

Feasibility Evaluation of the Listen Protect Connect (LPC) Intervention for School Students in Pakistan: A Cluster Randomized Controlled Trial

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Abstract

Background: Post-traumatic stress disorder (PTSD) is a prevalent global mental health condition. Numerous prior studies have illustrated the efficacy of various psychosocial interventions designed to alleviate PTSD symptoms in children. Given the rising incidence of trauma-exposed students in schools, the current study endeavors to culturally adapt a school-centered intervention known as the 'Listen Protect Connect Model and Teach (LPC)' to specifically address trauma-exposed children and facilitate the mitigation of PTSD symptoms.

Methods: The study employed two psychological assessment tools, namely the Life Events Checklist-5 and the Child PTSD Symptom Scale. The research design encompassed pre- and post-follow-up assessments. To assess the acceptability and feasibility of the LPC intervention, a double-blinded, cluster-randomized controlled trial was conducted using a parallel two-arm design. A total of 64 students from eight private schools in Rawalpindi and Islamabad were selected, with a 1:1 randomization ratio for the intervention and control groups. To gauge the acceptability of the LPC intervention, a two-way analysis of variance (ANOVA) was performed.

Results: The findings demonstrated a noteworthy reduction in post-traumatic stress disorder (PTSD) symptoms among students who underwent the intervention. This decrease in PTSD symptoms was associated with the successful reintegration of these students into the school environment following their exposure to traumatic events. Additionally, the intervention had a positive impact on students' attendance and academic performance.

Conclusions: The study's results and findings indicate that integrating the LPC intervention into school settings effectively promotes a sustained enhancement of the psychosocial well-being of trauma-exposed students in Pakistan. Moreover, it offers benefits by reducing post-traumatic stress disorder (PTSD) symptoms among these students.

Keywords: School interventions, mental health of students, feasibility of an RCT in Pakistan, evidence-based school interventions

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Background

Trauma is characterized as an occurrence directly experienced, witnessed, or acquired knowledge of involving actual exposure to, or the imminent threat of, grave harm, sexual violence, or severe accidents. These events subsequently elicit irrational fear and anxiety, leading to feelings of helplessness and a recurrent experience of the incident based on fear (American Psychiatric Association, 2022). The consensus among most authoritative sources maintains that psychological trauma involves exposure to specific incidents or a series of events that exert adverse effects on an individual's functioning and overall well-being. Nevertheless, it's important to note that there is no universally accepted singular definition for this phenomenon (Rajaraman et al., 2022).

As per statistics provided by the National Centre for Post-Traumatic Stress Disorder (PTSD), it is estimated that roughly 50% of women and 60% of men in the general population will encounter at least one traumatic event during their lifetime. However, specific groups, such as military personnel (Presseau et al., 2019), first responders (Köhler et al., 2018), and individuals living in or fleeing from regions characterized by violent conflicts (Crumlish & O'Rourke, 2010; Frost et al., 2019), face a significantly higher likelihood of experiencing traumatic events. These incidents can have enduring effects on an individual's behavioral and psychological well-being.

The U.S. Department of Health and Human Services' Substance Abuse and Mental Health Services Administration (SAMHSA, 2014) defines individual trauma as an event, a series of events, or a set of circumstances that an individual perceives as posing a physical and emotional threat to their life. Such experiences can have lasting adverse effects on various facets of a person's functioning, including their mental, physical, social, emotional, and spiritual well-being. Trauma represents a profound emotional response to a stressful encounter that surpasses an individual's coping capacity (Masiero et al., 2020).

Children and adolescents are widely exposed to traumatic events, as a result of which, adverse psychological and psychosocial responses are triggered. Early childhood trauma influences brain development, therefore adverse experiences have harmful effects on early childhood. In order to lessen the effects of trauma, early identification of delayed social-emotional skills and treatment referral are crucial (Spehr et al., 2019). Trauma adversely affects around 80% of children worldwide. An individual's reaction to trauma is influenced by both the personal traits of the individual and the characteristics of the stressor. Childhood trauma affects how the brain, mind, and body works, which together may make one more susceptible to emotional disorders. (Kuzminskaite et al., 2021; Sharma-Patel et al., 2011; Sherin & Nemeroff, 2011). Children and adolescents may initially have a wide range of reactions to natural disasters and other types of mass trauma, including anxiety, posttraumatic stress disorder symptoms, concentration issues, and behavioral issues. Childhood trauma has innumerable adverse mental health consequences across children's life spans (De Bellis, 2014; Kuzminskaite et al., 2021).

