Check for updates

Clinical Psychology & Psychotherapy

WILEY

RESEARCH ARTICLE OPEN ACCESS

Effectiveness of a Parent–Child Interaction Therapy-Based Trauma-Focused Interaction Module for Trauma-Exposed Children: A Pilot Randomized Controlled Trial

Fatmanur Çimen[1,2] | İsmail Seçer[1,2]

[1]Department of Psychological Counselling and Guidance, Atatürk University, Erzurum, Türkiye | [2]Leopoldina PCIT Research and Practice Center, Erzurum, Türkiye

Correspondence: Fatmanur Çimen (f.cimen@atauni.edu.tr)

Received: 30 January 2026 | **Revised:** 11 March 2026 | **Accepted:** 18 March 2026

ABSTRACT

Background: Despite the high prevalence of posttraumatic symptoms in early childhood, there remain significant gaps in clearly defined or widely accepted treatments specifically adapted for young children. This shortcoming highlights the urgent need for developmentally sensitive, evidence-based psychological interventions targeting children who have experienced trauma during early childhood.

Objective: This study aimed to develop a Trauma-Focused Interaction module integrated into Parent–Child Interaction Therapy (TFI-PCIT) and to preliminarily evaluate its effectiveness in reducing trauma-related symptoms and behavioural difficulties in traumatized children aged 2–8 years, as well as its impact on parental stress and burnout.

Method: A fully integrated mixed-methods randomized controlled design was employed. A total of 19 parent–child dyads were assigned through stratified block randomization to an intervention group ($n = 9$) or control group ($n = 10$). The intervention group received the TFI-PCIT module, while the control group received no intervention during the study period. Between-group differences were analysed using linear mixed models, and within-group changes were examined with independent samples *t*-tests. Postintervention qualitative interviews were conducted to deepen interpretation of outcomes.

Results: Compared to controls, children who received TFI-PCIT demonstrated statistically significant reductions in trauma symptoms and behavioural problems. Parents in the intervention group showed significant decreases in parenting stress and burnout. Qualitative findings reinforced quantitative results, indicating improved emotional regulation and strengthened parent–child interactions.

Conclusion: These findings provide preliminary evidence that TFI-PCIT may be a promising, developmentally sensitive intervention for young traumatized children and their caregivers.

1 | Introduction

Trauma refers to exposure to an extraordinary event that disrupts an individual's emotional, cognitive and behavioural integrity and threatens life or physical safety. One of its most common and potentially long-lasting consequences is posttraumatic stress disorder (PTSD). According to the DSM-5 (APA 2014; Garland 2018; Bryant 2019), PTSD is characterized by trauma exposure, intrusive re-experiencing, persistent avoidance, negative alterations in cognition and mood and heightened arousal lasting longer than 1 month. PTSD is highly prevalent among young children. A meta-analysis by Woolgar et al. (2022) reported a prevalence rate of 21.5% among trauma-exposed preschoolers. Similarly, Çimen et al. (2025) found that 2 years

This study is based on the PhD thesis of the first author.

This is an open access article under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.

© 2026 The Author(s). *Clinical Psychology & Psychotherapy* published by John Wiley & Sons Ltd.

Summary

- Early intervention matters: Trauma-focused interventions adapted for children aged 2–8 can effectively reduce trauma-related symptoms and behavioural difficulties, highlighting the importance of addressing trauma early in development.
- Parent involvement is crucial: Integrating caregivers through TFI-PCIT not only benefits the child but also significantly reduces parental stress and burnout, supporting caregiver well-being.
- Guides clinical decision-making: These findings can inform clinicians in selecting developmentally appropriate interventions and in planning the level of caregiver involvement necessary for optimal outcomes.

after an earthquake, 26.0% of children and adolescents exhibited moderate and 43.8% exhibited high levels of PTSD symptoms.

Professional guidelines emphasize that trauma treatment in early childhood should integrate comorbid conditions, prioritize trauma-focused psychotherapies and actively involve caregivers (Willheim and Schechter 2025). Parent involvement is particularly critical because trauma often disrupts the parent–child relationship and alters parenting behaviours. Caregivers may respond to trauma-related behaviours with harsh discipline or reduced emotional support (Chaffin et al. 2004). However, strengthening the parent–child relationship can function as a protective buffer against trauma-related difficulties (Chaffin et al. 2011; Cinamon et al. 2021). Effective parent-inclusive interventions commonly include psychoeducation about trauma, strategies to enhance children's emotion regulation and safety, modelling of supportive parenting behaviours and promotion of secure attachment (De Young et al. 2011). These components are grounded in attachment theory and social learning principles, suggesting that changes in parental responsiveness and modelling lead to improvements in child behaviour and emotional functioning (Tavkar and Hansen 2011; De Young et al. 2011).

Several evidence-based parent–child interventions have been developed for traumatized children. Trauma-Focused Cognitive Behavioural Therapy (TF-CBT) is widely recognized as a first-line treatment and includes structured trauma processing components summarized under the PRACTICE model (Cohen and Gadassi 2018). Although TF-CBT has demonstrated effectiveness in reducing PTSD symptoms and comorbid difficulties across childhood and adolescence (Canale et al. 2022; Gusler et al. 2023; Thielemann et al. 2022; Xian-Yu et al. 2022), preschool children may lack the cognitive and verbal capacities required for some CBT components, limiting its developmental suitability (Gigengack et al. 2015; Morina et al. 2016). Child–Parent Psychotherapy (CPP), grounded in attachment theory, has strong empirical support for young children exposed to trauma (Lieberman et al. 2005; Lieberman et al. 2015). However, CPP typically extends over 10–12 months and lacks a highly structured, skill-based protocol with objective mastery criteria (Reyes et al. 2017). Attachment and Biobehavioral Catch-Up (ABC) has demonstrated strong evidence for infants up to 24 months, improving attachment security and emotion regulation (Dozier and Bernard 2017; CEBC 2021). Nevertheless, its application is limited to very young children. Child–Parent Relationship Therapy (CPRT) has shown benefits in enhancing parent empathy and reducing problem behaviours (Carnes-Holt and Bratton 2014; CEBC 2021), yet it is not trauma-specific and may be insufficient for addressing trauma-related dysregulation (McLaughlin et al. 2012; Kerns et al. 2014). EMDR and play therapy are also widely used in practice; however, evidence for children under seven remains limited, and these approaches do not consistently integrate structured parent training components (Perilli et al. 2019; Cohen and Gadassi 2018). Collectively, although multiple interventions exist, there remains a need for a brief, structured, trauma-informed, parent-coached intervention specifically tailored to children aged 2–8.

Parent–Child Interaction Therapy (PCIT) is a well-established, parent-coaching intervention developed for children aged 2–8 with internalizing and externalizing problems (Eyberg and Funderburk 2011). PCIT is grounded in attachment theory and social learning theory. Through Child-Directed Interaction (CDI), it enhances parental warmth, sensitivity and secure attachment. Through Parent-Directed Interaction (PDI), it applies principles of modelling, reinforcement and consistent discipline to reduce disruptive behaviour (Eyberg and Funderburk 2011; Batzer et al. 2018). Studies indicate that PCIT is effective for traumatized children in reducing behavioural difficulties (Eslinger et al. 2015; Allen et al. 2016; Hawk et al. 2020; Graziano et al. 2023). However, standard PCIT does not directly process trauma memories and lacks explicit trauma-focused components, leading to criticism that it is not a distinct trauma treatment (Warner-Metzger and Funderburk 2021). Existing trauma-adapted PCIT applications are limited. Gurwitch and Warner-Metzger (2022) introduced a Trauma-Directed Interaction (TDI) module tested in a single-case design, while Seçer et al. (2026) developed TND-PCIT for children exposed specifically to natural disasters. These adaptations are either methodologically limited or context-specific, leaving a gap for a developmentally sensitive, broadly applicable trauma-focused module integrated within PCIT.

Addressing this gap is clinically and theoretically important. A structured Trauma-Focused Interaction (TFI) module embedded within PCIT may combine the relational strengths of attachment-based approaches with the behavioural skill acquisition principles of social learning theory, while explicitly targeting trauma symptoms. Such an approach may not only reduce children's trauma symptoms and behavioural problems but also decrease parental stress and burnout by enhancing parenting competence and strengthening parent–child interaction (Chaffin et al. 2011; Tavkar and Hansen 2011).

Accordingly, the present study aims to evaluate the effectiveness of a newly developed TFI module integrated into PCIT for traumatized children aged 2–8. It is hypothesized that:

Hypothesis 1. *The PCIT-TFI module will have a significant positive effect on children's trauma symptoms, behavioural problems, adjustment and emotion regulation.*

Hypothesis 2. *The PCIT-TFI module will significantly reduce parental stress and parental burnout.*

10990879, 2026, 2, Downloaded from https://onlinelibrary.wiley.com/doi/10.1002/cpp.70263 by Turkey Cochrane Evidence Aid, Wiley Online Library on [11/04/2026]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

2 | Method

2.1 | Study Design and Procedure

Ethical approval for the study was obtained from the Ethics Committee of Atatürk University (approval date/no: 2024, 04/03). In addition, formal permission was obtained to conduct screening procedures in preschool education institutions affiliated with the local education authorities and in Healthy Life Centers (HLCs) operating under the local health administration, from which the parent participants were recruited. These institutions were selected because they provide psychological counselling and support services to parents and families, ensuring access to individuals meeting the study criteria. Written informed consent was obtained from parents or primary caregivers, and verbal assent was obtained from children when developmentally appropriate. All data were anonymized and stored securely to ensure confidentiality.

This study was conducted with two groups: an experimental group and a control group, with traumatized children and their parents randomly assigned to each. While the TFI-PCIT module was administered to the experimental group, no intervention was applied to the control group. Following the completion of the experimental process, the intervention was also offered to parents in the control group who were willing to receive it. The study employed a randomized controlled trial (RCT) design, ensuring high validity and reliability of the findings.

Prior to data collection, meetings were conducted with institutional administrators to explain the purpose and procedure of the study and to obtain approval for recruitment. Following institutional approval, informational meetings were held with parents who were referred by these institutions. During these meetings, participants were informed about the study, provided written consent and completed the assessment measures. Based on the predefined inclusion and exclusion criteria, eligible participants were randomly assigned to either the experimental or control group. The experimental process of this study, which was designed in accordance with the RCT model, is visualized below (Figure 1).

Participants in the experimental group who completed the pretest assessment began the intervention in the following week. After the completion of the intervention, the post-test assessment was conducted. No intervention was applied to the control group; however, participants in this group took part in pre-intervention and postintervention assessments at the same time points as families in the active treatment conditions, following the completion of their own pretest assessments. Four weeks (1 month) after the post-test assessment, follow-up measurements were collected from the parents. After the conclusion of the experimental procedure, participants in the control group were informed that they could receive the intervention if they wished to do so voluntarily.

2.2 | Participants

Because PCIT requires the active participation of both the parent (or caregiver) and the child, separate eligibility criteria were established for each.

2.2.1 | Parent/Caregiver Eligibility Criteria

- The parent has not previously participated in any program equivalent to PCIT.
- PTSD symptoms below the clinical threshold, determined by a score below 47 on the PTSD Checklist for DSM-5 (PCL-5). This cut-off was used to ensure parents could engage consistently in therapy without interference from clinically significant PTSD symptoms
- The parent is able to attend in-person therapy sessions.
- The parent does not have any psychiatric condition or treatment process that would impair their functionality.
- The parent has no special condition that could hinder or prevent participation in therapy.
- Importantly, the participating caregiver was not the perpetrator of the child's trauma.

Additionally, for ethical and clinical safety reasons, ongoing traumatic exposure within the home was assessed prior to treatment initiation. Families were included only if the traumatic situation had ceased and the child's living environment was considered stable and safe.

2.2.2 | Child Eligibility Criteria

The criteria for selecting traumatized children to be included in the study are as follows:

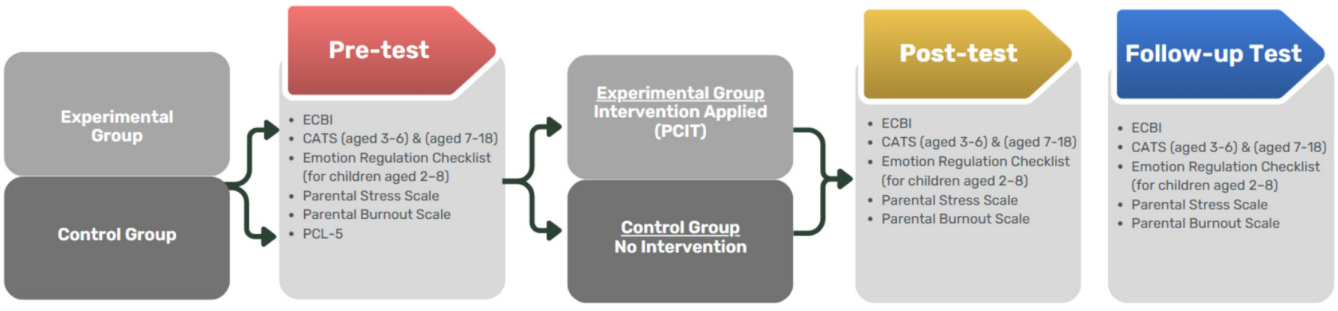


FIGURE 1 | Experimental procedure flow.

