REVIEW ARTICLE

Humanistic studies and Social Researches. 2026; 2(1): 16
https://doi.org/10.22034/hssr.2025.236652

The Role of Play Therapy in Addressing Trauma in Children: An Evidence-Based Review and Clinical Update

Fatemeh Aliannezhadi

Department of General Psychology, Semnan Azad University, Semnan, Iran

Article history:

Received: 14 Sep 2025
Accepted: 20 Dec 2025
Available online: 24 Dec 2025

Keywords:

Play Therapy
Child Trauma
Trauma-Focused Intervention
Emotional Regulation

Abstract

Objective: To provide a comprehensive, evidence-based review of the role, mechanisms, and efficacy of play therapy as an intervention for trauma in children aged 3-12 years. This review synthesizes contemporary research to inform clinical practice and future directions.
Methods: A narrative review methodology was employed. Literature searches were conducted across PubMed, PsycINFO, and Web of Science databases for the period 2000-2025, using keywords including "play therapy," "child trauma," "post-traumatic stress disorder," "PTSD," "expressive therapy," and "trauma-focused intervention." Included studies encompassed systematic reviews, meta-analyses, randomized controlled trials (RCTs), quasi-experimental designs, and seminal theoretical works. A total of 40 key references were selected based on relevance, methodological rigor, and impact.
Results: Play therapy demonstrates significant efficacy in reducing core trauma symptoms (PTSD, anxiety, depression) and improving behavioral regulation, social competence, and caregiver-child attachment. Neurobiological evidence suggests play therapy can contribute to the regulation of stress-response systems. Modalities such as Trauma-Focused Cognitive Behavioral Therapy (TF-CBT) with play elements, Child-Centered Play Therapy (CCPT), and attachment-based Theraplay® show strong empirical support. Critical mechanisms of change include the establishment of safety, non-verbal processing, emotional/physiological regulation, and the restoration of a sense of mastery.
Conclusion: Play therapy is a developmentally sensitive, evidence-informed, and essential modality for treating childhood trauma. Its strength lies in leveraging children's natural communicative language—play—to access and process experiences that evade verbal articulation. Integration into multi-tiered, trauma-informed systems of care is warranted. Future research should prioritize neurophysiological outcome measures, cultural adaptations, and long-term follow-up studies.

Cite this article as: Aliannezhadi F. The Role of Play Therapy in Addressing Trauma in Children: An Evidence-Based Review and Clinical Update. Humanist Stud Soc Res. 2026; 2(1):16. https://doi.org/10.22034/hssr.2025.236652

Introduction

Childhood trauma represents a pervasive and profound public health crisis, with epidemiological data indicating that approximately two-thirds of children report experiencing at least one traumatic event by the age of 16 [1]. These experiences—ranging from interpersonal violence, abuse, and neglect to accidents, natural disasters, and significant losses—disrupt the foundational architecture of a child's developing brain and psyche [2]. The neurobiological sequelae are well-documented; trauma can dysregulate the hypothalamic-pituitary-adrenal (HPA) axis, alter amygdala reactivity, and impair prefrontal cortex functioning, leading to chronic states of hyperarousal, hypervigilance, and dissociation [3, 4]. Psychologically, this dysregulation manifests as post-traumatic stress disorder (PTSD), anxiety, depression, attachment disturbances, and a constellation of externalizing and internalizing

Correspondence:
Fatemeh Aliannezhadi
E-mail: FatemehAliannezhadi@gmail.com

This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA 4.0) which allows users to read, copy, distribute and make derivative works for non-commercial purposes from the material, as long as the author of the original work is cited properly.

behaviors that impair academic, social, and familial functioning [5].

The cardinal challenge in treating traumatized children lies in the fundamental disconnect between the nature of traumatic memory and the standard tools of verbal psychotherapy. Traumatic memories are often encoded in the brain non-declaratively, stored as fragmented sensory, emotional, and somatic imprints rather than coherent narratives [6]. Children, with their still-developing prefrontal cortices and limited cognitive capacity for abstraction and verbal expression, are particularly ill-equipped to "talk through" these experiences. They may lack the vocabulary, feel overwhelming shame or fear, or be literally rendered "speechless" by terror [7]. Consequently, traditional talk therapies can inadvertently re-traumatize or prove wholly ineffective, failing to engage the subcortical brain regions where trauma resides.