The extended and prolonged effect of trauma on children often leads to developmental trauma disorder that affects the children beyond the devastating effects of PTSD.

(Bonanno et al., 2010; Spinazzola et al., 2021). However, numerous risk and resilience characteristics have an impact on how children react to disasters. For instance, a child's post-disaster adjustment may be influenced by the child's pre-existing traits, contextual factors including social support availability, the degree of trauma exposure, other life stresses, and family factors like parenting styles and parent mental health (De Bellis & A.B., 2014; Kuzminskaite et al., 2021).

Trauma has been cited in Pakistani national surveys as one of the primary causes of morbidity and mortality, disproportionately impacting young men (Hyder & Razzak, 2013; Salman et al., 2020). In Pakistan, the prevalence rates of children affected by trauma are higher than the prevalence worldwide because of some very important factors which include increased terrorist activities, religious and political extremism, sectarianism, floods due to poor drainage management, targeted killings, drone attacks, displacement of people due to armed conflicts and natural disasters such as earthquakes. Yet there exists a huge gap in effective emergency service and trauma care in Pakistan. (Hyder & Razzak, 2013; Munawar et al., 2020; Salman et al., 2020). It is alarming to declare that except earthquakes, all the other factors which contribute to the stress among children are directly or indirectly an effect of human activity.

Hussain (2015) researched significantly on the prevalence rates of the affected population of Pakistan was estimated with respect to the different types of traumatic events. Around 3315 people were killed in 2009 as a result of terrorist attacks, 2314 people were killed due to terrorist attacks in 2014, at least 1,800,000 people displaced due to different types of violence imposed on them and 771,000 displaced due to the natural disasters (Hussain, 2015; Liu et al., 2022). Altogether, such traumatic events contribute to Post Traumatic Stress Disorder and other mental health disorders including depression and anxiety disorders.

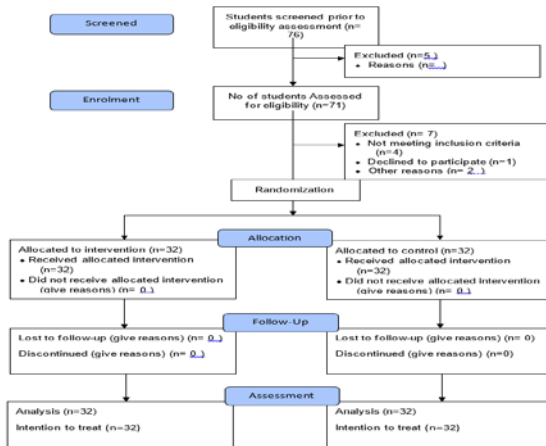
Method

Research objectives

1. To evaluate the acceptability of a school-based mental health intervention namely 'Listen, Protect, connect; Model and Teach' (LPC).
2. To translate and culturally adapt the LPC intervention according to the cultural context of school students.

Research design

The study utilized a pre and post, double blinded, two-arm, parallel, cluster, randomized controlled design for the feasibility evaluation. To maintain the quality and transparency in reporting the study, the consolidated standards of reporting trials (CONSORT) were used to guide the design (Eldridge, Chan, et al., 2016). The randomized controlled design was employed, as per adaptation of the CONSORT standards for conducting a feasibility study (Eldridge et al., 2016). The trial was registered at the 'The American Economic Association's registry for randomized controlled trials' under the RCT ID: AEARCTR-0009496.

Figure 1*CONSORT flow diagrammatic representation*

Participants

After determining the sample size through the G-power software, 64 students from two clusters (cities) Rawalpindi and Islamabad were chosen from eight different private schools. The schools were approached randomly from the two cities (clusters). The students from each school were chosen after being referred by the class teachers or campus heads. The referred students were assessed informally and then the initial paper-pen assessment (T-0 phase) was conducted to confirm the trauma exposure and post-traumatic reactions among students. Approximately, 54.7% of the sample students were female between the ages 13–17 years and represented grades 6th through 10th. The students were allocated to two groups; 32 students were allocated to the intervention group and 32 students in the control group. All the students were screened for trauma before the initial assessment.