10990879, 2026, 2, Downloaded from https://onlinelibrary.wiley.com/doi/10.1002/cpp.70263 by Turkey Cochrane Evidence Aid, Wiley Online Library on [11/04/2026]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

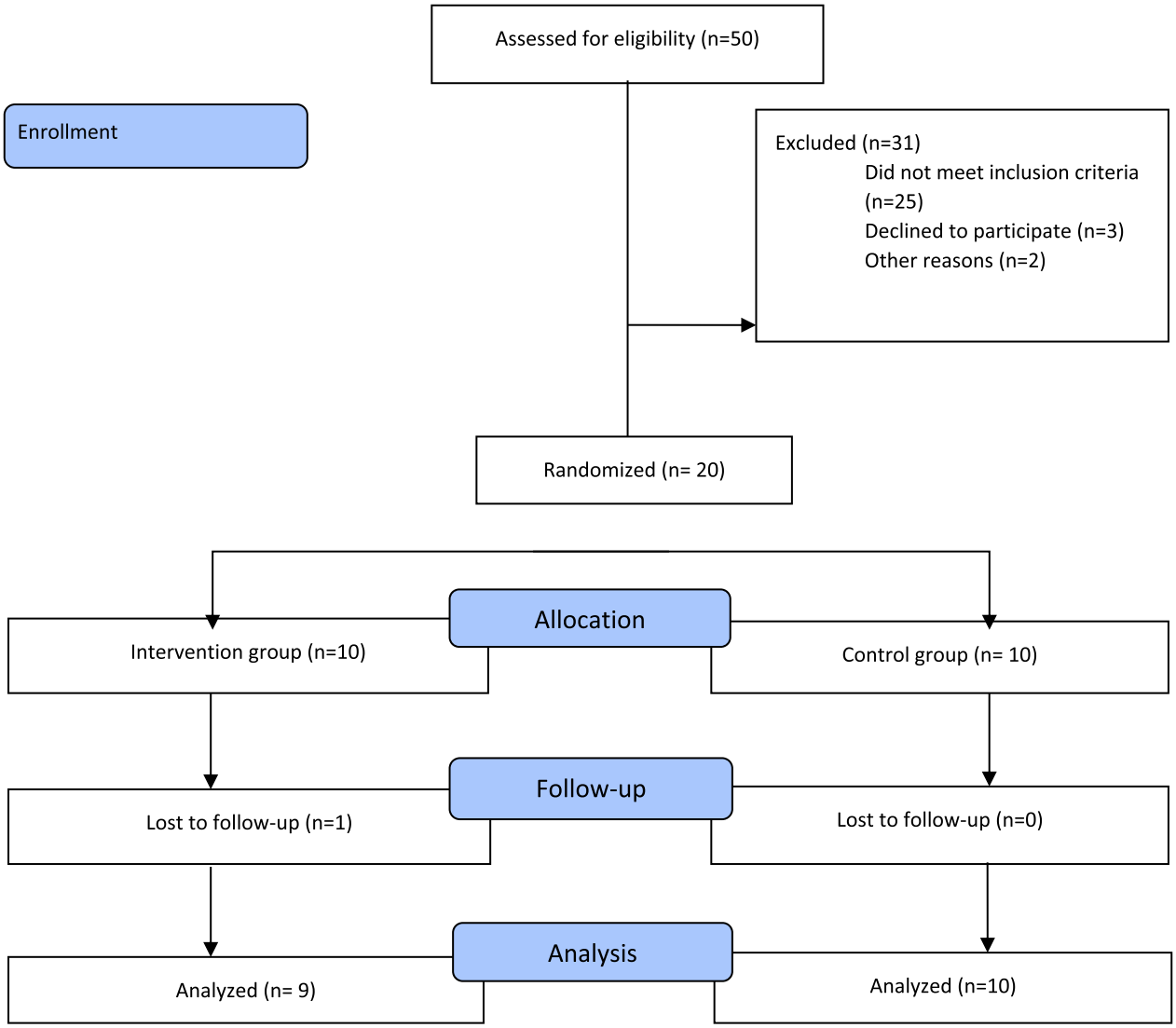


FIGURE 2 | CONSORT flow diagram.

- Being between the ages of 2 and 8
- Exhibited trauma-related symptoms and scored above 12 on the Child and Adolescent Trauma Screen—Caregiver Version (3–6 age form) or above 21 on the 7–18 age form. These cut-offs correspond to clinically significant trauma symptomatology and were used to identify children in need of trauma-focused intervention.
- Having no developmental disorders (e.g., autism spectrum disorder, intellectual disability and Down syndrome)
- Possessing social and communicative skills sufficient to express themselves.
- Not participating in any other program that is similar or equivalent to PCIT in content

Information regarding type, recency and chronicity of trauma was collected through structured caregiver interviews prior to inclusion. The primary trauma types included loss/bereavement, parental divorce, exposure to domestic violence and other family-related adverse events. Only cases in which the traumatic exposure had ended were included in treatment. Participants were admitted to treatment between February 2024 and August 2024. The participant recruitment and inclusion process is presented in the CONSORT Flow Diagram (Figure 2).

2.3 | Randomization

In assigning participants to groups, stratified randomization was first employed, followed by block randomization. Stratified randomization is used to ensure balance between groups in terms of key participant characteristics and to control for the effects of confounding variables. Due to the limited sample size, stratified randomization by child gender was not feasible.

Since this study was conducted with traumatized children, the level of trauma symptom scores was considered a potential confounding variable, and stratified randomization was used to control for its effect. Accordingly, measurement results from the CATS assessment were used as a reference in

10990879, 2026, 2, Downloaded from https://onlinelibrary.wiley.com/doi/10.1002/cpp.70263 by Turkey Cochrane Evidence Aid, Wiley Online Library on [11/04/2026]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

the randomization process (based on the predetermined cut-off scores: for ages 3–6, 12–15 and 15+; for ages 7–17, 15–20 and 21+, forming two levels). Subsequently, block randomization was used to calculate all possible balanced combinations of participants within each group, and blocks were randomly selected to assign all participants to their respective groups. Block randomization is designed to randomly assign participants into groups of equal sample sizes, with the block size determined by the researcher. Until the intervention began, participants were not informed of their group assignment, thereby maintaining allocation concealment. Therapists were not blinded to group assignment.

2.4 | Therapist Training

The intervention was delivered by two certified PCIT therapists (the first and second authors). Both authors initially completed a 10-module online PCIT training programme to qualify as therapists. Following this, they participated in 40 h of theoretical and practical PCIT training and successfully completed two PCIT cases. The second author obtained the Certified PCIT Therapist credential from PCIT International on 31 March 2022, and the first author received the same certification on 14 September 2022. In addition, the second author holds the title of Certified PCIT Trainer from PCIT International and is actively involved in training PCIT therapists. To further enhance clinical expertise, the second author served as a visiting researcher at the University of Würzburg under the supervision of regional PCIT trainer Med. Dr. Wolfgang Briegel. The first author conducted and successfully completed their cases under the supervision of the second author. Throughout the intervention process, regular weekly supervision meetings were held under the supervision of the second author (Certified PCIT Trainer).

2.5 | PCIT-Based TFI-PCIT Module

2.5.1 | Material/Content

The PCIT intervention, implemented based on the standard PCIT protocol, also begins with the CDI phase. In this phase, parents who meet the specified competency criteria proceed either to the TFI or the PDI phase. Children with high levels of behavioural problems and low levels of compliance move on to the PDI phase, while children with fewer behavioural problems and higher compliance levels transition to the TFI phase. Therefore, the phase a child enters after CDI may vary depending on the level of compliance. In PCIT, the PDI phase, which includes effective discipline techniques, is applied to increase compliance in children with behavioural problems. For traumatized children who exhibit high levels of behavioural problems, transitioning to the TFI phase, which involves trauma-focused content and requires the child to follow parental directives, may lead to noncompliance and lack of participation in activities due to their low level of compliance. This situation can negatively affect the implementation of activities in the TFI phase. Therefore, it becomes evident that in traumatized children with low compliance, behavioural problems should first be addressed to increase their compliance level.

The most important distinction of the TFI phase compared to other phases is its trauma-focused nature. Parents who do not reach this level of proficiency in an activity cannot proceed to another activity and must repeat the relevant session. Additionally, unlike other phases, the TFI phase is not time-limited; it is completed only when parents meet the established criteria, at which point they move on to the next phase. Information regarding the content and progression of the module is presented in the Appendix (see Table A1). The detailed description of the stages included in the TFI-PCIT module is provided in Appendix (see Table A2).

2.5.2 | Implementation of the Module

The TFI-PCIT intervention was implemented according to the standard PCIT protocol, with the TFI phase focusing on trauma-specific parent–child interactions. The child's level of compliance was determined using the Eyberg Child Behaviour Inventory (ECBI) Intensity and Problem scales, parent reports and therapist evaluation. For example, children scoring above 114 on the ECBI Intensity scale were considered to exhibit significant problem behaviours and were directed to the PDI phase. Sessions were individualized based on child behavioural compliance and parent progress. Session frequency, duration and total intervention length for each case are detailed in Table A5. Therapist training, supervision and fidelity checks were maintained using DPICS-4 (Dyadic Parent–Child Interaction Coding System—Fourth Edition), PDI Coding Sheet and TFI-specific checklists to monitor adherence and competence.

Once parents are deemed suitable for participation in therapy, an instructional session is scheduled at an appropriate date. During this session, information is provided to the parent or parents about the phase they will attend with their child, and the skills expected to be practiced by the parent are explained and demonstrated through modelling. Following the initial instructional session, PCIT sessions begin with the CDI phase. Sessions continue until the parent reaches the competency criteria in the PRIDE (Praise, Reflection, Imitation, Description and Enthusiasm) skills. When the parent meets these criteria, both the child and the parent are assessed by the clinician to determine whether the therapy should proceed to the TFI or PDI phase. At this point, the child's behavioural problems serve as a key criterion. If the child completing the CDI phase is evaluated as having intense behavioural problems and low compliance, the PDI phase is initiated first, followed by the TFI phase. However, if the child is assessed as having low levels of behavioural problems and a high level of compliance, the TFI phase is applied directly after CDI. If necessary, the PDI phase may be implemented following the TFI phase. The child's level of compliance is determined by jointly considering measurement results obtained from the parent (ECBI Intensity and ECBI Problem scales), parent reports and the therapist's evaluation. Depending on the progress of the child and the parent, the TFI phase may last between four and seven sessions. The PDI phase also begins with a one-session instructional meeting. Sessions continue until the parent learns effective discipline strategies and meets graduation criteria. To evaluate whether the parent has met the expertise

10990879, 2026, 2, Downloaded from https://onlinelibrary.wiley.com/doi/10.1002/cpp.70263 by Turkey Cochrane Evidence Aid, Wiley Online Library on [11/04/2026]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

criteria, session-specific forms with differentiated content are used. These forms used across the CDI, PDI and TFI phases can be seen in Appendix (see Table A3).

The level of progress demonstrated by the parent throughout the sessions is monitored using the DPICS-4 tool during each session. Additionally, in the PDI phase, the PDI Coding Form is used to assess parental competence, while in the TFI phase, specially developed checklists are employed to evaluate the parent's proficiency in implementing the activities. For a parent to be considered successful in the CDI phase, they must use at least 10 instances of the target skills—behaviour description, labelled praise and reflection—while using no more than 3 instances of the undesirable skills: questions, commands and critical talk. In the PDI phase, the commands given by the parent must possess the characteristics of effective commands, and the child must comply with at least 80% of these commands. In the TFI phase, to be deemed competent in the taught activities, the parent must not skip any required skill, must not receive a "not competent" label for any of the implemented skills and must receive a "competent" rating in at least 80% of the listed items. Coding was performed independently by two trained evaluators, and inter-rater reliability for content coding was 85%. Graduated parents are periodically invited to follow-up sessions for further assessment.

2.6 | Data Collection Tools

2.6.1 | DPICS-4

It is the standard coding form used in every phase of the PCIT therapy process. The form consists of two sections that record both desired skills and undesired skills. It is applied during the first 5 min of each session to determine the parent's level of skill use and to assess whether therapeutic goals are being met.