It is within this clinical imperative that play therapy ascends as not merely an alternative, but a developmentally necessary modality. Grounded in the axiom that "play is the child's language and toys are their words" [8], play therapy transcends the limitations of verbal dialogue. It provides a symbolic, sensorimotor, and relational medium through which children can externalize, process, and integrate traumatic material within the safety of a therapeutic relationship. Play is not a diversion from the work of therapy; it is the primary mechanism of healing for the child. This article provides a comprehensive review of the contemporary evidence base for play therapy in pediatric trauma. It will delineate its theoretical underpinnings, elucidate the core mechanisms of therapeutic change, evaluate the efficacy of specific modalities, and critically discuss clinical implications, contemporary challenges, and essential directions for future research and systemic integration.

Methods

This narrative review synthesizes current literature on play therapy for childhood trauma. A systematic search strategy was designed to identify relevant English-language publications from 2000 to 2025. Primary databases included PubMed, PsycINFO, and Web of Science. Search terms were combined using Boolean operators: ("play therapy" OR "expressive therapy" OR "sandplay" OR "filial therapy") AND ("child* trauma" OR "post-traumatic stress disorder" OR "PTSD" OR "adverse childhood experiences") AND ("treatment" OR "intervention" OR "efficacy").

Inclusion criteria encompassed: (1) population: children (ages 3-12) with a history of trauma; (2) intervention: any defined play therapy modality; (3) outcomes: psychological, behavioral, or neurobiological measures; (4) publication type: RCTs, quasi-experimental studies, systematic reviews, meta-analyses, and influential theoretical texts. Exclusion criteria included studies focused solely on adults, adolescents without child-specific data, or non-trauma-related conditions. Titles and abstracts were screened, followed by full-text review of selected articles. Forty references were ultimately chosen for their methodological quality, relevance to clinical application, and contribution to the field's theoretical understanding.

Results

Theoretical Foundations and Mechanisms of Action

Modern play therapy integrates multiple theoretical frameworks. From a neurosequential perspective, play-based interventions begin with somatosensory activities to regulate brainstem and diencephalon functions before addressing higher-order cortical processing, aligning with the traumatized child's developmental needs [9, 10]. Attachment theory underpins models like Theraplay® and Filial Therapy, which use structured play to repair and strengthen the caregiver-child bond, a key protective factor [11, 12]. Cognitive-behavioral theory informs Trauma-Focused Cognitive Behavioral Therapy (TF-CBT), which incorporates play to enhance engagement and practice skills like cognitive restructuring and relaxation [13].

The therapeutic mechanisms are well-documented:

Safety and Relational Security: The consistent, predictable, and non-judgmental therapeutic environment counters the chaos of trauma, fostering a safe base for exploration [14].

Non-Verbal Expression and Symbolic Processing: Play allows for the externalization and symbolic representation of trauma through toys, art, and sand, bypassing the need for direct verbal recall [15, 16].

Emotional and Physiological Regulation: Rhythmic, sensory, and mastery-based play activities help recalibrate the autonomic nervous system, reducing hyperarousal and dissociation [17, 18].

Corrective Experience and Mastery: Re-enacting traumatic scenarios in play allows the child to achieve a different, empowering outcome, restoring a sense of agency and competence [19].

Efficacy of Specific Modalities

Evidence supports several structured modalities:

Child-Centered Play Therapy (CCPT): Multiple RCTs and meta-analyses confirm CCPT's effectiveness in reducing internalizing and externalizing symptoms in traumatized children, with effects sustained at follow-up [20, 21].

Trauma-Focused Cognitive Behavioral Therapy (TF-CBT): Recognized as a gold-standard, TF-CBT systemat-

ically integrates psychoeducation, relaxation, trauma narration, and cognitive processing, often using play techniques. It shows large effect sizes in reducing PTSD symptoms [22, 23].