Procedure

The feasibility study was conducted after receiving consents from the different institutes that served as the unit of randomization (schools). The consent procedure of the study included obtaining consents from the collaborated institutes, the authors of the scales and intervention, Institutional review board, schools, teachers, students and other stakeholders. Data collection procedure was initiated in the month of June 2022. Initially, the teachers who were to be chosen for the intervention implementation were approached from the eight chosen schools from Rawalpindi and Islamabad. The teachers were chosen after a signed consent was obtained and then they were informed formally about the training of the LPC intervention. The training was done in the month of July 2022 and a post-evaluation form was obtained by all the teachers who received the training from the primary investigator of the study.

The data was collected from the students, right after the formal consents were received. In the first week of August, 2022; the students were initially screened. The initial screening form was a cluster of five measures: 1) Demographics, 2) Life Events Checklist, 3) Kessler Psychological Distress Scale, 4) The Child PTSD Symptom Scale and the Center for Epidemiologic Studies Depression Scale for Children. The Urdu versions of all these scales were used except for the demographics form which was constituted in English language. The initial screening or pre-

testing phase (T0) was called the pre-intervention delivery phase. During this phase, in the first week of August 2022, the students who were selected as the sample participant for the study were approached from 8 different schools of Rawalpindi and Islamabad. In the first two weeks of August 2022, the data was collected from the students belonging to the private schools of Rawalpindi region (cluster). The next two weeks of August 2022 were required to obtain pre-intervention delivery responses from the chosen students belonging to the private schools of Islamabad region (cluster). The data was collected mostly in the school halls where the forms were distributed among students and they completed the screening in 15-25 minutes. Most of the students were able to comprehend the items on the scales but they were assisted by the facilitators of the study whenever they had any query.

The forms were evaluated and the students who exhibited serious to extreme reaction to the trauma were chosen for intervention implementation. Based on the severity of the symptoms depicted by the students, the students who were less exposed to high risk of developing PTSD and other secondary outcomes were allocated to the control group. They were not received the intervention, although, the respective school administration were informed about their present situation and they were all referred to the student/school counsellors. After the implementation of the intervention, exactly after eight weeks, the students in both arms (intervention and control arm) were approach again for a post-intervention assessment. The same scales were distributed among all the 64 students and the T1 phase was completed in the first week of November 2022, right after the 5 weeks in which the teachers implemented the intervention on the students who were allocated to the intervention group. In the first week of December, the last phase which was the follow-up phase (T2) was conducted. The testing in the follow-up was completed in 8 days.

Eligibility

Inclusion Criteria. Before the initial screening, only those students were randomly selected who had been showing deterioration in academic performance and who had been behaving differently socially and emotionally. Only those students who fall in the age of 13 and 17 years were chosen irrespective of the gender.

Exclusion Criteria. The students were chosen after a multi-dimensional initial screening according to which if a student was less than 13 years, did not show any significant malfunctioning or deteriorated academic performance in the last 3 months, not exposed to trauma and the ones who were not referred by the school administration or any teacher from the school were excluded from the study. The students who were not willing to participate were excluded from the study.

Randomization and Masking

In this study, the unit of randomization was schools. All the selected schools were randomized on 1:1 allocation ratio by the researcher. In total, 10 schools were randomized out of which 8 schools were included in the study. The chosen schools were randomized into intervention and control arm (4 students in each arm) by a professional psychologist and statistics lecturer from Foundation University Rawalpindi Campus. The current study was

double blinded; only the researcher knew about the clusters receiving the intervention. Both the participants and intervention providers were masked throughout the study procedure. Other than researchers, the facilitators who delivered the intervention didn't even know about the results and outcomes of the study.