2.6.2 | Checklist Forms for the TFI Phase

These are coding forms developed by the researcher and used exclusively during the TFI phase of the PCIT therapy process. There are six different observation checklists used in this phase: 'Colour Breathing Checklist, Emotion Support Session Checklist, Safety Perception Strengthening Session Checklists 1 and 2, Sands of Time Checklist and Let's Stay Inside Together Checklist'. These checklists contain items that indicate whether the parent successfully performed the required skills during the implementation of trauma-specific activities in the TFI phase. The Sands of Time Checklist includes 16 items, the Let us Stay Inside Together Checklist contains 17 items and the Colour Breathing Checklist and Emotion Support Session Checklist each consists of 15 items. Lastly, both Safety Perception Strengthening Session Checklists 1 and 2 include 13 items. All forms within the TFI module share a common rating structure that assesses the parent's execution of skills across three categories: adequate, needs improvement and inadequate.

2.7 | Data Collection Tools in Child Dimension

2.7.1 | Eyberg Child Behaviour Inventory (ECBI)

The ECBI is a 36-item parent report scale used to assess behavioural problems in children with behaviour-related difficulties. It is applied throughout the entire treatment process and serves as a measure of the child's behavioural changes and thus the therapeutic progress achieved (Eyberg and Pincus 1999). The scale consists of two sections: Intensity and Problem. In the Intensity section, the severity of problem behaviours is rated on a scale from 1 to 7 (1: *never*, 7: *always*). The Problem section is a checklist where parents indicate whether each behaviour is a problem for them (yes/no). The adaptation study for Turkish culture was conducted with a sample of 812 children, and the scale was found to be a valid and reliable assessment tool (Seçer and Ulaş 2022).

2.7.2 | Weekly Assessment of Child Behaviour-Parent Report (WACB-P)

The WACB-P is a brief parent report measure developed to help monitor externalizing problems in children. The scale consists of nine items rated on a 7-point Likert scale and is used by parents to report on their child's compliance behaviours. In this regard, it is utilized starting from the PDI phase—where discipline skills are taught—until the end of therapy (Timmer et al. 2021).

2.7.3 | Child and Adolescent Trauma Screen—Caregiver Version (CATS-C) (Ages 3–6 and 7–18)

The scale, developed by an international working group, has been made openly accessible for researchers around the world to use freely and without licence (Sachser et al. 2017). The Turkish adaptation for ages 3–6 was conducted by Akkuş et al. (2021), and the adaptation for ages 7–18 was conducted by Çimen et al. (2025). PTSD symptoms are measured with 20 items in a 4-point Likert format. The reliability analysis (Cronbach's alpha) values for the four subdimensions of the scale were found to be $\alpha = 0.73$, $\alpha = 0.62$, $\alpha = 0.62$ and $\alpha = 0.74$, respectively. Finally, the overall reliability value of the scale was reported as $\alpha = 0.86$ (Akkuş et al. 2021). For the version for ages 7–17, Cronbach's alpha reliability values for the subdimensions were found to range between 0.72 and 0.91, and it was reported to have good construct validity (Çimen et al. 2025).

2.7.4 | Child Emotion Regulation Scale-Parent Form

This is a parent report scale developed by Shields and Cicchetti (1997) and adapted into Turkish by Altan (2006). The scale consists of two subdimensions: lability/negativity and emotion regulation. It includes 24 items rated on a 4-point Likert scale (1: *rarely*, 4: *generally*). Analyses revealed that the reliability coefficients were high for the lability/negativity ($\alpha = 0.96$) and emotion regulation ($\alpha = 0.83$) subdimensions, as well as for the overall scale ($\alpha = 0.84$).

10990879, 2026, 2, Downloaded from https://onlinelibrary.wiley.com/doi/10.1002/cpp.70263 by Turkey Cochrane Evidence Aid, Wiley Online Library on [11/04/2026]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

2.8 | Data Collection Tools Used in the Parent Dimension

2.8.1 | Parenting Stress Index

Originally developed by Abidin (1983) to assess stress within the parent–child system, the scale was adapted into Turkish by Mert et al. (2007). The scale consists of three subdimensions: parental distress, parent–child dysfunctional interaction and difficult child. It includes 36 items rated on a 5-point Likert scale (1: *never*, 5: *always*). Statistical analyses showed that the internal consistency reliability coefficients were sufficient for the subdimensions, parental distress (0.81), parent–child dysfunctional interaction (0.76) and difficult child (0.78), as well as for the overall scale (0.71). As a result, it has been reported that the scale is appropriate for use in identifying parental stress levels in Turkish culture.

2.8.2 | Parental Burnout Scale

The scale used to assess the burnout levels of the parents participating in the study was developed by Roskam et al. (2018) and adapted into Turkish by Arikan et al. (2020). The scale consists of four dimensions and includes 23 items rated on a 7-point Likert scale (0: *never*, 6: *every day*). The adaptation study reported that the model fit indices of the scale were adequate. In addition, reliability analyses showed that the internal consistency value for the overall scale was $\alpha = 0.90$, and for the subdimensions, it ranged between 0.50 and 0.84. Therefore, the scale has been reported as a valid and reliable measurement tool in the Turkish cultural context (Arikan et al. 2020).

2.8.3 | Posttraumatic Stress Disorder Checklist for DSM-5 (PCL-5)

The scale that assesses PTSD symptoms based on DSM-5 was adapted into Turkish by Boysan et al. (2017). It consists of 20 items rated on a 5-point Likert scale (0: *not at all*; 4: *extremely*) and includes 4 subdimensions. In the adaptation study, the reliability coefficients for all subdimensions were reported to be sufficient: re-experiencing (0.79–0.92), avoidance (0.73–0.91), negative alterations in cognition and mood (0.85–0.90) and hyperarousal (0.81–0.88). The scale measures symptoms experienced in the past month and scores range from 0 to 80. The cut-off score for a PTSD diagnosis was determined by the authors as 47 points (Boysan et al. 2017).

2.9 | Data Analysis

During the experimental phase, data obtained from parent reports were analysed step by step. In this context, the first step was to examine whether the intervention and control groups differed in terms of initial demographic characteristics and initial dependent variable measurements using independent samples *t*-tests (for continuous measures) and chi-square tests (for categorical measures). The clinical significance of differences between phases was evaluated using Cohen's *d*. The following thresholds were used for interpreting effect size: "0.20 = small; 0.50 = medium; 0.80 = large" (Cohen 1988). This analysis aimed to assess whether randomization was successful between the intervention and control groups. Since there were no missing values in the dataset, missing data analysis was not conducted. Linear mixed-effects models (LMM) were employed to examine changes over time (pretest, post-test and follow-up) and between groups (intervention vs. control) for all primary and secondary outcomes. Time was treated as a fixed effect, and participant-level random intercepts were included to account for within-subject correlations across repeated measurements (Shek and Ma 2011; Winter and Wieling 2016).

Following the completion of the experimental procedure, interviews conducted with parents were analysed using content analysis. The responses were examined in detail, coded and categorized by the first and second authors. Both coders were also the therapists who delivered the PCIT intervention. To minimize potential bias stemming from their involvement in the intervention, coding was conducted independently, and categories were developed inductively from the data rather than being derived from the study hypotheses or expected treatment outcomes. Inter-rater agreement was calculated to enhance analytic rigour and was found to be 85%, indicating good agreement.

3 | Results

3.1 | Findings Obtained From the Experimental Procedure Phase

It is observed that there are no significant differences ($p > 0.05$) between participants in the intervention and control groups in terms of demographic variables as well as child and parent assessments. This finding indicates that the groups were well randomized at the outset and that potential confounding factors were minimized in evaluating the effectiveness of the intervention (see Table A4).

When examining the phases attended by participants who received the PCIT intervention, it is observed that they participated in CDI sessions ranging from five to nine sessions ($\bar{X} = 7.2$); those five cases attended PDI sessions ranging from four to five sessions ($\bar{X} = 4.4$), and finally, that they attended TFI sessions ranging from four to seven sessions ($\bar{X} = 4.8$). Five cases participated in all three phases—CDI, PDI and TFI—while four cases participated in only two phases—CDI and TFI (see Table A5).

3.2 | Findings Related to Child Assessments

It is observed that there is a significant difference in the child assessments between the pretest and post-test, as well as between the pretest and follow-up measurements for the experimental group that received the PCIT intervention ($p < 0.05$). However, there is no significant difference between the post-test and follow-up measurements, indicating that the effect of the intervention was sustained ($p > 0.05$) (Tables 1 and 2).

It is observed that there are significant differences ($p < 0.05$) between the experimental and control groups that received the

10990879, 2026, 2, Downloaded from https://onlinelibrary.wiley.com/doi/10.1002/cpp.70263 by Turkey Cochrane Evidence Aid, Wiley Online Library on [11/04/2026]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

TABLE 1 | Comparison of child assessment results across different time points.

	Pretest–post-test				Post-test follow-up				Pretest follow-up			
Measurement	**Mean difference (SE)**	***t*-test**	***p***	***d***	**Mean difference (SE)**	***t*-test**	***p***	***d***	**Mean difference (SE)**	***t*-test**	***p***	***d***
Trauma symptoms												
PCIT ($N=10$)	13.6 (1.79)	7.59	0.00	3.40	1.10 (0.67)	1.64	0.118	0.73	14.70 (1.81)	8.10	0.00	3.62
Control ($N=10$)	−0.70 (4.31)	−0.16	0.87	−0.07	−0.40 (4.28)	−0.093	0.927	−0.04	−1.10 (4.36)	−0.252	0.80	−0.11
ECBI intensity												
PCIT ($N=10$)	69.8 (9.59)	7.28	0.00	3.26	2.40 (6.11)	0.393	0.699	0.17	72.20 (9.60)	7.51	0.00	3.36
Control ($N=10$)	6.20 (9.24)	0.67	0.51	0.30	−2.20 (9.26)	−0.237	0.815	−0.10	4.00 (9.35)	0.428	0.67	0.19
ECBI problem												
PCIT ($N=10$)	15.1 (2.26)	6.67	0.00	2.98	1.10 (0.71)	1.53	0.143	0.68	16.20 (2.25)	7.18	0.00	3.21
Control ($N=10$)	−0.60 (4.34)	−0.13	0.89	−0.06	−3.30 (3.93)	−0.839	0.412	−0.37	−3.90 (3.87)	−1.00	0.32	−0.45
Emotion regulation												
PCIT ($N=10$)	−14.4 (4.10)	−3.51	0.02	−1.57	−2.20 (4.12)	−0.533	0.600	−0.23	−16.90 (3.98)	−4.23	0.00	−1.89
Control ($N=10$)	2.90 (3.57)	0.81	0.42	0.36	1.40 (3.47)	0.403	0.691	0.18	4.30 (3.63)	1.18	0.25	0.53

TABLE 2 | Estimated marginal means of child outcomes at pretest, post-test and follow-up across groups and estimated intervention effects across different time points from linear mixed models.

				PCIT–control	
Measurement	**Pretest mean (SE)**	**Post-test mean (SE)**	**Follow-up mean (SE)**	**Estimate (%95 GA)**	***p***
Trauma symptoms					
PCIT ($N=10$)	19.00 (5.49)	5.40 (1.35)	4.30 (1.63)	9.635 [6.243; 13.027]	0.000
Control ($N=10$)	17.60 (7.36)	18.90 (6.96)	18.80 (5.94)		
ECBI intensity					
PCIT ($N=10$)	153.20 (27.09)	83.40 (13.59)	81.00 (13.72)	102.440 [86.327; 118.554]	0.000
Control ($N=10$)	137.80 (20.94)	130.00 (20.46)	132.20 (20.98)		
ECBI problem					
PCIT ($N=10$)	24.00 (6.96)	8.90 (1.66)	7.80 (1.54)	13.074 [8.786; 17.363]	0.000
Control ($N=10$)	21.50 (7.51)	20.80 (7.36)	21.00 (7.61)		
Emotion regulation					
PCIT ($N=10$)	51.70 (8.68)	66.40 (9.31)	68.60 (9.14)	63.849 [58.074; 69.624]	0.000
Control ($N=10$)	59.60 (8.34)	57.80 (6.61)	58.00 (8.19)		

10990879, 2026, 2, Downloaded from https://onlinelibrary.wiley.com/doi/10.1002/cpp.70263 by Turkey Cochrane Evidence Aid, Wiley Online Library on [11/04/2026]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