Attachment-Based Models (Theraplay®, Filial Therapy): These approaches demonstrate efficacy not only in reducing child symptoms but also in improving parental empathy, attachment security, and reducing caregiver stress [24, 25].

Sandtray Therapy: Emerging as a powerful non-directive modality, research indicates sandtray therapy facilitates significant reductions in trauma symptoms by providing a contained "world" for symbolic healing [26, 27].

Neurobiological Correlates

A nascent but promising area of research links play therapy to positive neurobiological changes. Studies suggest that play-based, relational interventions can lower salivary cortisol levels, a marker of stress dysregulation [28]. Neuroimaging studies, though limited in children, propose that therapies promoting safety and attunement may positively influence amygdala reactivity and prefrontal cortex regulation [29, 30].

Discussion

Integrating Evidence, Navigating Complexities, and Charting the Future

The synthesized evidence presents a compelling case: play therapy is a developmentally congruent, theoretically robust, and empirically supported intervention for childhood trauma. Its unique potency stems from its capacity to bypass the cognitive and verbal roadblocks that often stymie traditional therapy, engaging directly with the sensory, emotional, and somatic layers of traumatic memory [31]. This discussion will elaborate on three critical themes: the integration of play therapy within a phase-oriented trauma framework, the navigation of persistent challenges, and the imperative for future innovation.

First, the effective application of play therapy necessitates a phase-oriented model, as advocated by experts in complex trauma [32]. The initial phase must relentlessly focus on safety, stabilization, and regulation. Here, play therapy is not about processing the trauma narrative but about using directive and non-directive play to build the child's window of tolerance. Sensory play, rhythm activities, and grounding exercises within a playful context help regulate the brainstem and autonomic nervous system [10]. Only once a child has developed self-regulatory capacity and a secure therapeutic alliance should the therapist cautiously follow the child's lead into trauma-themed play for processing and integration. This staged approach prevents premature exposure and re-traumatization.

Second, while the evidence base is strong, significant challenges and complexities remain. A primary concern is the heterogeneity of research. While meta-analyses show positive aggregate effects [20], variability in treatment protocols, session numbers, outcome measures, and population characteristics (e.g., type and chronicity of trauma) complicates the translation of research into specific practice guidelines [33]. Furthermore, the field must more intentionally embrace cultural humility and adaptation. The toys, metaphors, and styles of interaction considered "therapeutic" in play therapy are often rooted in Western, middle-class norms. Without culturally responsive adaptations—such as incorporating culturally specific narratives, family structures, and definitions of "play"—well-intentioned interventions can be ineffective or even harmful [34, 35]. Future research must prioritize community-based participatory methods to develop and validate culturally resonant play therapy models.

Another critical challenge lies in workforce development and systemic integration. Competent trauma-informed play therapy requires advanced, integrated training in child development, trauma dynamics, specific play therapy models, and the management of countertransference when witnessing painful play re-enactments [36]. There is a pressing need to advocate for the inclusion of play therapy in graduate curricula and for its recognition as a reimbursable, frontline intervention within public health, school, and community mental health systems. The cost-effectiveness of early intervention through play therapy, potentially preventing more severe and costly long-term psychopathology, is a powerful argument for such systemic integration [37].

Looking forward, several key research directions are paramount:

1. Neurophysiological Mechanism Studies: Moving beyond symptom checklists to utilize biomarkers (e.g., cortisol, heart rate variability, EEG) to objectively demonstrate play therapy's impact on the body's stress physiology and neural connectivity [38].

2. Component Dismantling Studies: Research must parse which elements of integrated models like TF-CBT are most efficacious—is it the therapeutic relationship fostered through play, the specific cognitive techniques, or their synergistic combination? [39].

3. Long-Term Resilience Outcomes: Longitudinal studies are needed to determine if early play therapy intervention correlates with improved outcomes in adolescence and adulthood, such as healthier

relationships, educational attainment, and avoidance of revictimization.