Intervention

Listen Protect Connect Model and Teach (LPC). Listen Protect Connect (LPC) is an early intervention program that was developed by Michael Schreiber, Robin Gurwitsch, and Dr. Marleen Wong in 2006. This is a set of strategies adopted from Psychological First Aid (PFA) which focuses primarily on children who have experienced a traumatic event or have experienced or witnessed violence. This intervention focuses on a pre-service teacher preparation which helps the educators and other people to help identify children who are traumatized to pre-stabilize their psychological stress. This is an evidence-based program which involves learning about coping strategies and mechanisms which can reduce psychological distress, depression, anxiety and PTSD symptoms within children (Wong, 2008). Listen Protect Connect intervention was introduced to prominently bridge the gaps which existed in delivering CBT and Trauma/grief informed psychotherapy. First and foremost, the LPC intervention addresses the gap of early intervention, through which the dreadful long-term effects of PTSD and depressive symptoms can be catered with. Secondly, LPC addresses another substantial gap with respect to the person who delivers intervention. Initially, all the method used for trauma-exposed children and adolescents involved the delivery through a mental health professional, but before the development of LPC intervention, there was not any intervention available which could be delivered through a non-mental health professional. Due to this milestone, LPC is considered an effective and positive outcome-oriented approach to deal with PTSD and depression in trauma-exposed children (Ruzek et al., 2007)

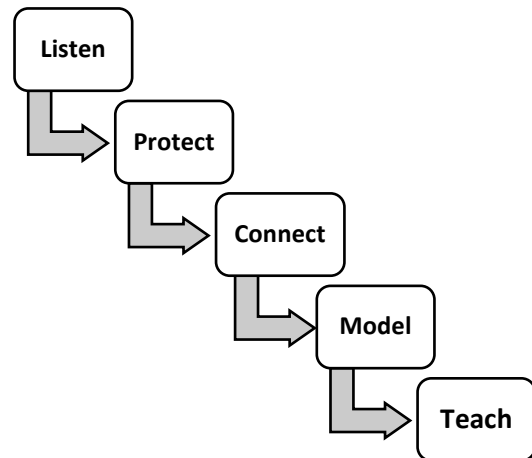
The present study focuses on the use of LPC intervention in school settings for early identification and reduction of symptoms of PTSD and depression among school students. A school-focused version of LPC based on Psychological First Aid (PFA) is used as a main training manual for teacher, educators, principals and school counsellors.

Steps of LPC intervention

LPC- Model and Teach intervention is mainly composed of 5 steps through which any non-mental health professional, most specifically the teachers in schools can concisely communicate and interact with students who have suffered a trauma. This communication consequently reduces the out-of-proportion stress among students exposed to trauma.

Figure 2

Steps of Listen Protect Connect- Model and Teach



Control Group. The students in the control group did not receive any intervention. However, it is to be noted here that the students who showed mild to moderate symptoms of trauma were included in the control group. Though, the students in the control group were equally assessed at all levels (pre and post-test). The students in the control group who needed psychological aid were referred to their particular school psychologist.

Outcome Measures

Life Events Checklist-5 (LEC-5). Life Events Checklist is a reliable self-report instrument that is extensively used to assess lifetime Trauma. This measure was created by staff at VA's National Center for PTSD in 2013. The LEC-5 measures exposure to 16 events that are known to have the potential to cause PTSD or distress and contains a 17th item that measures any other extremely stressful event that was not covered by the first 16 items. Initially designed to be used before the Clinician-Administered PTSD Scale for DSM-IV (CAPS), the LEC was created concurrently with the CAPS. As a standalone measure of traumatic exposure, the LEC showed adequate psychometric qualities, especially when assessing the consistency of events that occurred to a respondent (Gray et al., 2004). The widely used LEC-5 is the latest version of the Life Event Checklist which is developed for the fifth edition of DSM.

The Child Post-Traumatic Stress Disorder Symptom Scale-5 (CPSS-5). The CPSS-5 was developed by Edna B. Foa & Sandy Capaldi in 2013. The CPSS-5 is an instrument used to assess the diagnosis and severity of posttraumatic stress disorder in children aged eight to 18 over the previous month. It includes a trauma screening to evaluate the history of Criterion A traumatic experiences to identify an index trauma as well as a 27-item semi-structured interview with 20 questions to evaluate PTSD symptoms according to the DSM-5 and 7 questions to evaluate the impact of symptoms that have been endorsed on daily functioning. The CPSS-5 is completed in 10 minutes as a self-report and takes around 30 minutes to administer as an interview measure (by a clinician or therapist). CPSS has been translated into languages including English, Hebrew, Portuguese, Slovenian, Spanish, and Swedish (Foa et al., 2018).

