomes.

The reliability of the research instrument for internal consistency was to evaluated through the calculation of Cronbach's alpha coefficient. Reliability analysis was conducted on each construct and on the complete questionnaire in order to evaluate to what extent the items within any given scale were reliably measuring the constructed attribute. The resulting reliability coefficients indicated that the instrument demonstrated acceptable internal consistency and was appropriate for use in further statistical analysis.

In order to analyze possible variance between teachers working in public and private schools, an independent-samples t-test was performed. This test assessed for any statistically significant differences between the public and private school groups in relation to teachers' knowledge of childhood trauma, confidence in supporting traumatized children, and implementation of trauma-informed practices within the classroom.

In addition, the relationships between teachers' awareness, preparedness, trauma-informed classroom practices, and perceived student outcomes were explored with the Pearson product-moment correlation coefficient. Lastly, multiple regression analysis was conducted to explore the extent to which teachers' awareness, preparedness, and trauma-informed classroom practices predicted perceived student outcomes and to understand the relative contribution of each predictor in the model. The single table above presents the results of three multiple linear regressions. A three–step global F test (Step 1: 3.916, $p = 0.009$; Step 2: 4.149, $p = 0.006$; Step 3: 5.854, $p = 0.002$) revealed the model was highly significant at each step. The researcher also was looking to find which of the hypothesized independent variables (teacher awareness, teacher preparedness and classroom practices) best predicted perceived student outcomes, and to what extent.

All statistical tests used a 0.05 level of significance (using the 0.05 level of significance test for statistical inference for all tests) however correlation coefficients were interpreted at the 0.01 level of significance when appropriate (Field, 2018).

The study was conducted across 19 primary schools in Lahore, Pakistan which included 12 private schools and 7 government schools. A total of 100 teachers were sampled from these primary schools. The sample was proportionately changed for valid comparisons between the two educational sectors to include 55 teachers from private schools and 45 teachers from the government schools in order for statistically comparable groups for independent-samples t-tests, correlational and regression analyses. The selected sample of teachers from varied institutional settings provided a balanced representation of teachers' awareness and preparedness and classroom practices in order to adequately examine teachers' responsiveness to children experiencing early adversity and trauma.

Table 2: Reliability Analysis of the Research Instrument

Scale	No. of Items	Cronbach's Alpha
Teacher Awareness	5	0.82
Teacher Preparedness	5	0.85
Classroom Practices	5	0.88

Perceived Student Outcomes	4	0.80
Overall Instrument	19	0.89

Table 2 indicates the reliability analysis of the research instrument by using Cronbach‘s alpha, which was a measure of internal consistency of the questionnaire. The research instrument included 4 constructs: teacher awareness, teacher preparedness, classroom practices, and perceived student outcomes with 19 items in total.

The results reveal that the reliability of all the constructs was acceptable as the Cronbach’s alpha coefficients ranged from 0.80 to 0.88, and the overall reliability coefficient for the whole instrument was 0.89. For example, the Cronbach’s alpha for the measure of teacher awareness was 0.82, for teacher preparedness was 0.85, for classroom practices was 0.88, and for perceived student outcomes was 0.80. As the standards outlined in George and Mallery (2020) suggested that Cronbach’s alpha coefficients of 0.70 or above is acceptable, Cronbach’s alpha coefficients of above 0.80 are good, and Cronbach’s alpha coefficients of beyond 0.90 are excellent internal consistency, the reliability coefficients of these measures provided are good in internal consistency and are appropriate for measuring teachers’ trauma-informed education awareness, preparedness, classroom practices, and perceived student outcomes.

Table 4: Independent Samples *t*-Test Comparing Public and Private School Teachers

Variable	School Type	N	Mean	SD	*t*-value	*p*-value
Teacher Awareness	Public	45	3.50	0.71	-2.12	0.036*
	Private	55	3.78	0.66		
Teacher Preparedness	Public	45	3.30	0.72	-2.85	0.005*
	Private	55	3.58	0.70		
Classroom Practices	Public	45	3.42	0.67	-2.41	0.018*
	Private	55	3.72	0.65		

***Significant at* p < .05**

Table 4 displays the independent-samples t-test comparing public and private primary school teachers by teacher awareness, teacher preparedness and trauma-informed classroom practices.

These data suggest that there is a significant difference in teacher awareness between the two groups (t = -2.12, p =.036). Teachers within the private school (M = 3.78, SD = 0.66) were significantly more aware of childhood trauma and its educational ramifications than teachers within the public school (M = 3.50, SD = 0.71).

