Original Research Article

Efficacy of Cognitive Behavioral Therapy Compared to Other Evidence-Based Mental Health Interventions in Children and Adolescents with Symptoms of Childhood Adversities: A Scoping Review

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ABSTRACT

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| **Aims:** To assess the relative efficacy of Cognitive Behavioral Therapy (CBT) compared to other proven therapies in improving mental health for children and adolescents affected by childhood trauma.**Study design:** Scoping Review**Methodology:** As part of the scoping review, a structured literature search of PubMed, Medline (EBSCO), PsychAPA, CINAHL, and Google Scholar identified studies published from January 1, 2022, to December 31, 2024, on evidence-based mental health interventions for minors experiencing trauma. English-language studies on cognitive behavioral therapy (CBT) or related interventions, either standalone or integrated, were included. Duplicates were removed, and references were reviewed for completeness. Data extracted included author, year, intervention type, therapy level, age group, and summarized findings. Eligible publication types were research articles, peer-reviewed articles, and systematically curated reviews.**Results:** The review synthesized findings from 26 studies published between 2022 and 2024, concentrating on therapeutic interventions for children and adolescents who have experienced adverse childhood experiences (ACEs). Trauma-focused cognitive behavioral therapy (TF-CBT) was identified as the most efficacious intervention, demonstrating robust effectiveness in alleviating symptoms of PTSD, anxiety, and depression across a range of clinical settings. The reviewed studies utilized diverse methodological approaches and predominantly focused on PTSD, anxiety, and depressive disorders, with a subset addressing substance use disorders, bereavement, and interpersonal functioning. Notably, the review highlighted significant gaps in the literature regarding the exploration of broader psychological outcomes and the efficacy of interventions beyond TF-CBT.**Conclusion:** Trauma-focused cognitive behavioral therapy (TF-CBT) stands out as the most effective treatment for enhancing mental health in children and adolescents experiencing trauma-related symptoms. Modifications of CBT and combined approaches, such as psychoeducation and family-oriented strategies, also play a significant role in diminishing post-traumatic stress symptoms and boosting resilience. |

*Keywords: Minors, Posttraumatic Stress Disorder (PTSD), Cognitive Behavioral Therapy, psychological intervention, Adverse Childhood Experiences.*

1. INTRODUCTION

According to the Centers for Disease Control and Prevention (CDC), adverse childhood experiences (ACEs) are traumatic events that occur in the early developmental stages between 0 and 17 years.[1] and they are drivers of long-term psychological and emotional challenges in minors.[2] These preventable experiences are in the form of abuse or neglect that may be inflicted physically, emotionally, or even sexually, or living in a dysfunctional household.[3] A recent study by Swedo et al. (2024) found that approximately three out of four adolescents under 18 years of age self-reported at least one ACE experience, with about one in five indicating they had encountered four or more such experiences.[1],[2],[3] Adolescents with these adverse experiences mainly develop symptoms such as anxiety, depression, and post-traumatic stress disorder (PTSD) that may impede cognitive, educational attainment, and psychosocial development. [1],[4], [5],[6] Therefore, addressing these mental health repercussions through evidence-based approaches is critical to promoting resilience and improving developmental trajectories in affected children and adolescents. [7]

One proven therapeutic strategy is Cognitive Behavioral Therapy (CBT), which has emerged as a widely recognized and evidence-based intervention, particularly effective in addressing trauma-related symptoms and maladaptive thought patterns.[7],[8] Previous research in a meta-analysis demonstrated a sustained improvement in symptoms of ACEs for up to 12 months post-treatment, indicating the reliability of trauma-focused CBT in long-term outcomes. [9] Additionally, an empirical study suggests that younger adolescents, specifically those in the 14 to 16 age range, and female individuals demonstrate better responsiveness to cognitive-behavioral therapy (CBT) interventions.[10] These groups exhibit marked reductions in symptoms of anxiety, depression, and post-traumatic stress with notable enhancements in overall mental health outcomes.[9], [10], [11] Hence, the treatment outcomes for adolescents experiencing symptoms related to adverse childhood experiences (ACEs) can be significantly improved through evidence-based behavioral therapies.