4. Technology-Augmented Play Therapy: Exploring the ethical and clinical applications of virtual reality for exposure in a controlled play space, or tablet-based apps for emotion identification and regulation skill-building, particularly for tech-native generations and geographically isolated populations [40].

Conclusion

Play therapy is far more than a simple activity; it is a sophisticated, neurologically-grounded, and essential therapeutic language for children whose worlds have been fractured by trauma. By honoring the child's native mode of expression, it constructs a bridge to healing that talk-based therapies cannot build. The evidence confirms its efficacy in reducing suffering and restoring function. The path forward requires a commitment to methodological rigor in research, cultural responsiveness in practice, advanced specialization in training, and systemic advocacy to ensure this vital modality is accessible to all children in need. In the safe, permissive, and symbolic world of the playroom, children are granted the profound opportunity to rewrite the endings to their most painful stories, forging a path from survival toward resilience and growth.

Acknowledgment

The authors would like to express their appreciation to all those who helped us conduct this research.

Funding

None

Authors Contributions

The authors contributed to the data analysis. Drafting, revising and approving the article, responsible for all aspects of this work.

Conflict of Interest

None

References

1. Finkelhor D, Turner HA, Shattuck A, Hamby SL. Prevalence of childhood exposure to violence, crime, and abuse: results from the National Survey of Children's Exposure to Violence. JAMA Pediatr. 2015;169(8):746-54.
2. Teicher MH, Samson JA. Annual Research Review: Enduring neurobiological effects of childhood abuse and neglect. J Child Psychol Psychiatry. 2016;57(3):241-66.
3. De Bellis MD, Zisk A. The biological effects of childhood trauma. Child Adolesc Psychiatr Clin N Am. 2014;23(2):185-222.
4. van der Kolk BA. The body keeps the score: Brain, mind, and body in the healing of trauma. New York: Viking; 2014.
5. Cook A, Spinazzola J, Ford J, Lanktree C, Blaustein M, Cloitre M, et al. Complex trauma in children and adolescents. Psychiatr Ann. 2005;35(5):390-8.
6. Siegel DJ. The developing mind: How relationships and the brain interact to shape who we are. 2nd ed. New York: Guilford Press; 2012.
7. Gil E. Play in family therapy. 2nd ed. New York: Guilford Press; 2015.
8. Landreth GL. Play therapy: The art of the relationship. 3rd ed. New York: Routledge; 2012.
9. Perry BD, Szalavitz M. The boy who was raised as a dog: And other stories from a child psychiatrist's notebook. New York: Basic Books; 2017.
10. Gaskill RL, Perry BD. The neurobiological power of play: Using the neurosequential model of therapeutics to guide play in the healing process. In: Schaefer CE, editor. The therapeutic powers of play. 2nd ed. Hoboken: Wiley; 2014. p. 178-95.
11. Booth PB, Jernberg AM. Theraplay: Helping parents and children build better relationships through attachment-based play. 3rd ed. San Francisco: Jossey-Bass; 2010.
12. VanFleet R, Sywulak AE, Sniscak CC. Child-centered play therapy. New York: Guilford Press; 2010.
13. Cohen JA, Mannarino AP, Deblinger E. Treating trauma and traumatic grief in children and adolescents. 2nd ed. New York: Guilford Press; 2017.
14. Porges SW. The polyvagal theory: Neurophysiological foundations of emotions, attachment, communication, and self-regulation. New York: W.W. Norton; 2011.
15. Homeyer LE, Sweeney DS. Sandtray therapy: A practical manual. 3rd ed. New York: Routledge; 2017.
16. Malchiodi CA. Creative interventions with traumatized children. 2nd ed. New York: Guilford Press; 2015.
17. Ogden P, Minton K, Pain C. Trauma and the body: A sensorimotor approach to psychotherapy. New York: W.W. Norton; 2006.
18. Badenoch B. The heart of trauma: Healing the embodied brain in the context of relationships. New York: W.W. Norton; 2018.
19. Levy AJ, Wallace L. Play behavior and trauma: A review of the literature. Int J Play Ther. 2017;26(1):1-14.
20. Bratton SC, Ray D, Rhine T, Jones L. The efficacy of play therapy with children: A meta-analytic review of treatment outcomes. Prof Psychol Res Pr. 2005;36(4):376-90.