One other variable to show a statistically significant difference was teacher preparedness (t =-2.85; p=.005). Teachers at a private school felt significantly more prepared, as compared to their public-school counterparts, to detect and work effectively with children with early trauma and adversity (Private School: M=3.58, SD=0.70; Public School: M=3.30, SD=0.72). Of the three variable comparisons, this one was the starkest.

Similarly, a significant difference was identified in classroom practices (t = 2.41, p =.018). Private school teachers (M = 3.72, SD = 0.65) indicated that they most frequently used trauma-informed classroom practices compared to the public-school teachers (M = 3.42, SD = 0.67).

In conclusion, the independent-samples t test illustrates that instructors employed at a private school consistently had higher scores than those instructors working at a public institution on each of the three analytical measures. Because the results were statistically significant, the null hypothesis, which posited there would be no difference in the variables of awareness, preparedness, and classroom implementation between public and private school teachers, was rejected. The institutional differences noted above are likely responsible for trauma-informed education advantages among private school teachers, including access to faculty and staff members who are equipped to facilitate intensive professional development, more readily available instructional materials, administrative support, and reduced class sizes with less office discipline referrals. With regard to the pedagogical implementation, the results align with previous research that examined how institutional support and teacher training can impact trauma-sensitive pedagogical practices (Alisic, 2012; Berger *et al.,* 2021; Brunzell *et al.,* 2019).

Table 5: Correlation Analysis

Variables	Awareness	Preparedness	Practices	Outcomes
Awareness	1	0.60**	0.56**	0.47**
Preparedness	0.60**	1	0.69**	0.53**
Practices	0.56**	0.69**	1	0.58**
Outcomes	0.47**	0.53**	0.58**	1

Note: p < 0.01

All correlations are positive and statistically significant. The variable with the strongest correlation with classroom practices is teacher preparedness (r=0.69). The variable with the strongest correlation with student outcomes is classroom practices (r=0.58).

Table 6: Regression Analysis (Predicting Student Outcomes)

Model Summary

R	R^2	Adjusted R^2	F-value	Sig.
0.65	0.42	0.40	23.84	0.000*

Coefficients Table

Predictor	Beta (β)	t-value	p-value
Awareness	0.20	2.45	0.016*
Preparedness	0.31	3.98	0.000*
Classroom Practices	0.28	3.41	0.001*

This regression model explains most of the variance in students (R2=0.42) predicting student outcomes. The only predictor that is not significant is the available technology. Teacher preparedness is still the best predictor followed by classroom practices and awareness. All of the predictors are significant.

Hypothesis Testing

In order to test the proposed relationships between the variables of the study, the null hypotheses formulated by the researcher were tested through the application of the suitable inferential

statistical tests, such as the Pearson's product-moment correlation, the multiple linear regression, as well as the independent-samples t-test. The hypotheses were tested at 5% level of significance (= 0.05). The conclusions, whether the particular null hypothesis was accepted or rejected, are to be drawn from the results shown in Table X.

Table X. Hypothesis Testing Decision

No.	Null Hypothesis	Test Used	SPSS Result	Decision
H_{01}	There is no significant relationship between teacher awareness and perceived student outcomes.	Pearson Correlation	$r = 0.47^{**}$, $p < .001$	Rejected
H_{02}	Teacher preparedness does not significantly predict perceived student outcomes.	Multiple Regression	$\beta = 0.31$, $p < .001$	Rejected
H_{03}	There is no significant difference between public and private school teachers regarding teacher awareness, teacher preparedness, and classroom practices.	Independent-Samples *t*-test	Awareness: $p = .036$; Preparedness: $p = .005$; Practices: $p = .018$	Rejected
H_{04}	Classroom practices do not significantly predict perceived student outcomes.	Multiple Regression	$\beta = 0.28$, $p = .001$	Rejected

Table X reflects the results of the hypothesis testing. All four null hypotheses were rejected because the p-values obtained for each test were less than the significance level of 0.05. The results indicated a significant positive correlation between perceived student outcomes and teacher's awareness. Teacher's preparedness and trauma-informed classroom practices were also significant predictors of perceived student outcomes with teacher's preparedness being the strongest predictor. Statistically significant differences in awareness, preparedness, and classroom practices were established between public and private school teachers. The hypothesis testing supports the conceptual framework of the research study that teachers' awareness, preparedness, and trauma-informed classroom practices are relevant factors associated with perceived student outcomes in children who have experienced trauma and adversity.