 While CBT, particularly trauma-focused CBT, is highly effective and a gold standard for trauma-informed care, it is essential to recognize that not all subjects respond equally to this therapy. [12] Integrating CBT with other therapeutics may enhance positive outcomes in children with complex histories of trauma. [12] According to the CDC, other evidence-based psychotherapeutic approaches, including interpersonal therapy, dialectical behavior therapy, and trauma-focused play therapy, have also demonstrated efficacy in addressing the complex needs of minors with childhood adversities. [13] These interventions vary in their theoretical underpinnings, therapeutic mechanisms, and target outcomes, making it essential to evaluate their comparative effectiveness.[12] Hence, a holistic analysis of how CBT compares to other psychotherapeutic interventions in enhancing mental health outcomes can inform clinical decisions and help policymakers tailor strategies to address the specific needs of this vulnerable population effectively.

Despite the expanding research on various therapeutic modalities, especially during the recent pandemic era, there remains an inadequacy of detailed evidence directly comparing cognitive-behavioral therapy (CBT) with other evidence-based interventions, either as standalone treatments or in conjunction with additional therapeutic approaches, in pediatric populations experiencing symptoms stemming from childhood adversities. **The objective of this scoping review is to systematically examine the existing literature on trauma-focused cognitive-behavioral therapy (TF-CBT) and other empirically supported mental health interventions for children and adolescents with trauma-related symptoms. The review will focus on outlining the range of available CBT-based methodologies, their adaptations for diverse contexts, and their effectiveness in improving mental health outcomes and resilience among the affected population.** By synthesizing the available data, this study would highlight the relative strengths and weaknesses of these interventions, while also identifying future research trajectories and implications for clinical practice.

2. Method

A scoping review was conducted to examine the literature and summarize the evidence on the comparative effectiveness of cognitive behavioral therapy, along with other evidence-based mental health interventions, for children and adolescents experiencing symptoms related to traumatic events.

**2.1 Search strategy**

An exhaustive literature search was systematically conducted in the databases of PubMed, Medline (EBSCO), PsychAPA, CINAHL(Cumulative Index to Nursing and Allied Health Literature), and Google Scholar published between January 1st, 2022, and December 31st, 2024, to identify relevant studies. The search strategy included combinations of terms related to evidence-based mental health interventions and traumatic events in minors or underage individuals. The searches were conducted with a restriction to English-language publications. Duplicates were systematically removed from consideration. Furthermore, the references cited in all selected articles were scrutinized to identify any potentially overlooked studies. The full search for the databases was ("Behavioral therap\*" OR "Cognitive Behavioral Therapy" OR "CBT" OR "Mental health Intervention\*") AND (teenagers OR adolescents OR Minors) AND ("Adverse Childhood Experiences" OR "domestic violence" OR Trauma)

**2.2 Study selection**

Studies that described outcomes of cognitive behavioral therapy or other proven mental interventions as standalone or combined to treat symptoms of traumatic events in children and adolescents were included. In addition, publication types were eligible for inclusion if they were research articles, peer-reviewed articles, and different kinds of reviews that were systematically curated. Exclusion criteria encompassed studies that focused solely on adverse childhood experiences without detailing treatment interventions or outcomes related to cognitive-behavioral therapy (CBT) or other psychotherapeutic approaches in adult populations. Additionally, studies were excluded if they involved adult populations and symptoms were unrelated to any form of traumatic events or adverse experiences in children or adolescents. All titles and abstracts were independently screened and selected by the authors. Full-text articles were obtained and reviewed to determine whether the article met the eligibility criteria. If the articles' full texts were unavailable in the databases, the corresponding authors were contacted by email or ResearchGate (www.researchgate.net). Disagreements were resolved through discussion.