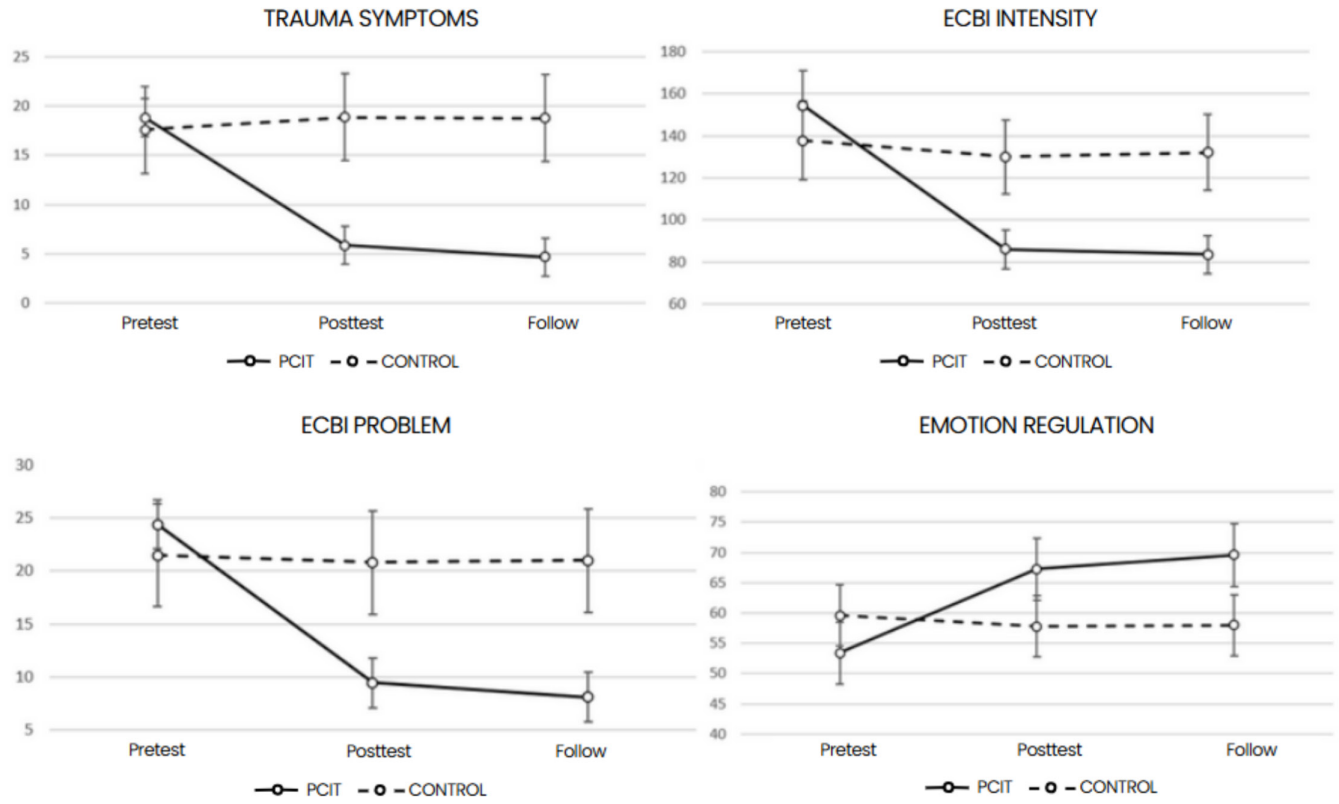


FIGURE 3 | Change in mean scores across phases for child assessment results in the experimental and control groups.

TABLE 3 | Comparison of parent assessment results across different time points.

	Pretest–post-test				Post-test follow-up				Pretest follow-up			
Measurement	**Mean difference (SE)**	***t*-test**	***p***	***d***	**Mean difference (SE)**	***t*-test**	***p***	***d***	**Mean difference (SE)**	***t*-test**	***p***	***d***
Parental stress												
PCIT ($N=9$)	30.66 (12.85)	2.38	0.030	1.12	1.33 (11.20)	0.119	0.907	0.05	32.00 (12.87)	2.48	0.024	1.17
Control ($N=10$)	−4.00 (9.84)	−0.406	0.689	−0.18	−2.70 (9.61)	−0.281	0.782	−0.12	−6.70 (9.75)	−0.687	0.501	−0.30
Parental burnout												
PCIT ($N=9$)	28.55 (12.31)	2.31	0.034	1.09	2.55 (7.42)	0.344	0.735	0.16	31.11 (12.30)	2.52	0.022	1.19
Control ($N=10$)	−2.20 (11.91)	−0.185	0.856	−0.08	−2.20 (12.17)	−0.181	0.859	−0.08	−4.40 (12.02)	−3.66	0.719	−0.16

PCIT intervention in terms of child assessments. The changes in mean scores across phases are illustrated in Figure 3.

When the child assessment results of the experimental and control groups are examined, it is observed that there are substantial decreases in trauma symptoms, ECBI Intensity and ECBI Problem mean scores in the experimental group compared to the control group, while there is a significant increase in emotion regulation mean scores.

3.3 | Findings Related to Parent Assessments

It is observed that there are significant differences between the pretest and post-test, as well as between the pretest and follow-up measurements, in the parental assessments–parental stress and parental burnout-of the experimental group that received the PCIT intervention. However, no significant differences were found between the post-test and follow-up measurements ($p > 0.05$). It is observed that there are significant differences ($p < 0.05$) between the experimental and control groups that received the PCIT intervention in terms of parental stress and parental burnout measurements (Tables 3 and 4).

The changes in the mean scores of parental stress and parental burnout, which were collected as parent assessments in the experimental and control groups, are illustrated in Figure 4.

When the parent assessment results of the experimental and control groups are examined, it is observed that there are

10990879, 2026, 2, Downloaded from https://onlinelibrary.wiley.com/doi/10.1002/cpp.70263 by Turkey Cochrane Evidence Aid, Wiley Online Library on [11/04/2026]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

TABLE 4 | Estimated marginal means of parent outcomes at pretest, post-test and follow-up across groups and estimated intervention effects across different time points from linear mixed models.

				PCIT–control	
Measurement	**Pretest mean (SE)**	**Post-test mean (SE)**	**Follow-up mean (SE)**	**Estimate (%95 GA)**	***p***
Parental stress					
PCIT ($N=9$)	88.22	57.56	56.22	68.127 [51.909; 84.346]	0.000
	(30.41)	(23.71)	(23.82)		
Control ($N=10$)	78.50	82.50	85.20		
	(22.30)	(21.69)	(21.31)		
Parental burnout					
PCIT ($N=9$)	64.33	35.78	33.22	41.988 [26.077; 57.898]	0.000
	(33.40)	(15.76)	(15.74)		
Control ($N=10$)	47.80	50.00	52.20		
	(26.30)	(26.97)	(27.47)		

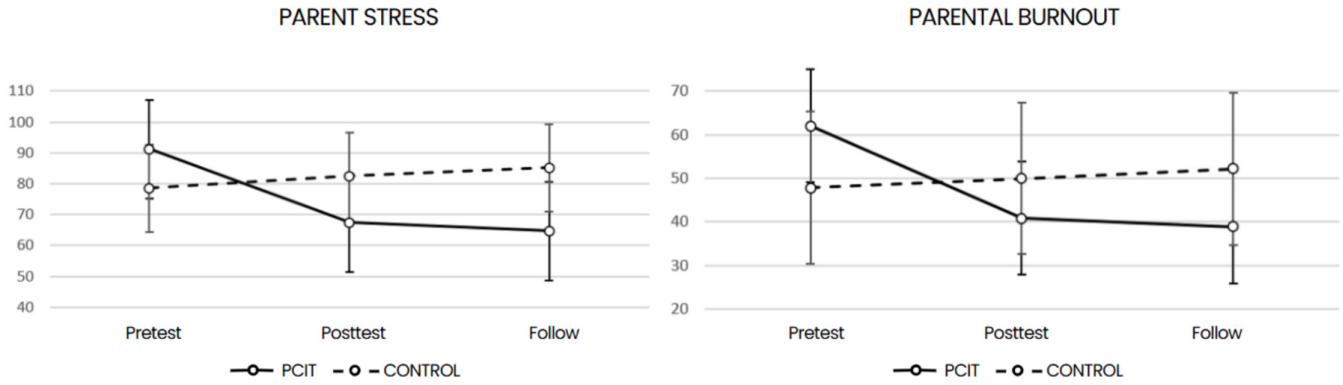


FIGURE 4 | Change in mean scores across phases for parent assessment results in the experimental and control groups.

substantial decreases in the mean problem scores of parental stress and parental burnout in the experimental group compared to the control group.

3.4 | Findings Obtained From Interviews Conducted After the Experimental Procedure

The qualitative analysis of parent interviews revealed several recurring themes reflecting perceived changes in both children and parents following the intervention. Themes were generated inductively through content analysis and represent patterns consistently identified across participants.

3.5 | Child-Related Themes

Parents' statements regarding changes in their children clustered under four main themes: emotion regulation, increased self-confidence, self-expression and reduced behavioural problems (see Table A6). Emotion regulation refers to improvements in children's ability to recognize, manage and respond to intense emotions—particularly anger, distress and frustration—in more adaptive ways. Parents frequently described reductions in self-harming behaviours, emotional withdrawal and emotional dysregulation. For example, one parent stated:

> When he got angry, he would scratch his face ... Now, he no longer harms his face ... When he gets angry, he practices breathing.
>
> (P7)

Similarly, another parent described a noticeable shift from emotional numbness to affective responsiveness:

> 'My daughter was very frozen before therapy ... Even when she fell badly, she wouldn't cry'.
>
> (P5).

Increased self-confidence reflects children's enhanced sense of competence, persistence and willingness to try tasks independently. Parents described observable increases in autonomy and resilience when facing challenges. One parent noted:

10990879, 2026, 2, Downloaded from https://onlinelibrary.wiley.com/doi/10.1002/cpp.70263 by Turkey Cochrane Evidence Aid, Wiley Online Library on [11/04/2026]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

> Previously, we would think 'He can't do it,' but now we see that he can, and we give him the opportunity to try.
>
> (P3)

Another parent emphasized change in frustration tolerance:

> In the first session, when the tower collapsed, he asked if I was going to cry. Now, even if it collapses, we just build it again.
>
> (P9)

Self-expression (emotions and thoughts) refers to improvements in children's verbalization of internal experiences rather than expressing distress through aggression, withdrawal, or silence. Many parents reported that their children became more communicative and emotionally articulate. As one parent explained:

> Instead of shouting or acting aggressively, he now says, 'I'm sorry, forgive me.' He expresses his feelings verbally.
>
> (P3)

Another parent described increased emotional awareness:

> She now recognizes anger, fear, and worry ... When she's happy, she tells me.
>
> (P4)

Reduced behavioural problems capture decreases in oppositional behaviours, noncompliance, excessive crying and rule-breaking. Parents frequently linked these improvements to clearer boundaries and more consistent parent–child interactions. For instance,

> He argues less ... He follows the rules and even warns others who don't.
>
> (P1)

Another parent stated:

> She doesn't cry to get what she wants anymore.
>
> (P6)

3.6 | Parent-Related Themes

Parents' reflections on their own experiences were grouped under three primary themes: positive mental health, increased self-efficacy and increased communication and interaction (see Table A7). Positive mental health refers to reductions in parental guilt, stress, hopelessness and emotional burden, as well as increased relief and psychological well-being. Several parents described emotional exhaustion prior to treatment and relief afterward. One parent expressed:

> When I first came, I hated myself. I thought I was a bad mother ... Now I see myself as a very good mother.
>
> (P4)

Another stated:

> Even just talking every week was relieving for us.
>
> (P7)

Increased self-efficacy reflects parents' strengthened confidence in managing their child's behaviours and navigating challenging situations. Parents frequently described gaining new skills and feeling more competent. For example:

> Now when something negative happens, I know I can manage it better.
>
> (P1)

Another parent noted:

> Before, I didn't know what to do ... Now I know the right way.
>
> (P7)

Increased communication and interaction refer to improvements in emotional sharing, mutual understanding and quality of parent–child interaction. Parents emphasized greater emotional closeness and dialogue. As one parent stated:

> We increased our emotional sharing. We started talking about feelings like happiness and sadness.
>
> (P1)

Another parent explained:

> Now I can understand him better ... I encourage him to speak more openly.
>
> (P2)

Overall, the qualitative findings suggest that the intervention was associated with perceived improvements in children's emotional and behavioural functioning as well as enhanced parental psychological well-being and relational competence.

4 | Conclusion and Discussion

This study represents the first attempt to implement PCIT with a trauma-specific TFI module for young children exposed to diverse traumatic experiences such as loss, grief, divorce and domestic violence. The findings indicate that children who received TFI-PCIT demonstrated significant reductions in PTSD symptoms, improvements in emotion regulation, reductions in behavioural problems and enhanced overall adjustment. In addition, parents reported decreased parenting stress and burnout. These results suggest that TFI-PCIT is a promising intervention for children affected by these types of trauma. Consistent with prior research, the buffering effect of a strong parent–child relationship supports the reduction of trauma symptoms in children (Chaffin et al. 2011; Cinamon et al. 2021).