Data Analysis

The data analysis was carried by SPSS version 22. A two-way MANOVA was used for analysis of variance. A two-way MANOVA analysis was conducted to simultaneously

test multiple dependent variables. The mean difference between two treatment arms was analyzed through multivariate analysis.

Results

Table 1 demonstrated the demographics and baseline characteristics of the 64 students who were allocated equally in the intervention and control arm and participated in the three-phasic assessment at pre, post, and follow-up stages. The LPC Model and Teach intervention was administered to 32 students in the intervention group. The rest of the 32 students did not receive any intervention. The analysis of the baseline data was done through the chi-square test which aided in examining the mean differences between the categorical demographic variables of the students distributed in two groups. Over three different periods (pre, post, and follow-up), a total of 64 students completed the post-trauma experience assessment. Approximately, 54.7% of the students were female between the ages 13–17 years and represented grades 6th through 10th. All 64 students completed a baseline assessment, an 8-week post-baseline assessment, and a one-month follow-up questionnaire. Most of the students were in grade 10th (26.6%, $n=51$) and 16 years of age (26.6%, $n=51$). Approximately 72% of the students were recruited from the schools in the Rawalpindi region and the rest were recruited from the schools in Islamabad. The academic functioning and the last academic record were also obtained in the demographic form by the students. Around 78.1% of the school administrators marked the academic functioning of the trauma-exposed students as academically average, while the last record of the students in percentage revealed that the majority of the participants (46.9%) obtained a percentage between 60-70% after the occurrence of the traumatic event. Around 84.4% of the students marked the duration passed after being exposed to the traumatic event as more than 6 months, while the students who marked the duration of occurrence of the traumatic event as less than 6 months were included in the control group since according to the criterion of the PTSD, the symptoms must be present among an individual for at least 6 months and more. The most marked category of trauma exposure by the students was trauma related to fear for their life, observing serious injury or the death of another person, accident, abuse, and bullying incident. More than 50% ($n=96$) of students marked this category of trauma while the least marked category was the trauma associated with home loss, family moves, changes in neighbourhoods, changes in schools, or loss of belongings. The most frequent present PTSD symptom marked by the students was changes in school-based activities (28.1%) and changes in mood/behaviour (25%).

The present study aimed to observe whether the symptoms of PTSD altered or decreased after the administration of the Listen, Protect, Connect, Model, and Teach intervention. The results from both groups (control and intervention group) were compared to find mean differences which were significant as depicted in Table 2. At the pre-assessment stage (T0), the students who showed extreme severity of PTSD were allocated to the intervention group, while the rest who showed relatively less severe symptoms of PTSD were allocated in the control group where no intervention was administered. After the intervention was applied for a period of 5-6 weeks to the

students in the intervention group, the students showed a significant decline in the symptoms of PTSD. However, the students in the control group who did not receive any treatment showed stability in the symptoms of PTSD at the post-assessment level (T1) due to the traumatic event. The mean differences among the different time intervals and the two groups (control and intervention group) overall showed improvement in the symptoms of PTSD in students who received the LPC intervention.

Post-Traumatic Stress Disorder. A one-way factorial ANOVA analysis was carried out to estimate the impact of the intervention on the PTSD, depressive and psychological distress symptoms in participants. The results revealed significant effects of the LPC Model and Teach intervention in the students allocated to the intervention group. The analysis revealed a significant small effect size for intervention in the group ($F=4.78$, $p=0.03$, $\eta^2p=0.02$), significant and large effect size for intervention in the time interval ($F=65.52$, $p=0.00$, $\eta^2p=0.41$) and significant medium effect size for intervention in the time*group interaction ($F=3.91$, $p=0.00$, $\eta^2p=0.06$). The students allocated to the control group who received no intervention did not show any significant improvement in the pre ($M=34.88$, $SD=6.96$) post ($M=23.34$, $SD=8.92$), and follow-up ($M=25.69$, $SD=8.60$) conditions. However, participants in the intervention group showed a significant decrease in PTSD symptoms in the participants through repeated measures; pre ($M=38.88$, $SD=6.96$), post ($M=25.84$, $SD=13.03$), and follow-up ($M=23.09$, $SD=9.73$). The symptoms of PTSD showed relatively stable patterns in the post and follow-up condition since the period of one month, no treatment was provided for the reduction of PTSD symptoms.