**2.3 Data extraction and analysis**

For each included study, information such as the author, publication year, publication type, types of interventions, level of therapy interventions (i.e., standalone and integrated interventions), age group, and a summary of findings or results was extracted. The interventions reported in these studies were described based on key domains of children and adolescents as the population of interest; various indications of adverse childhood events such as physical, emotional, and sexual abuse, domestic violence, dysfunctional households, and other trauma-inflicting occurrences; comparative effectiveness of evidence-based behavioral therapy, and treatment outcome. The authors independently completed the data extraction using a preformatted spreadsheet in Microsoft Excel. Disagreements were resolved through discussion.

The findings of this scoping review are conveyed through a narrative synthesis, given the diversity of the studies evaluated. The included studies were organized according to publication characteristics and summarized in a tabular format. Adhering to the PRISMA-ScR guidelines, no quality assessment was conducted, as the primary objective of scoping reviews is to holistically identify all relevant evidence and outline their key attributes, irrespective of methodological quality.

Figure 1



3. results and discussion

**3.1 Search results**

A comprehensive electronic search initially identified 81 potentially relevant studies. After eliminating duplicates and thoroughly assessing titles and abstracts, 32 articles were advanced to full-text evaluation. An examination of the reference lists from the selected articles revealed no additional pertinent studies. Ultimately, 26 studies met the inclusion criteria and were included in the review. Fig. 1 presents a flowchart detailing the literature search process.

**3.2 Characteristics of the Included Studies**

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| **Table 1** |
| **Characteristics of the Included Studies**  |
| **Author** | **Publication Year** | **Publication type** | **Age-Range(Years)** | **ACEs symptoms** |
| Thielemann et al. | 2022 | Systematic Review & Meta-Analysis  | Aged 3-21years | PTSS, anxiety, depression &grief |
| Thomas et al. | 2022 | Systematic review  |  Children and Youth | PTSD |
| Roberts et al. | 2023 | Systematic Review & Meta-Analysis of RCT | The age range of minors was not specified  | PTSD & Substance Use Disorder |
| Becker et al. | 2024 | Systematic Review  | Aged 10-24 years | PTSD and Substance Use Disorder |
| Davis et al. | 2023 |  Meta-Analysis | Aged 6 to 18 years | PTSD  |
| Morroni et al. | 2024 | Systematic Review | unaccompanied minors | PTSD, depression, and anxiety. |
| Kaminer et al. | 2023 |  Randomized controlled trial | Aged 11-19years | PTSD and depression  |
| Yohannan et al. | 2022 | Meta-Analysis | 18 years or younger |  PTSS, anxiety symptoms, and depressive symptoms. |
| De Haan et al. | 2024 | Meta-Analysis | Aged 6-18 years | PTSS, depression, and anxiety.  |

A comprehensive synthesis of findings derived from 26 studies published between 2022 and 2024 was conducted, concentrating on interventions designed for children and adolescents who have experienced adverse childhood experiences (ACEs). Detailed information is provided in Table 1. All studies were conducted in English, consisting of a diverse research methodological spectrum: eight systematic reviews and meta-analyses,[14], [15], [16], [17], [18], [19], [20], [21] four systematic reviews, three randomized controlled trials (RCTs),[22], [23], [24] one pilot clinical trial,[25] and one comparative study utilizing RCT designs.[26] These investigations aim to identify the most effective interventions for alleviating symptoms related to traumatic experiences in pediatric populations. The age range of participants across these studies spans from birth to 25 years, with most data focusing on those up to 18 years. Notably, eleven studies included participants older than 18 years([14], [20], [21], [23], [24], [27], [28], [29], [30], [31], [32]). The predominant symptoms addressed include post-traumatic stress disorder (PTSD) and post-traumatic stress symptoms (PTSS), with anxiety and depression also frequently examined. Specifically, depression and anxiety were the focal points in nine studies, while substance use disorders (SUDs) and grief were addressed in three studies in conjunction with trauma exposure. Furthermore, a limited number of studies considered other factors such as interpersonal functioning, psychiatric comorbidities, externalizing behavior problems, and attachment-related anxiety and avoidance. Overall, the review highlights the critical focus areas within this emerging body of research while indicating gaps in exploring various psychological outcomes following ACEs.