10990879, 2026, 2, Downloaded from https://onlinelibrary.wiley.com/doi/10.1002/cpp.70263 by Turkey Cochrane Evidence Aid, Wiley Online Library on [11/04/2026]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

The findings of this study align with and extend prior research on trauma-focused interventions for young children. Unlike Trauma-Focused Cognitive Behavioural Therapy (TF-CBT), which primarily emphasizes trauma narration and cognitive restructuring, TFI-PCIT integrates trauma processing within a dyadic parent–child framework that emphasizes emotion regulation and secure attachment. Compared to CPP, which also targets relational trauma, TFI-PCIT incorporates live coaching and structured behavioural components that may facilitate more rapid improvements in externalizing behaviours.

Equipping parents with the knowledge and skills to foster secure attachment and manage disruptive behaviours is crucial, as children with secure attachments and fewer behavioural difficulties demonstrate greater resilience following trauma (De Young et al. 2011; McLaughlin and Lambert 2017). In line with the literature, our findings suggest that increased positive parenting practices and decreased negative practices are associated with reduced trauma responses, particularly externalizing behaviours and difficulties in self-regulation (Kim-Spoon et al. 2012). In this study, the combined PCIT and TFI module significantly reduced behavioural problems and enhanced child adjustment. The reduction in PTSD symptoms may have occurred through improvements in emotional security, parental responsiveness and children's regulatory capacities.

Standard PCIT emphasizes positive parent–child interactions and includes the PDI phase, which teaches effective discipline skills, including rule-setting and monitoring adherence (Eyberg and Funderburk 2011). These components contribute to improvements in behavioural regulation and adjustment (McNeil and Hembree-Kigin 2010; Thomas et al. 2017; Williford et al. 2019; Fleming et al. 2021; Onovbiona et al. 2023). Such skills are especially important for traumatized children, as trauma often manifests behaviourally (e.g., aggression, impulsivity and distractibility) (Lubit et al. 2003; Menand and Cox 2022). In addition to reducing disruptive behaviours, the PDI phase may indirectly contribute to reductions in PTSD symptoms by increasing structure, predictability and consistency in the home environment. For trauma-exposed children, a more predictable and controlled caregiving context may enhance perceived safety and reduce hypervigilance and emotional reactivity. Prior studies similarly report that PCIT effectively reduces disruptive behaviours and enhances parent–child relationships among trauma-exposed children (Cohen et al. 2004; Chaffin et al. 2011; Thomas and Zimmer-Gembeck 2012; Pearl et al. 2012; Allen et al. 2014; Mersky et al. 2015; Costello et al. 2016; Lieneman et al. 2019). However, because PTSD symptoms were not assessed after completion of the PDI module and prior to implementation of the TFI module, the unique contribution of the TFI component beyond standard PCIT cannot be definitively determined. This measurement limitation should be considered when interpreting the findings.

The TFI module specifically targets emotion regulation, a critical area for traumatized children. Our findings demonstrate significant improvements in children's emotion regulation skills following the intervention, which may represent a key mechanism underlying reductions in PTSD symptoms. The literature corroborates these effects, noting that PCIT can enhance children's ability to identify, label and express emotions (Rothenberg et al. 2019; Quetsch et al. 2018; Gurwitch and Warner-Metzger 2022; Warren et al. 2022). Parents are trained to validate children's emotions rather than correct them, further supporting emotional awareness and resilience (Lieberman et al. 2015; Cohen et al. 2017; Gurwitch 2018). Although the trauma-specific content of the TFI module primarily consisted of psychoeducation, the coping-oriented components (e.g., breathing exercises, emotion coaching and co-regulation strategies) may reduce PTSD symptoms by decreasing physiological arousal and strengthening children's capacity to manage trauma-related distress.

Another key outcome is the reduction in parental stress and burnout. Given the well-established association between parenting factors and child outcomes (Overbeek et al. 2017), interventions targeting parents are critical. While standard PCIT is known to reduce parental stress (Warren et al. 2022; Allen et al. 2014), this study extends the evidence by showing that TFI-PCIT also decreases parental burnout. Parent interviews indicated that improvements in children's trauma symptoms, behavioural problems, adjustment and emotion regulation, as well as increased parental self-efficacy and therapist support, contributed to reductions in stress and burnout. Parents participating in behavioural parent training programmes learn to manage their children's behaviours by modifying their own verbal expressions and actions. A decrease in parenting stress is expected in parents who manage their children's behaviours more effectively, as a result of the reduction in children's behavioural problems, which also enhances parents' distress tolerance (Hajal and Paley 2020). Studies in the literature report that PCIT interventions, both standard and combined with trauma modules, significantly reduce parental stress (Warren et al. 2022; Warren et al. 2024; Tehrani et al. 2024; Allen et al. 2014; Cooley et al. 2014; Patel et al. 2022). Furthermore, in the context of trauma, parents may themselves have experienced trauma or be under stress due to their child's experiences. The TFI module provides parents with knowledge and skills to respond effectively to children's traumatic reactions and receive immediate feedback, thereby enhancing parental self-efficacy (Gurwitch and Warner-Metzger 2022; Vaydich and Cheung 2023). Minimizing and managing parental stress are critically important to reduce parental burnout and ensure family well-being.

The present findings suggest that the reconstruction of perceived safety within the parent–child relationship may represent a central mechanism of change in TFI-PCIT. The re-establishment of perceived safety likely facilitates the development of emotion regulation capacities. When children experience their caregivers as predictable, attuned and protective, physiological and emotional arousal can be modulated more effectively. In this framework, improved emotion regulation functions as a downstream mechanism that contributes to reductions in trauma-related symptoms and externalizing behaviours. As child dysregulation decreases, parental stress and burnout are subsequently reduced, creating a reciprocal cycle of relational stabilization (TFI-PCIT enhances parental sensitivity → strengthened child perceived safety and improved emotion regulation capacity → reduced PTSD symptoms and behavioural problems → decreased parental stress and burnout).

10990879, 2026, 2, Downloaded from https://onlinelibrary.wiley.com/doi/10.1002/cpp.70263 by Turkey Cochrane Evidence Aid, Wiley Online Library on [11/04/2026]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

These findings have several clinical implications. TFI-PCIT appears particularly suitable for preschool-aged children exposed to interpersonal or relational trauma. Mental health practitioners working in early childhood settings, family counselling centres and community mental health services may consider integrating TFI-PCIT protocols when trauma symptoms co-occur with behavioural dysregulation. Given the live coaching format, clinicians require formal PCIT training and additional trauma-focused adaptation training to ensure fidelity. The structured, session-based format may make TFI-PCIT feasible for implementation within outpatient community settings.

Policymakers should consider supporting training programmes that equip clinicians with dyadic trauma-focused competencies. Early identification and intervention through community-based services, such as Healthy Life Centers and preschool institutions, may help prevent chronic psychopathology and reduce long-term societal costs associated with untreated childhood trauma.

4.1 | Limitations and Suggestions

The TFI-PCIT module was implemented with nine trauma-exposed cases (e.g., maltreatment and parental divorce) in the experimental group, all of whom could participate in face-to-face therapy. Due to the small sample size and focus on specific trauma types, not all forms of trauma (e.g., sexual abuse) were examined. The small sample size reduced statistical power and limited the ability to conduct module-specific or mediation analyses to determine which intervention components were most strongly associated with changes in PTSD symptoms. In addition, the use of a no-treatment control group controls for the passage of time but does not control for nonspecific treatment factors such as expectancy effects, placebo effects or the positive attention of caring adults. While the lack of therapist and assessor blinding is acknowledged as a limitation, the mixed-methods design and rigorous experimental procedures strengthen the validity of the findings. An additional limitation is the exclusion of parents with clinically significant PTSD symptoms to ensure stable therapy participation. This resulted in a relatively selective sample, limiting generalizability to families where caregivers have higher trauma burdens. Finally, the limited number of certified PCIT therapists in Turkey at the time prevented blinding of therapists to treatment conditions and qualitative data analysis. Reflexive strategies were employed to mitigate bias, but potential influences cannot be entirely ruled out. Long-term follow-up (6–12 months) and hybrid or online delivery methods should be considered in future studies to assess the sustainability and scalability of TFI-PCIT outcomes and to more clearly disentangle the specific mechanisms responsible for reductions in PTSD symptoms. Moreover, the findings suggest potential implications for mental health policy and service provision. Integrating trauma-focused parent–child interventions like TFI-PCIT into early childhood mental health services could reduce the long-term impact of trauma and support both children and caregivers in high-risk populations. Comparative studies with other trauma-focused interventions and the inclusion of active control conditions are recommended to situate TFI-PCIT within the broader evidence base and clarify its unique contribution relative to standard PCIT. Future clinical applications could include hybrid or online delivery formats to increase accessibility and scalability.

Author Contributions

Fatmanur Çimen and İsmail Seçer: conceptualization. **Fatmanur Çimen and İsmail Seçer:** data collection. **Fatmanur Çimen and İsmail Seçer:** methodology. **Fatmanur Çimen:** data analysis. **Fatmanur Çimen and İsmail Seçer:** writing – original draft. **İsmail Seçer:** review and supervision.

Funding

This research was carried out within the scope of TUBITAK 1002 Rapid Support Programme Project No. 223K955 and Scientific and Technological Research Council of Türkiye.

Ethics Statement

This study complies with the 1964 Declaration of Helsinki and its subsequent amendments or comparable ethical standards and ethical approval for the research process was obtained from Atatürk University (approval date/no: 2024, 04/03) Scientific Research and Publication Ethics Committee.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The data set can be provided by the corresponding author upon request.

References

Abidin, R. R. 1983. "Parenting Stress and the Utilization of Pediatric Services." *Children's Health Care* 11, no. 2: 70–73. https://doi.org/10.1207/s15326888chc1102_5.

Akkuş, P. Z., E. Serdaroğlu, A. Kömürlüoğlu, et al. 2021. "Screening Traumatic Life Events in Preschool Aged Children: Cultural Adaptation of Child and Adolescent Trauma Screen (CATS) Caregiver-Report 3-6 Years Version." *Turkish Journal of Pediatrics* 63, no. 1: 95–101. https://doi.org/10.24953/turkjped.2021.01.011.

Allen, B., S. G. Timmer, and A. J. Urquiza. 2014. "Parent–Child Interaction Therapy as an Attachment-Based Intervention: Theoretical Rationale and Pilot Data With Adopted Children." *Children and Youth Services Review* 47: 334–341. https://doi.org/10.1016/j.childyouth.2014.10.009.

Allen, B., S. G. Timmer, and A. J. Urquiza. 2016. "Parent–Child Interaction Therapy for Sexual Concerns of Maltreated Children: A Preliminary Investigation." *Child Abuse & Neglect* 56: 80–88. https://doi.org/10.1016/j.chiabu.2016.04.008.

Altan, Ö. 2006. "The Effects of Maternal Socialization and Temperament on Children's Emotion Regulation (Thesis no. 190629) [Master's Thesis, Koç University-İstanbul]." Council of Higher Education National Thesis Center.

APA. 2014. *Diagnostic and Statistical Manual of Mental Disorders*. 5th ed. (DSM-5 diagnostic criteria). HYB.

Arikan, G., A. M. Üstündag-Budak, E. Akgün, M. Mikolajczak, and I. Roskam. 2020. "Validation of the Turkish Version of the Parental Burnout Assessment (PBA)." *Child & Adolescent Development*: 1–18. https://doi.org/10.1002/cad.20375.

Batzer, S., T. Berg, M. T. Godinet, and R. L. Stotzer. 2018. "Efficacy or Chaos? Parent–Child Interaction Therapy in Maltreating Populations:

10990879, 2026, 2, Downloaded from https://onlinelibrary.wiley.com/doi/10.1002/cpp.70263 by Turkey Cochrane Evidence Aid, Wiley Online Library on [11/04/2026]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

A Review of Research." *Trauma, Violence & Abuse* 19, no. 1: 3–19. https://doi.org/10.1177/1524838015620819.

Boysan, M., P. G. Özdemir, O. Özdemir, Y. Selvi, E. Yılmaz, and N. Kaya. 2017. "Psychometric Properties of the Turkish Version of the PTSD Checklist for Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (PCL-5)." *Psychiatry and Clinical Psychopharmacology* 27, no. 3: 306–316. https://doi.org/10.1080/24750573.2017.1342769.

Bryant, R. A. 2019. "Post-Traumatic Stress Disorder: A State-of-the-Art Review of Evidence and Challenges." *World Psychiatry* 18, no. 3: 259–269. https://doi.org/10.1002/wps.20656.

Canale, C. A., A. M. Hayes, C. Yasinski, D. J. Grasso, C. Webb, and E. Deblinger. 2022. "Caregiver Behaviors and Child Distress in Trauma Narration and Processing Sessions of Trauma-Focused Cognitive Behavioral Therapy (TF-CBT)." *Behavior Therapy* 53, no. 1: 64–79. https://doi.org/10.1016/j.beth.2021.06.001.