Figure 3 indicates the effect of the Listen Protect connect Model and Teach intervention on the students allocated in the intervention group. The figure shows that after the implementation of the intervention, the children showed a significant decline in their PTSD symptoms, whereas, the children allocated to the control group did not reveal any significant differences or reduction in their PTSD symptoms. The symptoms of PTSD improved slightly during the follow-up testing (T2) condition in the intervention group, however, the symptoms of PTSD increased in the control group. The figure clearly represents the effectiveness of the intervention in reducing the symptoms of PTSD among children.

Figure 3

Diagrammatic representation of estimated marginal means of The Child PTSD Symptom Scale Urdu Version.

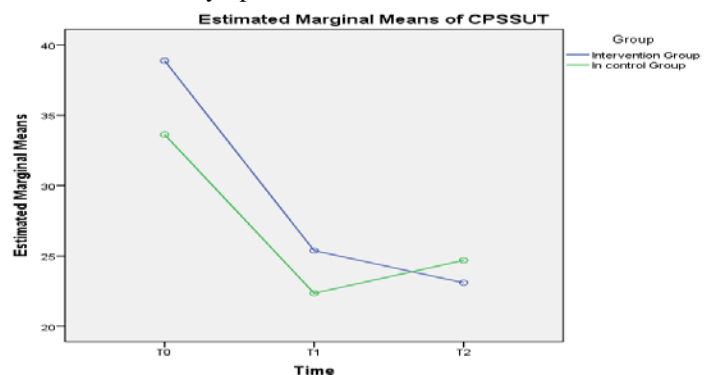


Table 1

Mean differences between the control group and LPC intervention group on Child PTSD symptom Scale (N=64).

	LPC intervention group (n=32)			No treatment (control group) (n=32)		Group			Time			Group*time			Mean difference (95% CI)	
	α	M	SD	M	SD	F	p	η^2_p	F	p	η^2_p	F	p	η^2_p	UL	LL
CPSS																
Pre (T0)		38.88	6.96	33.62	9.20	4.78	.03	.02	65.5***	.00***	.413	3.91	.00	.06	34.509	37.991
Post (T1)		25.38	6.46	32.34	5.92										22.118	25.601
FU (T2)		23.09	6.73	34.69	6.60										22.149	25.632

Note. Mean difference of symptoms of PTSD in children between T0 (pre-testing), T1 (post-testing), and T2 (follow-up) in the control and intervention group (N=64). CPSSUT= Child PTSD symptom Scale-Urdu version Total

Discussion

Disasters disproportionately harm children, both immediately and long-term, especially in underdeveloped nations. Due to their lack of resources, inadequate preparation, and lack of awareness of their potential, children in rural areas are more likely to experience hardship. While many kids still ask their parents or other adults for assistance in emergencies, a child's attitude, awareness, and level of preparedness are just as crucial (Shah et al., 2022). Schools must swiftly implement crisis intervention programs to support traumatized students in the wake of recent tragedies and trauma-triggering incidents, such as the COVID-19 epidemic, flood conditions, political outbursts, political activities that cause closure of roads and thus, schools, and individual traumas faced by students. One of the worst monsoon seasons for Pakistan in more than ten years has already claimed the lives of more than 1100 people and affected three million more (Bhamani, 2022). The National Child Traumatic Stress Network recommends Psychological First Aid (PFA) as a sort of crisis intervention. It is a potential strategy, although it is not yet supported by valid and widely approached research (Ramirez et al., 2013). The present study is the first evaluation of Listen Protect Connect (LPC), a school-based specialization of Psychological First Aid, in Pakistan.

The results of the study revealed that the LPC intervention was well-received by interventionists who were basically teachers and by the students on whom the intervention was implemented. Moreover, even in this study, which has a limited sample size, LPC has shown some encouraging signs of efficacy and effectiveness. The adoption of the intervention on the students reduced the symptoms of PTSD and also enhanced academic performance and school attendance. The reduction in PTSD symptoms over time—despite being only considerably significant, suggests a degree of impact appropriate for an early intervention program provided in a single interaction. LPC acts as the first protective barrier for students by offering temporary reprieve with a dependable adult in school. These results are remarkable in light of the same PTSD reductions reported by more sophisticated school-based therapies for children who have been traumatized by pandemics, natural disasters, floods, violent circumstances, or personal traumatic events (Cao et al., 2022; Ramirez et al., 2013; Goenjian et al., 2005; Stein et al., 2003).