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| **Table 2** |
| **Characteristics of the Included Studies**  |
| Xie et al. | 2024 | Meta-Analysis | Aged 7–18 years | PTSD, depression, PTSS, or psychiatric comorbidities  |
| Protić et al. | 2024 | Systematic Review | Aged 10-19 years | trauma-related symptoms or PTSD, re-experiencing, avoidance |
| Hoogsteder et al. | 2022 | Meta-Analysis | Aged 11-21years | trauma symptoms or (partial) PTSD and externalizing behavior problems  |
| Gkintoni et al. | 2024 | Systematic Review & Analysis | Children (6-12 years) and adolescents (12-18 years), | PTSD |
| Thielemann et al. | 2024 | Meta-Analysis | Aged 3–21 years | PTSS, depression, anxiety, and grief  |
| Morison et al. | 2022 | QT Systematic Review & Meta-Analysis | Up to the age of 18 years old | Mild, moderate& severe PTSD |
| Hoppen et al. | 2023 | Meta-Analysis of RCT | Aged <19.0 years | full or partial PTSD |
| Smith et al. | 2024 | Systematic Review & Meta-Analysis | equal to or under 18 years | PTSD |
| Ahmadi et al. | 2024 | Comparative study of RCT | Childhood (birth-12 years); School Age (6-12 years); Adolescence (13-17 years) | PTSS |
| Rimane et al. | 2022 | Randomized Control Trial | Aged 14-21 years | PTSS, attachment-related (AR) anxiety, and AR avoidance |
| Phillips et al. | 2024 | Systematic Review & Meta-Analysis | Aged 5-25 years | PTSD |
| Guerra et al. | 2024 | Pilot Clinical Trial | Aged 13-17 years, | PTSS, depression, interpersonal functioning, and affect regulation |
| Roberts et al. | 2022 | Systematic Review & Meta-Analysis | children and young people below the age of 18 years | PTSD and substance use disorder (SUD) |
| Arora el al. | 2024 | Meta-Analysis | Aged 12 -19 years. | PTSD |
| Schreyer et al. | 2024 | Meta-Analysis | Aged 3-21 years | PTSS, outcomes of PTSS, depression, anxiety and grief. |
| Hoppen et al. | 2024 | Systematic Review-Network Meta-Analysis of RCT | Aged 19 years and younger | Pediatric PTSD severity |
| Ole Hultmann et al. | 2023 | Randomized Control Trial | aged 5-17 years | Severe trauma from exposure to family violence |