Carnes-Holt, K., and S. C. Bratton. 2014. "The Efficacy of Child Parent Relationship Therapy for Adopted Children With Attachment Disruptions." *Journal of Counseling & Development* 92, no. 3: 328–337. https://doi.org/10.1002/j.1556-6676.2014.00160.x.

CEBC. 2021. "California Evidence Based Clearinghouse for Child Welfare. Parent-child Interaction Therapy." https://www.cebc4cw.org/program/parent-child-interaction-therapy/.

Chaffin, M., B. Funderburk, D. Bard, L. A. Valle, and R. Valle. 2011. "A Combined Motivation and Parent–Child Interaction Therapy Package Reduces Child Welfare Recidivism in a Randomized Dismantling Field Trial." *Journal of Consulting and Clinical Psychology* 79, no. 1: 84–95. https://doi.org/10.1037/a0021227.

Chaffin, M., J. F. Silovsky, B. Funderburk, et al. 2004. "Parent-Child Interaction Therapy With Physically Abusive Parents: Efficacy for Reducing Future Abuse Reports." *Journal of Consulting and Clinical Psychology* 72, no. 3: 500–510. https://doi.org/10.1037/0022-006X.72.3.500.

Çimen, F., İ. Seçer, A. Alberici, and R. Meiser-Stedman. 2025. "Psychometric Evaluation of the Turkish Adapted Posttraumatic Safety-Seeking Behaviours Scale (CSBS) and Network Analysis of PTSD Symptoms in Earthquake-Exposed Children and Adolescents." *Clinical Child Psychology and Psychiatry* 31: 13591045251396299. https://doi.org/10.1177/13591045251396299.

Cinamon, J. S., V. Bambrah, R. T. Muller, K. P. Zorzella, S. Konanur, and K. Thornback. 2021. "Examining the Reciprocal Relationships Between Parent Functioning and Child Posttraumatic Stress Throughout Trauma Therapy." *Journal of Family Trauma, Child Custody & Child Development* 18, no. 2: 139–161. https://doi.org/10.1080/26904586.2021.1886220.

Cohen, E., and R. Gadassi. 2018. "The Function of Play for Coping and Therapy With Children Exposed to Disasters and Political Violence." *Current Psychiatry Reports* 20, no. 31: 5–7. https://doi.org/10.1007/s11920-018-0895-x.

Cohen, J. 1988. *Statistical Power Analysis for the Behavioral Sciences*. Routledge. https://doi.org/10.4324/9780203771587.

Cohen, J. A., E. Deblinger, A. P. Mannarino, and R. A. Steer. 2004. "A Multisite, Randomized Controlled Trial for Children With Sexual Abuse-Related PTSD Symptoms." *Journal of the American Academy of Child and Adolescent Psychiatry* 43, no. 4: 393–402. https://doi.org/10.1097/00004583-200404000-00005.

Cohen, J. A., A. P. Mannarino, and E. Deblinger. 2017. *Treating Trauma and Traumatic Grief in Children and Adolescents*. Guilford.

Cooley, M. E., A. Veldorale-Griffin, R. E. Petren, and A. K. Mullis. 2014. "Parent-Child Interaction Therapy: A meta-Analysis of Child Behavior Outcomes and Parent Stress." *Journal of Family Social Work* 17, no. 3: 191–208. https://doi.org/10.1080/10522158.2014.888696.

Costello, A., R. Travers, L. B. Quetsch, C. Robinson, N. M. Wallace, and C. B. McNeil. 2016. "Parent-Child Interaction Therapy for the Treatment and Prevention of Child Abuse and Neglect." In *Child Abuse and Neglect: Perceptions, Psychological Consequences and Coping Strategies*, edited by N. Columbus. Nova Science Publishers.

De Young, A. C., J. A. Kenardy, and V. E. Cobham. 2011. "Trauma in Early Childhood: A Neglected Population." *Clinical Child and Family Psychology Review* 14, no. 3: 231–250. https://doi.org/10.1007/s10567-011-0094-3.

Dozier, M., and K. Bernard. 2017. "Attachment and Biobehavioral Catch-Up: Addressing the Needs of Infants and Toddlers Exposed to Inadequate or Problematic Caregiving." *Current Opinion in Psychology* 15: 111–117. https://doi.org/10.1016/j.copsyc.2017.03.003.

Eslinger, J. G., G. Sprang, and M. Otis. 2015. "Children With Multi-Trauma Histories: Special Considerations for Care and Implications for Treatment Selection." *Journal of Child and Family Studies* 24: 2757–2768. https://doi.org/10.1007/s10826-014-0079-1.

Eyberg, S. M., and B. Funderburk. 2011. *Parent-Child Interaction Therapy Protocol*. PCIT International.

Eyberg, S. M., and D. B. Pincus. 1999. *Eyberg Child Behavior Inventory and Sutter-Eyberg Behavior Inventory Revised: Professional Manual*. Psychological Assessment Resources.

Fleming, G. E., J. Kohlhoff, S. Morgan, A. Turnell, M. Maiuolo, and E. R. Kimonis. 2021. "An Effectiveness Open Trial of Internet-Delivered Parent Training for Young Children With Conduct Problems Living in Regional and Rural Australia." *Behavior Therapy* 52: 110–123. https://doi.org/10.1016/j.beth.2020.03.001.

Garland, C. 2018. "Thinking About Trauma." In *Understanding Trauma*, 9–31. Routledge.

Gigengack, M. R., E. P. van Meijel, E. Alisic, and R. J. Lindauer. 2015. "Comparing Three Diagnostic Algorithms of Posttraumatic Stress in Young Children Exposed to Accidental Trauma: An Exploratory Study." *Child and Adolescent Psychiatry and Mental Health* 9, no. 14: 1–8. https://doi.org/10.1186/s13034-015-0046-7.

Graziano, P. A., J. A. Spiegel, T. Hayes, E. Arcia, and Sundari Foundation. 2023. "Early Intervention for Families Experiencing Homelessness: A Pilot Randomized Trial Comparing Two Parenting Programs." *Journal of Consulting and Clinical Psychology* 91, no. 4: 192–207. https://doi.org/10.1101/2020.12.07.20245563.

Gurwitch, R. H. 2018. *Healing After Trauma Skills: A Manual for Professionals, Teachers, and Families Working With Children After Trauma/Disaster*. 2nd ed. Children's Medical Research Foundation.

Gurwitch, R. H., and C. M. Warner-Metzger. 2022. "Trauma-Directed Interaction (TDI): An Adaptation to Parent-Child Interaction Therapy for Families With a History of Trauma." *International Journal of Environmental Research and Public Health* 19: 6089. https://doi.org/10.3390/ijerph19106089.

Gusler, S., G. Sprang, and J. Eslinger. 2023. "Parenting Stress and Children's Trauma Symptoms Over the Course of TF-CBT: Examining Differences Between Relative and Foster/Adoptive Caregivers." *Child Abuse & Neglect* 137: 106035. https://doi.org/10.1016/j.chiabu.2023.106035.

Hajal, N. J., and B. Paley. 2020. "Parental Emotion and Emotion Regulation: A Critical Target of Study for Research and Intervention to Promote Child Emotion Socialization." *Developmental Psychology* 56, no. 3: 403–417. https://doi.org/10.1037/dev0000864.

Hawk, B. N., S. G. Timmer, L. A. F. Armendariz, D. K. Boys, and A. J. Urquiza. 2020. "Improving Behaviors and Placement Stability for Young Foster Children: An Open Trial of Parent-Child Care (PC-CARE) in the Child Welfare System." *Children and Youth Services Review* 119: 105614. https://doi.org/10.1016/j.childyouth.2020.105614.

10990879, 2026, 2, Downloaded from https://onlinelibrary.wiley.com/doi/10.1002/cpp.70263 by Turkey Cochrane Evidence Aid, Wiley Online Library on [11/04/2026]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

Ippen, C. G., and E. Ippen. 2017. *Once I Was Very Very Scared*. Piplo Productions.

Kerns, C. E., R. M. Elkins, A. L. Carpenter, T. Chou, J. G. Green, and J. S. Comer. 2014. "Caregiver Distress, Shared Traumatic Exposure, and Child Adjustment Among Area Youth Following the 2013 Boston Marathon Bombing." *Journal of Affective Disorders* 167: 50–55. https://doi.org/10.1016/j.jad.2014.05.040.

Kim-Spoon, J., G. Longo, and M. E. Mccullough. 2012. "Parent-Adolescent Relationship Quality as a Moderator for the Influences of Parents' Religiousness on Adolescents' Religiousness and Adjustment." *Journal of Youth and Adolescence* 41, no. 12: 1576–1587. https://doi.org/10.1007/s10964-012-9796-1.

Lieberman, A. F., C. Ghosh Ippen, and P. J. Van Horn. 2015. *Don't Hit my Mommy: A Manual for Child-Parent Psychotherapy With Young Witnesses of Family Violence*. 2nd ed. Zero to Three Press.

Lieberman, A. F., P. Van Horn, and C. G. Ippen. 2005. "Toward Evidence-Based Treatment: Child-Parent Psychotherapy With Preschoolers Exposed to Marital Violence." *Journal of the American Academy of Child & Adolescent Psychiatry* 44, no. 12: 1241–1248. https://doi.org/10.1097/01.chi.0000181047.59702.58.

Lieneman, C. C., L. B. Quetsch, L. L. Theodorou, K. A. Newton, and C. B. McNeil. 2019. "Reconceptualizing Attrition in Parent-Child Interaction Therapy: "Dropouts" Demonstrate Impressive Improvements." *Psychology Research and Behavior Management* 12: 543–555. https://doi.org/10.2147/PRBM.S207370.

Lubit, D., L. Rovine, L. DeFrancisci, and S. Eth. 2003. "Impact of Trauma on Children." *Journal of Psychiatric Practice* 9, no. 2: 128–138. https://doi.org/10.1097/00131746-200303000-00004.

McLaughlin, K. A., J. G. Green, M. J. Gruber, N. A. Sampson, A. M. Zaslavsky, and R. C. Kessler. 2012. "Childhood Adversities and First Onset of Psychiatric Disorders in a National Sample of US Adolescents." *Archives of General Psychiatry* 69, no. 11: 1151–1160. https://doi.org/10.1001/archgenpsychiatry.2011.2277.

McLaughlin, K. A., and H. K. Lambert. 2017. "Child Trauma Exposure and Psychopathology: Mechanisms of Risk and Resilience." *Current Opinion in Psychology* 14: 29–34. https://doi.org/10.1016/j.copsyc.2016.10.004.

McNeil, C. B., and T. L. Hembree-Kigin. 2010. *Parent-Child Interaction Therapy*. 2nd ed. Springer Science & Business Media. https://link.springer.com/book/10.1007/978-0-387-88639-8.

Menand, E., and L. J. Cox. 2022. "The Overlap Between Trauma & Disruptive Behavior Disorders." In *Not Just Bad Kids*, 251–289. Elsevier. https://doi.org/10.1016/b978-0-12-818954-2.00033-x.

Mersky, J. P., J. Topitzes, C. E. Janczewski, and C. B. McNeil. 2015. "Enhancing Foster Parent Training With Parent-Child Interaction Therapy: Evidence From a Randomized Field Experiment." *Journal of the Society for Social Work and Research* 6, no. 4: 591–616. https://doi.org/10.1086/684123.

Mert, E., O. Hallıoğlu, and H. Ankaralı-Çamdeviren. 2007. "Turkish Version of the Parenting Stress Index Short Form: A Psychometric Study." *Turkiye Klinikleri Journal of Medical Sciences* 28: 291–296. https://www.turkiyeklinikleri.com/article/en-turkish-version-of-the-parenting-stress-index-short-form-a-psychometric-study-50515.html.

Morina, N., R. Koerssen, and T. V. Pollet. 2016. "Interventions for Children and Adolescents With Posttraumatic Stress Disorder: A Meta-Analysis of Comparative Outcome Studies." *Clinical Psychology Review* 47: 41–54. https://doi.org/10.1016/j.cpr.2016.05.006.

Onovbiona, H., A. R. Mapes, L. B. Quetsch, L. L. Theodorou, and C. B. McNeil. 2023. "Parent-Child Interaction Therapy for Children in Foster Care and Children With Posttraumatic Stress: Exploring Behavioral Outcomes and Graduation Rates in a Large State-Wide Sample." *Children and Youth Services Review* 145: 106797. https://doi.org/10.1016/j.childyouth.2022.106797.

Overbeek, M. M., J. C. De Schipper, A. M. Willemen, F. Lamers-Winkelman, and C. Schuengel. 2017. "Mediators and Treatment Factors in Intervention for Children Exposed to Interparental Violence." *Journal of Clinical Child & Adolescent Psychology* 46, no. 3: 411–427. https://doi.org/10.1080/15374416.2015.1012720.