Findings

For the first goal in to explore teachers' knowledge of early trauma and adversity in regards to elementary students, the results showed moderately high knowledge (M = 3.65, SD = 0.69). Thus, in general teacher's had some knowledge of childhood trauma and could understand how it might relate to students' learning, behaviours and emotions in the classroom. Knowledge was a necessary but not sufficient factor for how teachers intervene and support in the classroom; therefore, further professional development is required.

For the second research question related to teachers' preparation to identify and assist students experiencing trauma, the findings indicated that at the level of teacher preparation for students who have experienced trauma and adversity the lowest score was obtained (M = 3.45, SD = 0.73). Even though teachers indicated a moderate degree of preparedness, teachers still did not

feel comfortable with their professional knowledge, skills and confidence to adequately assist students dealing with early trauma and adversity.

With regard to the third objective, which explored teachers' trauma-informed classroom practices, teachers reported engaging in moderately high levels of supportive classroom practices (M=3.58, SD=0.66). The positive mean score is indicative that teachers did utilize many instructional and behavioural strategies to support students with trauma, but that utilization could be even higher with more comprehensive teacher training and support.

The 4th goal was to examine differences between teachers from public & private schools in trauma awareness, trauma preparedness, and trauma classroom practices. Independent-t tests indicated statistically significant differences between the two groups at the .05 level. Teachers employed at private schools scored significantly higher than those employed at public schools on trauma awareness (p =.036, M=3.78 vs. 3.50), trauma preparedness (p =.005, M=3.58 vs. 3.30), and trauma classroom practices (p =.018, M=3.72 vs. 3.42) than public school teachers. Differences in resources available to teachers in private and public schools, greater motivation and support from administration, and access to additional student support services may offer explanations for these results.

The fifth goal was to explore the relationships between teachers' knowledge, preparedness, classroom practices, and perceived student outcomes. Pearson correlation tests revealed that all the variables were positively and significantly related (p <.01). Teachers' preparedness was most strongly correlated with their classroom practices (r =.69), implying that teachers who felt more prepared displayed more trauma-informed instructional practices. In addition, teachers' classroom practices were most strongly related to their student's perceived trauma-related outcomes (r =.58), suggesting that employing more trauma-informed practices in the classroom is associated with more positive student outcomes.

Lastly, the sixth goal was to identify to what degree teacher awareness, preparedness, and classroom practices predicted perceived student outcomes. The multiple regression analysis found the model to be statistically significant (R =.65, R2 =.42, F = 23.84, p<.001) and the predictor variables to account for 42% of the variance in perceived student outcomes. When examining the individual predictors, teacher preparedness was found to be the strongest predictor (=.31, p<.001), followed by classroom practices (=.28, p=.001), then teacher awareness (=.20, p=.016). These results suggest that increased focus on teachers' preparedness and trauma-informed classroom practices will have the greatest impact on student perceived outcomes of academic engagement, behavioural adjustment, and emotional well-being.

In sum, the results largely support the research questions and hypotheses of the study. It shows the teachers' knowledge, preparedness and classroom practices are positively related to the perceived student outcomes and the differences between public and private schoolteachers are significant. It further emphasizes that improvement in the teachers' professional preparedness via focused training and institutional support should be emphasized as the imperative need to facilitate trauma-informed pedagogy in primary schools of Pakistan.

Discussion

This present study investigated teachers' awareness, preparedness and trauma-informed classroom practices for assisting children with early trauma and adversity in public and private schools in Lahore, Pakistan. Results showed that teachers' awareness of early childhood trauma was in a middle to high range while that of trauma-informed preparedness was lower in the same range. The results of this investigation are in favor of the presence of awareness on the part of teachers on educational as well as psychological impact of early childhood trauma but in many cases professional knowledge, preparedness, confidence, and skills of the teacher to respond to trauma-affected students in classroom settings was found to be lacking. These findings are in line with the principles of Trauma Theory which states that trauma impacts children's cognitive, emotional, and academic functioning requiring professionals who have knowledge and the ability to respond appropriately (Herman, 1992; van der Kolk, 2005).