**3.3 Summary of Findings from Interventions and Treatment Outcomes**

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| Table 3 |
| **Summary of Findings from Interventions and Treatment Outcomes**  |
| **Author** | **Standalone Intervention** | **Integrative Intervention** | **Comparative &/or Standard Intervention** | **Results-Treatment Outcomes-Findings** |
| Thielemann et al. |  trauma-focused CBT | NA | control condition | considerable improvements across all outcomes from pre- to post-treatment  |
| Thomas et al. | NA |  trauma-focused CBT& cultural consideration | none | Effective CBT &improving psychosocial functioning |
| Roberts et al. | Stepped care prevention | NA | control condition |  Stepped care was more cost-effective and as acceptable as, or more acceptable than, the controls. Stepped care was not superior to other approaches at reducing PTSD in most studies. |
| Becker et al. | Individual therapy based on cognitive-behavioral principles | group interventions | NA | In traditional SUD-focused treatment, youth with a history of trauma often have greater attrition, faster relapse after treatment, and require more intensive therapy than their peers to achieve the same clinical outcomes. Long-term preventive interventions focused on prosocial skills and parenting quality, individual treatment based on CBT principles for SU and PTSD, and group interventions focused on skill development and empowerment have all been found effective. |
| Davis et al. | TF-CBT-based interventions | group-based TF-CBT treatments &Long-term preventive interventions | active or passive controls | While individual TF-CBT intervention is more effective, findings from this meta-analysis provide support for the use of group (particularly CBT-based) interventions for treating PTSD symptoms in trauma-exposed children and adolescents, with potential for related reductions in depression symptoms. Group interventions were superior when compared with either active or passive controls, at follow-up, and for depression symptoms.  |
| Morroni et al. | Trauma-Focused CBT  | NA |  Third-wave CBT interventions | TF-CBT has the most evidence demonstrating effectiveness in ameliorating symptoms. Increased mindfulness and psychological flexibility |
| Kaminer et al. | An abbreviated eight-session version of TF-CBT  | NA | Treatment as Usual (control group) | Intention-to-treat analyses found that the eight sessions of TF-CBT group had a significantly greater reduction than treatment-as-usual in CPSS-5 PTSD &depression symptom severity at post-treatment and three-month follow-up. |
| Yohannan et al. | cognitive behavioral techniques (i.e., psychoeducation, relaxation and coping techniques, cognitive training, and imaginal exposure), | cue-centered therapy, eye movement desensitization and reprocessing | waitlist control groups | CBT for children and adolescents exposed to traumatic events significantly reduces PTSS and depressive symptoms across a diverse array of measures when compared to other trauma treatments (e.g., cue-centered therapy, eye movement desensitization and reprocessing) or waitlist control groups. The present findings show that mean effects were higher for PTSS than for other outcomes (i.e., anxiety, depression).  |
| de Haan et al. | TF-CBTs | NA | passive and active control conditions | The analyses suggested that the efficacy of CBT-TF, relative to control conditions, was enhanced in participants with higher pre-treatment symptom levels. There was little evidence of moderating effects of any participant characteristic or caregiver involvement in CBT-TF. The impact of the duration of treatment (i.e., the number of CBT-TF sessions) needs further evaluation. |
| Xie et al. | Group TF-CBT  | NA |  control condition | Subgroup analyses showed that group TF-CBT was superior to other treatments in studies including children with post-traumatic stress symptoms (PTSS). Patients with post-traumatic stress or psychiatric comorbidities may benefit more from group trauma-focused CBT. |
| Protić et al. | TF-CBT, EMDR, narrative exposure therapy, psychodynamic, Psychoeducation | NA | other interventions or control groups | Moderate evidence for mediation effects of posttraumatic cognitions in CBT. The therapeutic alliance appears to be a promising candidate for future research. |
| Hoogsteder et al. | TF-CBT) and Eye Movement Desensitization Reprocessing (EMDR) | NA | Control group(no treatment &Treatment As Usual) | Trauma-focused cognitive-behavioral therapy (TF-CBT) and Eye Movement Desensitization and Reprocessing (EMDR) had a large and significant overall effect (d = 0.909) on reducing trauma symptoms (High effect) and externalizing behavior problems (medium effect).  |
| Gkintoni et al. | Eye Movement Desensitization and Reprocessing (EMDR), Systemic Therapy, Play Therapy, Exposure Therapy, Relaxation Techniques, and Psychodynamic Psychotherapy.  | tailored intervention & family therapy | Cognitive Behavioral Therapy (CBT), Trauma-Focused CBT (TF-CBT),  | The efficacy of TF-CBT and EMDR interventions is highlighted for their robust outcomes in reducing PTSD symptoms and improving emotional and behavioral family support, which can substantially enhance treatment efficacy and facilitate the child’s recovery. However, treatment must be tailored to the child’s age, developmental level, specific symptoms, and the nature of the trauma. Functioning and addressing comorbid conditions such as anxiety and depression.  |
| Thielemann et al.2 | Cognitive mediators, CBT, TF-CBT, psychoeducation |  (TF-)CBT and educational intervention | Control groups consisted of randomized wait list, treatment as usual (TAU) and active treatment (AT) conditions | TF-CBT is a reliable treatment for pediatric PTSS and secondary symptoms with stable results at 12-month follow-up. |