Patel, Z. S., S. E. Maylott, W. A. Rothenberg, J. Jent, and D. Garcia. 2022. "Parenting Stress Across Time-Limited Parent-Child Interaction Therapy." *Journal of Child and Family Studies* 31: 3069–3084. https://doi.org/10.1007/s10826-022-02397-9.

Pearl, E., L. Thieken, E. Olafson, et al. 2012. "Effectiveness of Community Dissemination of Parent-Child Interaction Therapy." *Psychological Trauma* 4, no. 2: 204–213. https://doi.org/10.1037/a0022948.

Perilli, S., A. Giuliani, A. Pagani, et al. 2019. "EMDR Group Treatment of Children Refugees—A Field Study." *Journal of EMDR Practice and Research* 13, no. 2: 143–155. https://doi.org/10.1891/1933-3196.13.2.143.

Quetsch, L. B., N. M. Wallace, C. B. McNeil, and A. Gentzler. 2018. "Emotion Regulation in Families of Children With Behavior Problems Versus Nonclinical Comparisons." *Journal of Child and Family Studies* 27, no. 8: 2467–2480. https://doi.org/10.1007/s10826-018-1081-9.

Reyes, V., B. J. Stone, M. H. Dimmler, and A. F. Lieberman. 2017. "Child-Parent Psychotherapy: An Evidence-Based Treatment for Infants and Young Children." In *Evidence-Based Treatments for Trauma Related Disorders in Children and Adolescents (S. 321)*, edited by M. A. Landolt, M. Cloitre, and U. Schnyder içinde. Springer.

Roskam, I., M. E. Brianda, and M. Mikolajczak. 2018. "A Step Forward in the Conceptualization and Measurement of Parental Burnout: The Parental Burnout Assessment (PBA)." *Frontiers in Psychology* 9. https://doi.org/10.3389/fpsyg.2018.00758.

Rothenberg, W. A., A. Weinstein, E. A. Dandes, and J. F. Jent. 2019. "Improving Child Emotion Regulation: Effects of Parent–Child Interaction-Therapy and Emotion Socialization Strategies." *Journal of Child and Family Studies* 28, no. 3: 720–731. https://doi.org/10.1007/s10826-018-1302-2.

Sachser, C., L. Berliner, T. Holt, et al. 2017. "International Development and Psychometric Properties of the Child and Adolescent Trauma Screen (CATS)." *Journal of Affective Disorders* 210: 189–195. https://doi.org/10.1016/j.jad.2016.12.040.

Seçer, İ., F. Çimen, B. Bülbül, and W. Briegel. 2026. "Development of a PCIT Adaptation for Trauma by Natural Disasters (PCIT-TND) and Examination of Its Effectiveness for Traumatized Children Affected by the 2023 Earthquakes in Türkiye." *Current Psychology* 45, no. 501: 2–17. https://doi.org/10.1007/s12144-025-08900-x.

Seçer, İ., and S. Ulaş. 2022. "Validity and Reliability Study of the Eyberg Child Behavior Inventory in Turkish Culture [Oral Presentation]." In Proceedings of the 6th National Interdisciplinary Early Childhood Intervention Congress With International Participation, Eskişehir, Türkiye.

Shek, D., and C. Ma. 2011. "Longitudinal Data Analyses Using Linear Mixed Models in SPSS: Concepts, Procedures and Illustrations." *Scientific World Journal* 11: 42–76. https://doi.org/10.1100/tsw.2011.2.

Shields, A., and D. Cicchetti. 1997. "Emotion Regulation Among School-Age Children: The Development and Validation of a New Criterion Q-Sort Scale." *Developmental Psychology* 33, no. 6: 906–916. https://psycnet.apa.org/doi/10.1037/0012-1649.33.6.906.

Tavkar, P., and D. J. Hansen. 2011. "Interventions for Families Victimized by Child Sexual Abuse: Clinical Issues and Approaches for Child Advocacy Center-Based Services." *Aggression and Violent Behavior* 16, no. 3: 188–199. https://doi.org/10.1016/j.avb.2011.02.005.

Tehrani, H. D., S. Yamini, and A. T. Vazsonyi. 2024. "Effects of Parenting Program Components on Parental Stress: A Systematic Review and Component Network Meta-Analysis." *Journal of Family Psychology* 38, no. 2: 320–332. https://doi.org/10.1037/fam0001161.

10990879, 2026, 2, Downloaded from https://onlinelibrary.wiley.com/doi/10.1002/cpp.70263 by Turkey Cochrane Evidence Aid, Wiley Online Library on [11/04/2026]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

Thielemann, J. F., B. Kasparik, J. König, J. Unterhitzenberger, and R. Rosner. 2022. "A Systematic Review and Meta-Analysis of Trauma-Focused Cognitive Behavioral Therapy for Children and Adolescents." *Child Abuse & Neglect* 134: 105899. https://doi.org/10.1016/j.chiabu.2022.105899.

Thomas, R., B. Abell, H. Webb, E. Avdagic, and M. Zimmer-Gembeck. 2017. "Parent-Child Interaction Therapy: A Meta-Analysis." *Pediatrics* 140, no. 3: e20170352. https://doi.org/10.1542/peds.2017-0352.

Thomas, R., and M. J. Zimmer-Gembeck. 2012. "Parent-Child ınteraction Therapy: An Evidence-Based Treatment for Child Maltreatment." *Child Maltreatment* 17, no. 3: 253–266. https://doi.org/10.1177/1077559512459555.

Timmer, S. G., M. Usacheva, A. A. Maise, S. L. Hutchison, L. F. Armendariz, and A. D. Herschell. 2021. "Psychometric Properties of the Weekly Assessment of Child Behavior–Positive Form (WACB-P)." *Journal of Emotional and Behavioral Disorders* 29, no. 4: 226–237. https://doi.org/10.1177/10634266211000618.

Vaydich, J. L., and R. Y. Cheung. 2023. "Parental Burnout During the Second Year of the covıd-19 Pandemic: Exploring the Role of Parenting Stressors and Coparenting Support." *Family Journal* 31, no. 3: 432–442. https://doi.org/10.1177/10664807221123556.

Warner-Metzger, C. M., and B. Funderburk. 2021. "*Growing a More Resilient Future: A Trauma-Directed Interaction (TDI) Module to Address Intergenerational Trauma*." In Proceedings of the Symposium at the Parent-Child Interaction Therapy (PCIT) International Biennial Convention.

Warren, J. M., S. A. Halpin, T. L. Hanstock, C. Hood, and S. A. Hunt. 2022. "Outcomes of Parent-Child Interaction Therapy (PCIT) for Families Presenting With Child Maltreatment: A Systematic Review." *Child Abuse & Neglect* 134: 105942. https://doi.org/10.1016/j.chiabu.2022.105942.

Warren, J. M., T. L. Hanstock, S. A. Hunt, S. A. Halpin, C. M. Warner-Metzger, and R. H. Gurwitch. 2024. "A Naturalistic Evaluation of Parent-Child Interaction Therapy (PCIT) and PCIT With Trauma-Directed Interaction (PCIT With TDI) in Australian Children Exposed to Abuse and Neglect." *Child Protection and Practice* 2: 100028. https://doi.org/10.1016/j.chipro.2024.100028.

Willheim, E., and D. S. Schechter. 2025. "Therapeutic Interventions for Trauma-Exposed Infants, Young Children, and Their Caregivers." *Child and Adolescent Psychiatric Clinics of North America* 34, no. 2: 291–310. https://doi.org/10.1016/j.chc.2024.08.005.

Williford, D. N., C. C. Lieneman, C. R. Drain, and C. B. McNeil. 2019. "Theoretical Basis for Parent-Child Interaction Therapy With Autism Spectrum Disorder." In *handbook on Parent-Child Interaction Therapy for Children on the Autism Spectrum*, edited by C. B. McNeil, L. B. Quetsch, and C. Anderson. Springer. https://doi.org/10.1007/978-3-030-03213-5.

Winter, B., and M. Wieling. 2016. "How to Analyze Linguistic Change Using Mixed Models, Growth Curve Analysis and Generalized Additive Modeling." *Journal of Language Evolution* 1, no. 1: 7–18. https://doi.org/10.1093/jole/lzv003.

Woolgar, F., H. Garfield, T. Dalgleish, and R. Meiser-Stedman. 2022. "Systematic Review and Meta-Analysis: Prevalence of Posttraumatic Stress Disorder in Trauma-Exposed Preschool-Aged Children." *Journal of the American Academy of Child & Adolescent Psychiatry* 61, no. 3: 366–377. https://doi.org/10.1016/J.JAAC.2021.05.026.

Xian-Yu, C., N. Deng, J. Zhang, et al. 2022. "Cognitive Behavioral Therapy for Children and Adolescents With Post-Traumatic Stress Disorder: Meta-Analysis." *Journal of Affective Disorders* 308: 502–511. https://doi.org/10.1016/j.jad.2022.04.111.

10990879, 2026, 2, Downloaded from https://onlinelibrary.wiley.com/doi/10.1002/cpp.70263 by Turkey Cochrane Evidence Aid, Wiley Online Library on [11/04/2026]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

Appendix A

TABLE A1 | Information on the content and required materials of the TFI-PCIT module.

Therapy session	Contents	Materials
Psychoeducation Session	Information on the progression of the TFI-PCIT module and trauma-specific psychoeducation tailored to the child's experience (maltreatment, divorce, bullying, etc.)	TFI-PCIT manual Psychoeducation materials
Colour breathing-focused session	Colour Breathing instruction (for parent only) Colour breathing practice Colour breathing coaching (if necessary) CDI coding CDI coaching (if necessary)	TFI-PCIT manual DPICS-4
Emotion support-focused session 1	Emotion support activity instruction (for parent only) Colour breathing activity CDI coding CDI coaching (if necessary) Implementation of the emotion support activity	TFI-PCIT manual DPICS-4 "Emotion cards" activity "my faces" activity
Emotion support-focused session 2 (applied if the parent did not meet expertise criteria in the first session)	Emotion support activity training (parent only) Colour breathing activity CDI coding CDI coaching (if necessary) Implementation of the emotion support activity	TFI-PCIT manual DPICS-4 "Sands of time" activity materials
Safety perception strengthening session 1	Safety perception strengthening activity training (parent only) Colour breathing activity CDI coding CDI coaching (if necessary) Implementation of the safety perception strengthening activity	TFI-PCIT manual DPICS-4 I Was Once Very Scared storybook
Safety perception strengthening session 2 (applied if the parent did not meet expertise criteria in the first session)	Safety perception strengthening activity instruction (for parent only) Colour breathing activity CDI coding CDI coaching (if necessary) Implementation of the safety perception strengthening activity	TFI-PCIT manual DPICS-4 Storybook tailored to the child's specific trauma
Safety perception strengthening session 2 (applied if the parent did not meet expertise criteria in the first session)	Safety perception strengthening activity training (parent only) Colour breathing activity CDI coding CDI coaching (if necessary) Implementation of the safety perception strengthening activity	TFI-PCIT manual DPICS-4 Let us stay inside together activity materials

10990879, 2026, 2, Downloaded from https://onlinelibrary.wiley.com/doi/10.1002/cpp.70263 by Turkey Cochrane Evidence Aid, Wiley Online Library on [11/04/2026]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

TABLE A2 | The detailed explanation of the phases included in the TFI-PCIT module.

Psychoeducation	The TFI phase begins with psychoeducation provided to families about trauma. The psychoeducation focuses on helping parents recognize traumatic events and PTSD symptoms, as well as understand what they can do to cope with these situations. Additionally, the psychoeducation provides information about the trauma-focused activities to be implemented within the TFI module. Among these, detailed information is provided about the Colour Breathing practice, which is introduced during the TFI phase. Colour Breathing is an activity used in the TFI module to help the traumatized child relax and calm down.
Emotional support	This phase includes activities designed to develop the child's ability to identify, understand, and express emotions. These activities include the "My Faces" worksheet, "Emotion Cards," and the "Sands of Time" activity. In these sessions, the parent is encouraged to increase the child's emotional awareness and to engage them in discussions about their emotions. Parents are asked to supportively guide the child in managing their emotions by asking when they experience negative feelings (e.g., anger and sadness) and providing affirming and helpful responses.
Enhancing the sense of safety	In this phase, two storybooks and the activity titled Let us Stay Inside Together are used. The first story, Once I Was Very Very Scared by Ippen and Ippen (2017), addresses general fear, conveying that fear and anxiety are normal, that anyone can experience them, and that there are things a child can do in response. The second story, developed by the researcher, is specifically tailored to address the child's own traumatic experience. By reading the story together with the child, the parent supports the child in expressing their fears. For every fear the child voices, the parent is encouraged to reassure them that they are now safe and that their parents are always by their side. Throughout this process, the parent remains in active interaction with the child, encouraging them to reflect on the story and express their thoughts. In the Let us Stay Inside Together activity, coloured floor mats are matched with different emotions. After matching emotions with colours, the parent and child step onto each colour, and the child is asked to identify the emotion, explain it, and describe when they have felt it. If there are emotions that the child hesitates or fears to approach, they are encouraged to step onto those emotions together with the parent. This supports the child in expressing and processing emotions they may find difficult to talk about, with the help of parental support. Throughout the activity, the parent continues to provide affirming and reassuring messages, emphasizing that they are present and the child is safe

TABLE A3 | Forms used during the therapy process.