Through the findings of the present study, the particularly noteworthy outcome was the marked reduction in PTSD symptoms that were observed in students after receiving LPC treatment. On the one hand, findings might have been the consequence of a normal return to the mean or any other uncontrolled external variable, particularly the time that had gone since the trauma exposure. However, it is indeed possible that LPC certainly helped with PTSD symptoms. If LPC had no impact, PTSD symptoms would have either gotten worse after the pre-testing period T0 or stayed about the same as they were at baseline assessment T0. Between the pre-testing and post-testing intervals, PTSD symptoms were also observed to slightly but significantly reduce. Despite these positive results, it is obvious that a substantial trial is required to gather additional proof of LPC's efficacy and the optimal dosage for maximum effects.

Finally, the present study aimed primarily to evaluate the effectiveness and acceptability of a school-focused intervention based on psychological first aid. The effectiveness and acceptability of the intervention has not been evaluated in LMICs specifically in Pakistan. The study also directed the focus on the use of an intervention for school students exposed to a traumatic event which has harmless effects; contrary to psychological debriefing. If carried out as directed, psychological debriefing entails in-depth questioning and probing of the traumatic event between 48 and 72 hours after exposure. Psychological debriefing was not found effective in the literature since it failed to reduce post-traumatic stress in two randomized trials, and it has been suggested that the in-depth questioning needed in debriefing may cause re-traumatization (McWey, 2022; Ramirez et al., 2013; Stallard et al., 2006; Hobbs et al., 1996). The LPC intervention employs reflective listening without an in-depth interrogation and hence, is an effective intervention for the children and adults exposed to a traumatic event. Our findings demonstrated that the LPC intervention does not trigger or further harm the children mentally or emotionally; rather, it helps identify trauma and associated distress, provides temporary relief, and, when required, based on the severity of the symptoms, the children are referred to the advance care systems (Fernandez-Canani et al., 2022; Ramirez et al., 2013).

Conclusion

The psychological first aid (PFA) strategy to cope with post-traumatic stress in schools is desperately required and is an effective way to alleviate post-traumatic reactions, including symptoms of PTSD, depression, psychological distress, academic deterioration, and school absenteeism. The administration of the LPC intervention without the need for a mental health professional was the key focus of the current study, which is undoubtedly an asset of this intervention. Psychologists and other mental health professionals are insufficiently represented in a nation where mental health issues are prevalent and getting worse every day. The study's significant and encouraging findings are crucial because, with a bigger sample size and more diverse demographics, they can lead to the formalization of a trauma-informed care system in Pakistani schools, alleviating the suffering of the students. The study generated beneficial psychosocial consequences, and the findings will serve as a foundation for future research into developing a national, culturally appropriate remedy for traumatized students. Children spend a substantial part of their day in school, where teachers and other staff members help with both their daily learning and personality development. A platform like this, where a youngster spends a large portion of his day, is essential in encouraging teachers and other staff members to support a child in coping after being exposed to a traumatic incident. The trauma's aftereffects may be terrible and protracted. If the post-traumatic stress symptoms of the children are addressed and treated before or during adolescence, it is likely that the trauma will not continue to fester and, as a result, won't have detrimental consequences in the adulthood.

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Ethical Consideration

The study was approved by Department of Psychology, Foundation University School of Science and Technology, Pakistan. Consent Form was taken before taking data and participants were asked to take voluntary participation.

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Availability of data and materials

The data sets used and analyzed during the current study are available from the corresponding author on reasonable request. Not applicable.

Authors' contributions/Author details

Anam Tariq performed this study under the supervision

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Ethics declarations

Ethics approval and consent to participate

This study was approved by the Institutional Review Board of Department of Psychology, Foundation University School of Science and Technology, Pakistan. A written informed consent was obtained from all participants.

Consent for publication

Not applicable.

Competing interests

The authors declare to have no competing interests.

Additional Information

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