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| **Table 3 continued** |
| **Summary of Findings from Interventions and Treatment Outcomes**  |
| **Author** | **Standalone Intervention** | **Integrative Intervention** | **Comparative &/or Standard Intervention** | **Results-Treatment Outcomes-Findings** |
| Morison et al. | creative arts intervention or a multi-component intervention | NA | a waitlist control, treatment as usual, or an active control | Creative arts-based interventions reduce trauma symptom scores with a medium effect size and measures of negative mood with a small effect size.  |
| Hoppen et al. | four families of psychological intervention: (a) trauma-focused cognitive–behavioral therapy (TF-CBT, e.g., prolonged exposure, cognitive processing therapy); (b) eye movement desensitization and reprocessing (EMDR); (c) other psychological interventions (e.g., psychoanalytic therapy, spiritual hypnosis-assisted treatment); and (d) multidisciplinary treatments (e.g., intensive multimodal group programs, risk reduction through family therapy, teaching recovery techniques). | NA |  Control groups were divided into passive control conditions (e.g., waiting lists, no treatment) and active control conditions (e.g., treatment as usual, supportive counselling) | Psychotherapies were also more effective than active control conditions in reducing multiple-trauma-related PTSD. The data suggested that psychological interventions are mainly effective in treating both individuals who have suffered a single trauma as well as individuals who have suffered multiple trauma exposures.  |
| Smith et al. | TF-CBT (e.g., prolonged exposure for adolescence; PE-A, CT-PTSD, TF-CBT) | NA |  control group | This meta-analysis found that psychological treatments for child and adolescent PTSD reduced negative trauma-related appraisals, with an overall medium effect size reported. |
| Ahmadi et al. | acceptance and commitment therapy (ACT) and control group | NA | a trauma-focused cognitive behavior therapy (TF-CBT) |  At postintervention, only the ACT and TF-CBT groups had significantly lower levels of PTSS compared to the control group. The findings suggest that ACT may be a more culturally and contextually suitable intervention for this population, offering promising implications for mental health interventions in similar cultural contexts. |
| Rimane et al. |  developmentally adapted cognitive processing therapy (D-CPT)  | NA | control group, a wait-list condition with treatment advice | Overall, higher posttraumatic avoidance was associated with greater baseline AR avoidance in D-CPT.In terms of change in attachment during the trial, a greater reduction of attachment insecurities was associated with a greater decrease in PTSS severity.  |
| Phillips et al. | Trauma-focused Cognitive Behavioral Therapy or Eye Movement Desensitization and Reprocessing | NA | Control group |  found only limited evidence of minor (non-significant) effects favoring TF-CBT/EMDR over control conditions upon social and interpersonal outcomes. |
| Guerra et al. | Trauma-Focused Cognitive Behavioral Therapy (TF-CBT); Interpersonal Psychotherapy (IPT); | NA | treatment as usual, Art therapy-based support (ATBS) | TF-CBT showed significant decreases for PTSD (d = 0.91) and depression (d = 0.77) symptoms, sustained at follow-up, with affect regulation problems also showing a considerable decrease from baseline (d = 0.43). IPT showed substantial reductions in PTSD symptoms (d = 0.64) and affect regulation problems (d = 0.66), both sustained at follow-up. ATBS showed statistically significant decreases for PTSD (d = 0.79) and interpersonal issues (d = 0.65), but only the change in PTSD was sustained at follow-up.  |
| Roberts et al. | trauma-focused intervention  | Integrated cognitive behavioral therapy (ICBT)  | present-focused (alternative psychological intervention), treatment as usual(control group) for SUD only | There was evidence of some benefit for trauma-focused intervention over present-focused intervention for PTSD  |
| Arora et al. | psychological interventions, including cognitive-behavioral therapy (CBT), trauma-focused CBT (TF-CBT), cognitive-behavioral intervention for trauma in schools (CBITS), prolonged exposure (PE), eye movement desensitization and reprocessing (EMDR), and transdiagnostic approaches like the unified protocol for adolescents (UP-A) | Usual care  |   | Findings revealed that multimodal intervention and mind–body skill intervention significantly reduced the PTSD scores with a large effect size when compared to usual care in the earlier and delayed intervention in the latter. Interestingly, both were group interventions. Notably, the transdiagnostic unified protocol intervention and TF-CBT showed similar effect sizes.  |
| Schreyer et al. | TF-CBT  | NA | CONTROL GROUP | This meta-analysis found no differences in measuring treatment effects on PTSS according to DSM-IV and DSM-5-based instruments. Although the changes from DSM-IV to DSM-5 and their comparability were critically discussed, the effect sizes for outcome measures based on the different versions were very similar. TF-CBT is a treatment of first choice for PTSS in children and adolescents, as it is superior in reducing PTSD, depression, and anxiety compared to control conditions. |
| Hoppen et al. | TF-CBTs ,EMDRS, MDTs(Multidisciplinary treatments) | NA | control group  | TF-CBTs were associated with significantly larger reductions in pediatric PTSD than non-trauma-focused interventions in the short, mid, and long term. More long-term data are needed for EMDR, MDTs, and non-trauma-focused interventions. |
| Hultman et al. | trauma-focused cognitive behavioral therapy (TF-CBT)  |   | enhanced treatment as usual (eTAU) | TF-CBT showed modest positive changes for children abused and/or exposed to InterPV.TAU may be as effective as TF-CBT when TAU is enhanced in the study design. |