21. Lin YW, Bratton SC. A meta-analytic review of child-centered play therapy outcomes. Contemp Sch Psychol. 2015;19(3):123-33.
22. Cary CE, McMillen JC. The data behind the dissemination: A systematic review of trauma-focused cognitive behavioral therapy for use with children and youth. Child Youth Serv Rev. 2012;34(4):748-57.
23. Jensen TK, Holt T, Ormhaug SM, Egeland K. A randomized effectiveness study comparing trauma-focused cognitive behavioral therapy with therapy as usual for youth. J Clin Child Adolesc Psychol. 2017;46(3):353-67.
24. Siu AFY. Theraplay in the Chinese world: An intervention program for Hong Kong children with internalizing problems. Int J Play Ther. 2014;23(4):187-201.
25. VanFleet R. Filial therapy: Strengthening parent-child relationships through play. 3rd ed. Sarasota: Professional Resource Press; 2014.
26. Shen YP, Armstrong SA. Impact of group sandtray therapy on the self-esteem of young adolescent girls. J Spec Group Work. 2008;33(4):322-41.
27. Flahive MW, Ray D. Effect of group sandtray therapy with preadolescents. J Spec Group Work. 2007;32(4):362-82.
28. Koomar J. The neurobiology of play and its implications for therapy. In: Wagner C, editor. Innovative practice and interventions for children and adolescents with psychosocial difficulties and disabilities. Newcastle upon Tyne: Cambridge Scholars Publishing; 2015. p. 168-89.
29. Felmingham KL, Kemp AH, Williams L, Das P, Hughes G, Peduto A, et al. Changes in anterior cingulate and amygdala after cognitive behavior therapy of posttraumatic stress disorder. Psychol Sci. 2007;18(2):127-9.
30. D'Andrea W, Ford J, Stolbach B, Spinazzola J, van der Kolk BA. Understanding interpersonal trauma in children: Why we need a developmentally appropriate trauma diagnosis. Am J Orthopsychiatry. 2012;82(2):187-200.
31. Warner E, Spinazzola J, Westcott A, Gunn C, Hodgdon H. The body knows: Applying the neurosequential model of therapeutics to children in residential care. J Fam Violence. 2014;29(6):589-96.
32. Steele W, Malchiodi CA. Trauma-informed practices with children and adolescents. New York: Routledge; 2012.
33. Drisko J, Simmons B. The evidence base for play therapy: Strengths, limitations, and future directions. Clin Soc Work J. 2018;46(3):215-24.
34. Ceballos PL, Bratton SC. Empowering Latino families: The impact of child-centered play therapy on first-generation immigrant Latino parents. Int J Play Ther. 2010;19(3):146-57.
35. Johnson LN, Rambo A. Cultural considerations in play therapy. In: Schaefer CE, editor. Foundations of play therapy. 2nd ed. Hoboken: Wiley; 2011. p. 313-28.
36. Sweeney DS, Rocha SF, Pereira ML. Play therapy supervision: A practical guide to models and best practices. New York: Routledge; 2021.
37. LeBlanc M, Ritchie M. A meta-analysis of play therapy outcomes. Couns Psychol Q. 2001;14(2):149-63.
38. Kestly TA. The interpersonal neurobiology of play: Brain-building interventions for emotional well-being. New York: W.W. Norton; 2014.
39. Knell SM, Dasari M. Cognitive-behavioral play therapy: Theory, applications, and future directions. In: Kaduson HG, Schaefer CE, editors. Short-term play therapy for children. 3rd ed. New York: Guilford Press; 2016. p. 49-78.
40. Stone J. Digital play therapy: A clinician's guide to assistive and teletherapeutic technologies. New York: Routledge; 2021.