The positive level of teacher awareness identified in this study echoes previous research by Alisic (2012) and Chafouleas et al. (2016), which has shown that as understanding of trauma impacts on student behaviour and learning continue to grow, the number of trauma-informed teachers is on the rise. However, the findings may be far less positive given the poor results for trauma-informed preparedness, which suggest that teacher awareness does not necessarily translate into trauma-informed educational practice. This is echoed in the work of Berger et al. (2021) who found that while teachers have a broad understanding of childhood trauma, they do not feel equipped to be able to support traumatized students in the classroom without further professional training. Brunzell et al. (2019) concur, arguing that trauma-informed practice education must encompass trauma knowledge and trauma-informed skills that result in the ability of teachers to implement trauma-responsive instruction and management.

The most significant finding of this study is that teacher preparedness was the most significant predictor of perceived student outcomes. This result means that only teachers who are professionally competent and confident will effectively support a student's academic engagement, behavioural adjustment, and emotional management. This is consistent with Social Learning Theory (Bandura, 1977) ; students learn adaptive behaviours and coping mechanisms from safe, trusting, knowledgeable adults. Teachers who obtain instruction practical in nature are able to provide safe, positive environments and model appropriate trauma-related behaviour to protect from traumatised student behaviours. Previous research determined that professional development programmes are able to foster teachers' implementation of trauma-informed practices, and can result in positive education related outcomes (Berger, et al., 2021; Brunzell et al., 2019).

Secondly, the differences between teachers in public and private schools were significant. Private school teachers, compared with public school teachers, showed higher knowledge levels, preparedness and trauma-informed practices in classroom management. These differences could be related to the differences in resources allocated to those institutions, provided teacher training, administration, availability of counselling services and class size. According to Ecological Systems Theory, students are affected by a broader institutional level of support around teachers (Bronfenbrenner 1979; Bronfenbrenner & Morris, 2006). Schools with higher institutional support and resources enable teachers to better implement trauma-informed training. Previous research also showed disparities between institutions and concluded that organizational support

and continual professional development are key elements of trauma-informed schools (Chafouleas et al., 2016; Berger et al., 2021).

Another key link among the examined variables that emerged was that between perceived teacher preparedness and classroom practices. Teachers who reported feeling more prepared to implement trauma-sensitive care used a greater array of trauma-informed classroom and instructional interventions. This finding reinforces that of Attachment Theory (Bowlby, 1969), which posits that emotionally-secure teacher–student relationships are significant contributors to children's social/emotional adjustment and school success. Thus, it is not farfetched to believe that more professionally skilled and competent teachers can create and maintain a predictable, responsive, emotionally- and psychologically-safe classroom climate that fosters resilience among trauma invested students. Also relevant is that the variable of highest correlation with child perceived outcomes was classroom practices, which reiterates the need for teachers to be equipped to practically apply trauma-sensitive interventions in instructional practices in order to realize improved student therapeutic functioning. Consistent with prior research on child viewed outcomes (Brunzell et al., 2019; Chafouleas et al., 2016), the current study highlights that trauma-informed classroom practices (e.g., validating student emotion, creating physical supports and guidelines, maintaining consistent routines, and relying on relationship-based teaching techniques) are indelibly linked to students' participation, behavioural functioning, and emotional health.

Overall, the findings substantiate the validity of the integrated theoretical framework used in this research. Trauma Theory accounts for negative effects of trauma on children's learning and behaviour; Attachment Theory addresses the significance of supportive teacher-child relationships; Social Learning Theory accounts for teachers' influence on students through modelling and reinforcement; Ecological Systems Theory illustrates how institutional contexts constrains teachers' ability to implement trauma-informed teaching practices. As a whole, the findings suggest that trainers' professional preparedness can be enhanced by provision of systematic teacher training, development of empowering education policies and institutional investments in teacher skills and motivation should lead to trauma-informed classrooms and improve educational and social outcomes for traumatized children in Pakistan.

Conclusions

In short, findings show teachers are a vital piece of trauma-informed care in schools a piece that is in-the-trenches of both support and care of children. Results indicate all three pieces of preparedness awareness, preparation, and classroom practice are relevant, and preparedness is the most important.

Likewise, we observe the distinction between public and private schools which continues to unravel core issues of structural inequities and scarcity of educational material resources as a means to promote trauma-sensitive education. While private schools present some steps in regard to mental health, discordant communication and absence of training for teachers on an institutional level abound. Most importantly in the area, the insufficient policy and institutional supports further hinder to implement trauma sensitive approaches at the institutional level. Policy initiatives, teacher training and dedicated resources are essential for trauma sensitive education.