Table 3 illustrates the reviewed studies encompassing a range of interventions aimed at alleviating trauma-related symptoms in children and adolescents, explicitly addressing PTSD, PTSS, depression, and anxiety, with distinct methodologies and outcomes. Trauma-Focused Cognitive Behavioral Therapy (TF-CBT) emerged as the predominant intervention, analyzed both as a standalone approach (e.g., Thielemann et al., Davis et al., Morroni et al., Kaminer et al.) and in combination with other therapeutic modalities (e.g., Thomas et al. with cultural adaptations; Roberts et al. employing integrated CBT). TF-CBT consistently demonstrated efficacy across diverse clinical settings, effectively mitigating PTSD symptoms alongside associated depression and anxiety, whether administered individually or in group formats, often with follow-up assessments. Conversely, Ole Hultman et al. posited that enhanced Treatment As Usual (eTAU) may rival the effectiveness of TF-CBT for children suffering from abuse and/or exposure to intimate partner violence (IPV). Group TF-CBT (e.g., Davis et al., Xie et al.) has shown notably favorable outcomes, frequently outperforming control conditions in the management of PTSD and related psychiatric comorbidities. Furthermore, interventions such as Acceptance and Commitment Therapy (ACT) (Ahmadi et al.) and Eye Movement Desensitization and Reprocessing (EMDR) (Hoogsteder et al., Gkintoni et al.) were investigated, demonstrating their effectiveness in alleviating symptoms and externalizing behavioral issues. Nonetheless, these therapeutic strategies require contextual specificity and adaptability, tailored to the child's or adolescent's developmental stage and age. A call for more rigorous data is evident to ascertain both short- and long-term effects (Hoppen et al.). In contrast, novel and integrative interventions have provided additional insights into trauma therapy. Studies exploring creative arts interventions (Morison et al.) and transdiagnostic strategies (Arora et al.) reported moderate to significant reductions in trauma symptoms, presenting viable alternatives to TF-CBT and EMDR. Stepped care models (Roberts et al.), individual-focused CBT (Becker et al.), and family interventions (Gkintoni et al.) showed effectiveness in addressing substance use disorders alongside PTSD; however, their efficacy was not universally superior to established evidence-based practices. The findings underscored the critical role of participant characteristics, including symptom severity (de Haan et al.) and cultural adaptability (Ahmadi et al.), in influencing treatment outcomes. While the majority of studies advocated for the superiority of trauma-focused interventions over passive or overactive controls, Hultmann et al. and Ahmadi et al. suggested that enhanced standard care and integrative CBT with ACT may yield outcomes comparable to TF-CBT, particularly for minors exposed to familial violence or culturally specific contexts, such as among Afghan females, as the case may be.