Instruments/forms	Pretest	CDI	PDI	TFI	Post-test	Follow
Forms						
DPCIS-4		X	X	X		
WACB-P			X			
Colour breathing checklist				X		
Emotion support session checklist				X		
Safety perception strengthening session checklist 1 and 2				X		
Sands of time checklist				X		
Let us stay inside together checklist				X		
Instruments						
ECBI intensity and problem	X				X	X
Child trauma (CATS)	X				X	X
Child emotion regulation	X				X	X
Parent trauma (PCL-5)	X					
Parental burnout	X				X	X
Parental stress	X				X	X

10990879, 2026, 2, Downloaded from https://onlinelibrary.wiley.com/doi/10.1002/cpp.70263 by Turkey Cochrane Evidence Aid, Wiley Online Library on [11/04/2026]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

TABLE A4 | Sample characteristics and measurement scores at baseline.

		Total	Intervention	Control	Statistic
		N **= 19**	***N*** **= 9**	***N*** **= 10**	(***t*** **-test or** χ^2)
Demographic information					
Child mean age ($\bar{x}$)		6.05 (SS = 1.60)	6.30 (SS = 1.56)	5.80 (SS = 1.68)	$t(18) = 0.687$, $p = 0.501$
Child gender	Female	6	4	2	$\chi^2(1) = 3.81$, $p = 0.051$
	Male	13	5	8	
Parent gender	Female	15	7	8	$\chi^2(1) = 0.014$, $p = 0.906$
	Male	4	2	2	
Marital status	Married	16	7	9	$\chi^2(1) = 0.532$, $p = 0.466$
	Divorced	3	2	1	
Educational level	Middle school	3	1	2	$\chi^2(2) = 2.574$, $p = 0.276$
	High school	2	2	0	
	University	14	6	8	
Employment status	Unemployed	6	3	3	$\chi^2(1) = 0.24$, $p = 0.876$
	Employed	13	6	7	

		Baseline measurements		
		Intervention	Control	Statistics
		N **= 10**	***N*** **= 10**	(***t*** **-test**)
Child measures		**M (SD)**	**M (SD)**	
Child trauma symptoms		19.00 (5.49)	17.10 (9.59)	$t(18) = 0.543$, $p = 0.594$
ECBI	Intensity	153.20 (27.09)	21.50 (7.51)	$t(18) = 1.42$, $p = 0.172$
	Problem	24.00 (6.96)	59.60 (8.34)	$t(18) = 0.772$, $p = 0.450$
Child emotion regulation		51.70 (8.68)	59.60 (8.34)	$t(18) = -2.075$, $p = 0.053$
		Parent measures		
		N **= 9**	***N*** **= 10**	
Parental trauma symptoms		28.00 (11.00)	26.00 (12.88)	$t(17) = 0.362$, $p = 0.722$
Parental stress		88.22 (30.41)	78.50 (22.30)	$t(17) = 0.801$, $p = 0.434$
Parental burnout		64.33 (33.40)	47.80 (26.30)	$t(17) = 1.205$, $p = 0.245$

TABLE A5 | Therapy phases attended by participants.

Participants	CDI	PDI	TFI	TOPLAM
Case 1	8	4	4	16
Case 2	8	4	4	16
Case 3	9	5	4	18
Case 4	8	4	4	16
Case 5	5	—	5	10
Case 6	6	—	5	11
Case 7	8	5	4	17
Case 8	8	—	7	15
Case 9	5	—	7	12

10990879, 2026, 2, Downloaded from https://onlinelibrary.wiley.com/doi/10.1002/cpp.70263 by Turkey Cochrane Evidence Aid, Wiley Online Library on [11/04/2026]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

TABLE A6 | Themes and interview statements related to child results.

Emotion regulation	
	P5—You can see it yourself, she enters the therapy room happier. At home, she jokes and laughs with us. She teases her sibling. These changes made me very happy. The activities we did during the TDI phase were very effective... My daughter was very frozen before starting therapy. She did not have any facial expressions. Even when she fell and hurt herself badly, she would not cry.
	P7—When he got angry, he would scratch his face with his nails. He was covered with wounds and bleeding, you saw that too. He used to say, 'I do this to make you sad,' and we could not stop him. Not knowing the reason upset us deeply. We did not know what to do. Now, he no longer harms his face. Especially the trauma sessions helped greatly; when he gets angry, he practices breathing. His hand still goes to his face sometimes, but he no longer scratches. His face has healed... Seeing him manage his anger now makes us very happy.
Increased self-confidence	
	P3—My son's self-confidence increased. As his confidence improved, our trust in him also increased. Previously, we would think 'He cannot do it,' but now we see that he can, and we give him the opportunity to try.
	P7—When the process was completed, we saw a child who has become much more self-confident.
	P9—In the first session, when the tower he built collapsed, he asked me if I was going to cry. Now, even if it collapses, we just start again and build it together.
Self-expression (emotions and thoughts)	
	P3—We wanted him to express himself more comfortably. We could understand him, but others, strangers, could not. He could not fully express his emotions and thoughts ... Now, instead of expressing his feelings by shouting or acting aggressively, he says, 'I'm sorry, forgive me.' He expresses his feelings verbally.
	P4—She knew emotions but could not express them or perhaps did not know how to say them. She understood but could not verbalize them to me. Now, outside, for example, if someone cuts their hand, she says things like, 'Oh mom, it's hurt,' or 'Mom, grandma got angry.' She now recognizes anger, fear, and worry. When she's happy, she tells me things like, 'Mommy, I'm so happy that you did this for me.'
	P5—For example, she had not told me about an incident at school despite me repeatedly asking about it. But during the emotional activity, she spontaneously talked about it and cried. As you suggested, I've since tried to maintain communication, showing her that I listen and stand by her side ... Especially after the trauma sessions, she started talking to me more. Now we can talk about our feelings. When my daughter seems unhappy, I ask her what's making her unhappy or say, 'You look very happy today; I'm curious why.' Then she responds and tells me about the memories that made her happy or sad.
	P8—He could not express himself outside. When a familiar adult said something, he would completely shut down and not respond. If he was hungry, he would never say it or eat anything outside. When something bad happened outside, he would not tell me. I could sense something happened, but he would not say a word. This really frightened me.
	P9—She would not express herself to me. She would not tell me what she did; it seemed like she was cautious or hesitant around me ... Now we sit and talk; she tells me about what she's done, and we spend time together ... She comes spontaneously to help me, being careful with her things so I do not get tired. It makes me very happy that she thinks of me. I can say she's opened up more.
	P1—While previously she would not tell me anything she experienced and was completely withdrawn, after every therapy session she would tell me things in the car, like, 'Did you know this happened like this?' Once she relaxed, she started opening up and telling me about her experiences. Before therapy, she experienced things we did not even know about. After each therapy session, she began sharing these with us. In this sense, I can say that I've reached my goals ... She's now a more talkative and calmer child.

(Continues)

10990879, 2026, 2, Downloaded from https://onlinelibrary.wiley.com/doi/10.1002/cpp.70263 by Turkey Cochrane Evidence Aid, Wiley Online Library on [11/04/2026]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

TABLE A6 | (Continued)

Emotion regulation	
Reduced behavioural problems	
	P1—During this process, his compliance increased. My communication with my child improved. He argues less with me and with others. He follows the rules and even warns others who do not. People around me ask, 'What did you do?'... Previously, he would suddenly scream and become angry for no reason, teasing his sibling. We greatly overcame these behavioural problems in this process. We were very worried if this situation would pass.
	P3—In our home, there was no longer any order or discipline. We wanted our son to be accepted by society. He had disturbing behaviours... There was a lack of rules at home. Establishing rules positively affected our child. We realized that every child needs rules.
	P4—I wanted her to listen and become a more compliant child. Especially, I wanted my daughter to listen to me and not ignore me... She used words like 'Why should I listen to you?' After this process, she does not argue with me as much anymore. Even though it occasionally happens, I now know how to handle it. Instead of responding, I ignore it, and she does not persist with stubbornness.
	P6—Now she does not cry as much. She no longer uses crying to get what she wants. Previously, her sister and I would panic and did not know what to do so she would not cry. Her sister behaved like her mother to prevent me from getting upset.
	P8—He used to whine a lot and never listened to us. He intentionally did things that I told him not to do.

TABLE A7 | Themes and Interview Statements Related to Parent Results.

Positive mental health	
	P3—After seeing the changes in our child, we felt so relieved. Even the atmosphere at home changed. It was very good for us not to have shouting and chaos at home.
	P4—Let me first say, I was very tired when I came here. Among this tiredness, I found healing, so to speak. I wanted to understand what was wrong with my child and what the solution was. I did not even know what the problem was... I had no hope because of my child. You helped me greatly. In social settings, I was constantly criticized and judged ... When I first came, I hated myself. I thought I was a bad mother. My daughter was born late, and I used to say to myself, 'You're an inadequate mother even for this child's smallest needs.' I started blaming myself, thinking if I were a good mother, my child would not be this way. I believed I had failed to raise her properly.
	P5/6—Having someone each week with whom I could share what I was going through and getting your support was very beneficial. Because I was deeply affected by the situation myself. I do not even want to remember those things. There were times when I cried a lot while telling you. Here, I could get support. Being able to discuss both the progress and setbacks in myself and my children was helpful because sometimes I did not know what to do."
	P5/6—In this sense, the process was very beneficial for me.
	P7—this place was truly good for us. Every week we would tell you about what happened at home. Even just talking was relieving for us ... That made us feel better.
	P8—I had many question marks. But as we continued, I saw the changes in my son. When he changed, I started believing it was possible. As he improved, I felt happier. As the negative comments from my surroundings changed into questions about what I had done right, I saw myself as a very good mother.
	P9—I felt very guilty. I was the person responsible for putting my child into this situation. I had expected things far beyond his age. I wasn't aware of what I was doing. I realized the consequences very late ... Because of that, I do not want to remember my old self. Despite how hard the times we went through were, our children are everything to us. We should not reflect our problems onto them. Now I know that those times have passed and ended. I'm looking ahead, thinking about the future.

(Continues)

10990879, 2026, 2, Downloaded from https://onlinelibrary.wiley.com/doi/10.1002/cpp.70263 by Turkey Cochrane Evidence Aid, Wiley Online Library on [11/04/2026]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

TABLE A7 | (Continued)

Positive mental health	
Increased self-efficacy	
	P1—i learned that he is an individual and that I need to understand him. I became a mother who can talk about everything. I was able to give him this confidence during this process. Now when something negative happens, I know I can manage it better.
	P2—Before this, I did not know what to do. We were restless and worried. We constantly asked whether this situation would pass and how it could improve. I was going to the school anxiously four or five times a day.
	P3—There was a mother who did not know what to do because of pressure from teachers and surroundings. During the first stage, CDI, I broke myself. I tried stepping outside of myself. I previously thought my behaviours were normal and good. After seeing the changes in Giray, we became very relieved; even the atmosphere at our home changed.
	P4—I have only one child, a different child, and I had no information... I could not set any rules or get her to listen. Of course, I had my own mistakes too-simply not knowing. Because I did not know, I could not manage. Here, I learned how we could play together, how to behave, how to build healthy communication through play. There was so much I did not know. I used to play games but had no idea how. Now I manage much better. Those were very hard times for me personally. I had no hope, but now I feel like a top-notch mother.
	P5/6—I was exhausted from going to so many institutions. Finally, when they directed me here, I learned how to behave with my children.
	P7—We felt like someone was by our side. We corrected things we knew wrongly. We were doing so many things incorrectly. Now we know the right way. I trust my son, and he trusts us.
Increase communication and interaction	
	P1—We increased our emotional sharing. We started talking about feelings like happiness and sadness. I learned from you, and he learned from me. The divorce process negatively affected our interactions, but with the therapy, we minimized that negativity. If I had not come here and learned what I did from you, our interactions would not be this good now-they might have worsened.
	P2—With what you taught us, now I can understand him better, I became a better listener, and I encourage him to speak more openly. I can intervene immediately when something happens. Now I feel I can handle difficulties much better. I'm more aware of my behaviour.

10990879, 2026, 2, Downloaded from https://onlinelibrary.wiley.com/doi/10.1002/cpp.70263 by Turkey Cochrane Evidence Aid, Wiley Online Library on [11/04/2026]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License