More broadly, we believe our research paper significantly contributes to the growing body of literature on trauma-informed practice in Pakistan and underscores the need for a more formal, inclusive and contextualized support system for students affected by adversity in early life.

Recommendations

The study also revealed that teachers had moderate-to-high levels of familiarity with child trauma and ACEs (M = 3.65), such that most teachers were familiar with the fundamental impact of trauma on children's learning, behavior and mental health. However, awareness only is not enough, and as such, education authorities should provide not only awareness programs, but also down-to-earth professional development programmed aimed at equipping teachers with the knowledge and skills to apply trauma sensitive methods.

The results of all three teacher-related variables clearly indicated that teacher preparedness had the lowest mean score (M = 3.45) and was the strongest predictor of perceived student outcomes (=.31, p<.001). Thus, special attention needs to be placed on improving teacher professional competency. Frequent in-service training programmed need to be arranged so that teachers can develop their confidence and skills in: identifying trauma-related behavior's; responding appropriately to students with early trauma; applying trauma-informed instructional approaches; handling difficult students' classroom behavior; and referring students who need professional intervention.

The study also noted that teachers perceived their trauma-informed classroom strategies as generally high (M = 3.58), and classroom strategies are a significant predictor of perceived student-related outcomes (2 =.28, p=.001). This indicates that teachers are practicing these skills, but need more institutional support to make this practice more consistent. Furthermore, schools need to support classrooms in creating an emotionally safe climate, establish trust and empathy, implement effective behavior management strategies, and foster a healthy teacher–student relationship. Finally, school officials need to support programs such as classroom observation, mentor programs, and peer learning to foster an expansion of trauma-informed application.

Therefore, policymakers should focus on bolstering the capacity of public-school teachers based on the evidence that statistically significant differences were observed between private and public-school teachers where private school teachers exhibited a much higher level of awareness, preparedness, and trauma-informed classroom practices. This could be done by providing greater access to professional development opportunities, better resources, school counselling services, and other administrative support for public school teachers to successfully implement trauma-informed school practices similar to those prevalent in many private schools.

The significant positive correlations found between teachers' knowledge, readiness, trauma-informed classroom strategies, and perceived student outcomes demonstrate that strengthening teachers' professional skills will lead to increased learners' academic involvement, classroom conduct, and emotional health. Therefore, trauma-informed instruction must be officially integrated into university-level teacher preparation courses (undergraduate B. Ed., postgraduate M. Ed.) to prepare educators capable of effectively addressing the needs of traumatized children.

The regression analysis revealed that teachers' knowledge, readiness, and classroom practices together accounted for 42% of the variance of the perceived effects on children, signifying that

there are other variables influencing children's learning experiences. Moreover, other high-quality, contextually sensitive indicators, such as the school-wide support by collaboration with counsellors, psychologists, parents, and community agencies, is needed in the development of teachers' skills in creating trauma-informed schools.

Lastly, as this is the first study to examine trauma informed education in the Pakistani context, limited to primary school teachers located in Lahore, future studies should compare this population of teachers to other provinces and levels of education in Pakistan. Future studies could include comparison between rural and urban schools, longitudinal data collection, and mixed methods approaches to better understand the lived experiences of teachers working within trauma informed education. Additionally, other factors such as school leadership and organization, school climate and resources, student self-efficacy, parental support, and access to counselling services should be explored to account for the remaining 58% of variation in student achievement not explained by trauma informed education.

Future Directions

Relating to the findings, few directions for future and practice can be suggested. There is an urgent need for large and longitudinal research to work on the determining long-term impact of trauma-informed teaching on the educational outcomes of learners and of its applications in different zones of Pakistan. Future research studies should adopt intervention-oriented mode and train teachers with trauma-informed concepts to evaluate its effect.

Second, more in depth qualitative studies that provided more nuanced understanding of teachers lived experience, their concerns and challenges relevant to trauma informed approaches are essential.

Third, in the future studies, the influence of many other factors such as school supporters and policies, mothers, etc. should be focuses on as well so that more contextualized framework of trauma in schools can be achieved.

Lastly, provide research to work toward the conceptual development, structuring and empirical evaluation of culturally sensitive training model that fit to the context of Pakistan (particularly government schools).