**3.4 Discussion**

Findings from these studies identified trauma-focused CBT as the most effective approach to improving mental health outcomes among children and adolescents experiencing symptoms of adverse experiences. While trauma-focused tends to be more effective, evidence from the RCTs indicates that different adaptations to cognitive behavioral therapy consistently demonstrate significant improvements in reducing post-traumatic stress symptoms (PTSS), anxiety, depression, and other trauma-related outcomes across different groups of children and adolescents. [21], [23], [24] For example, developmentally adapted cognitive processing therapy,[23] an abbreviated eight-session version of TF-CBT, [24] Group-based CBT interventions were found to be equally effective, with notable reductions in depression and anxiety symptoms. [33] These illustrations suggest that adaptations to CBT can significantly reduce the severity of the symptoms (in cases of multiple trauma) and provide cost-effective alternatives to individualized treatments. Furthermore, the RCTs proved that culturally tailored approaches, such as acceptance and commitment therapy (ACT), also showed promise; however, their efficacy depended on the specific contextual and cultural needs of the population.[26]

When contrasted with standard care models, evidence-based interventions like TF-CBT and eye movement desensitization and reprocessing (EMDR) demonstrate superior efficacy, particularly in addressing PTSD and externalizing behaviors, even with multiple trauma exposures.[21], [29], [34] Nevertheless, studies suggest that enhanced treatment-as-usual (TAU) protocols, incorporating supplementary therapeutic modalities, can yield outcomes comparable to those of established interventions like TF-CBT, especially among children exposed to familial violence. [22] Furthermore, integrative interventions that combined education, cultural considerations, and family-based approaches demonstrated significant improvements in emotional regulation, interpersonal functioning, and overall resilience. [16], [17], [30], [35] The evidence consistently indicates that tailored interventions, which consider developmental stages and the severity of symptoms, are more effective than generalized treatments. This proven intervention underlines the necessity for personalized approaches to optimize treatment outcomes.36

Despite the promising results, significant gaps persist regarding the longitudinal efficacy and scalability of non-CBT interventions. Creative arts-based therapies and multimodal approaches have demonstrated moderate effects; however, further investigation is necessary to validate their effectiveness in pediatric populations. [18] Additionally, the influence of caregiver engagement, cultural factors, and systemic barriers in low- and middle-income contexts warrants further scrutiny. Overall, this review emphasizes the critical importance of CBT and other evidence-based interventions in navigating systemic challenges faced by children and adolescents with ACEs, advocating for culturally sensitive, personalized, and scalable strategies to ensure equitable access and sustained mental health improvements into adulthood.

**3.5 Limitation**

This study acknowledges several limitations. Notably, some pertinent research was excluded due to its absence in the databases queried or a lack of public accessibility. The rapid increase in publications concerning posttraumatic stress disorder in early developmental stages may have also led to the omission of relevant recent studies because of the predetermined search period cutoff. Additionally, this review prioritized synthesizing the current evidence rather than conducting a formal quality assessment of the included studies, which aligns with the standard methodology for scoping reviews. These factors must be considered when interpreting the findings and conclusions drawn from this research.

4. Conclusion

This research underscores trauma-focused cognitive behavioral therapy (TF-CBT) as the premier intervention for ameliorating mental health outcomes in children and adolescents exhibiting trauma-related symptoms. Randomized controlled trials indicate that numerous adaptations of CBT, alongside integrative models that incorporate psychoeducation, cultural factors, and family-centric approaches, effectively mitigate post-traumatic stress symptoms while fostering resilience. These findings highlight the adaptability and effectiveness of CBT-based interventions in confronting the multifaceted trauma-related issues faced by children and adolescents.

**DISCLAIMER (ARTIFICIAL INTELLIGENCE)**

The author (s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of this manuscript.

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