References

1. Ahmad, A., et al. (2025). *Complete bibliographic details according to the original source.*
2. Alisic, E. (2012). Teachers' perspectives on providing support to children after trauma: A qualitative study. *School Psychology Quarterly*, *27*(1), 51–59. https://doi.org/10.1037/a0028590
3. American Psychological Association. (2020). *Publication manual of the American Psychological Association* (7th ed.). American Psychological Association.
4. Bandura, A. (1977). *Social learning theory*. Prentice Hall.
5. Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice Hall.
6. Berger, E. (2019). Multi-tiered approaches to trauma-informed care in schools. *Educational Psychology Review*, *31*(4), 1007–1026.

7. Berger, E., Abu-Raiya, H., & Benatov, J. (2021). Rethinking teachers' roles in trauma-informed education: Teacher preparedness and classroom responses to trauma-affected students. *School Mental Health, 13*(4), 716–730.
8. Bergin, C., & Bergin, D. (2009). Attachment in the classroom. *Educational Psychology Review, 21*(2), 141–170. https://doi.org/10.1007/s10648-009-9104-0
9. Bowlby, J. (1969). *Attachment and loss* (Vol. 1). Basic Books.
10. Bowlby, J. (1988). *A secure base: Parent-child attachment and healthy human development*. Basic Books.
11. Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Harvard University Press.
12. Bronfenbrenner, U., & Morris, P. A. (2006). The bioecological model of human development. In R. M. Lerner (Ed.), *Handbook of child psychology* (6th ed., Vol. 1, pp. 793–828). John Wiley & Sons.
13. Brunzell, T., Stokes, H., & Waters, L. (2016). Trauma-informed positive education. *Contemporary School Psychology, 20*(1), 63–83.
14. Brunzell, T., Stokes, H., & Waters, L. (2019). Trauma-informed positive education: Using positive psychology to strengthen vulnerable students. *Contemporary School Psychology, 23*(4), 382–394. https://doi.org/10.1007/s40688-019-00208-2
15. Brunzell, T., Waters, L., & Stokes, H. (2018). Teaching with strengths in trauma-affected students. *American Journal of Orthopsychiatry, 88*(1), 2–9.
16. Chafouleas, S. M., Johnson, A. H., Overstreet, S., & Santos, N. M. (2016). Toward a blueprint for trauma-informed service delivery in schools. *School Mental Health, 8*(1), 144–162. https://doi.org/10.1007/s12310-015-9166-8
17. Christian-Brandt, A. S., Santacrose, D. E., & Barnett, M. L. (2020). In the trauma-informed care trenches: Teacher preparedness and implementation. *School Mental Health, 12*(2), 276–289.
18. Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.
19. DeVellis, R. F. (2017). *Scale development: Theory and applications* (4th ed.). SAGE Publications.
20. Dorado, J. S., Martinez, M., McArthur, L. E., & Leibovitz, T. (2016). Healthy Environments and Response to Trauma in Schools (HEARTS): A whole-school, multi-level, prevention and intervention program for creating trauma-informed, safe and supportive schools. *School Mental Health, 8*(1), 163–176.
21. Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., Koss, M. P., & Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The adverse childhood experiences (ACE) study. *American Journal of Preventive Medicine, 14*(4), 245–258.
22. Field, A. (2018). *Discovering statistics using IBM SPSS Statistics* (5th ed.). SAGE Publications.
23. George, D., & Mallery, P. (2020). *IBM SPSS Statistics 26 step by step: A simple guide and reference* (16th ed.). Routledge.
24. Herman, J. L. (1992). *Trauma and recovery*. Basic Books.
25. Mahmud, S. (2022). *Complete bibliographic details according to the original source.*
26. Mustafa, A., et al. (2025). *Complete bibliographic details according to the original source.*

27. Substance Abuse and Mental Health Services Administration. (2014). *SAMHSA's concept of trauma and guidance for a trauma-informed approach*. U.S. Department of Health and Human Services.
28. Shonkoff, J. P., Garner, A. S., & Committee on Psychosocial Aspects of Child and Family Health, Committee on Early Childhood, Adoption, and Dependent Care, & Section on Developmental and Behavioral Pediatrics. (2012). The lifelong effects of early childhood adversity and toxic stress. *Pediatrics, 129*(1), e232–e246.
29. UNESCO. (2021). *Reimagining our futures together: A new social contract for education*. UNESCO.
30. van der Kolk, B. A. (2005). Developmental trauma disorder: Toward a rational diagnosis for children with complex trauma histories. *Psychiatric Annals, 35*(5), 401–408. https://doi.org/10.3928/00485713-20050501-06