**Review Article** 



# Enhancing the mental health of children, students, and adolescents with trauma and PTSD through TF-CBT

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Received: 28 October 2023 Revised: 10 March 2024 Accepted: 10 March 2024 e-Published: 11 March 2024

#### Abstract

**Background:** Sub-Saharan African (SSA) countries have witnessed tremendous and devastating traumatic events that adversely affect all individuals, regardless of age. Nevertheless, little is known about the use of psychological therapy in the treatment of traumatised individuals suffering from post-traumatic stress disorder (PTSD).

**Objectives:** This study examined the efficacy of trauma-focused cognitive behavioural therapy (TF-CBT) in enhancing the mental health of children and adolescents with trauma and PTSD in SSA countries.

**Methods:** This study employed a scoping review lens in strict adherence to Joanna Briggs Institute (JBI) guidelines. An extensive study was conducted in the Google Scholar, Scopus, PubMed, and PsyInfo databases. The search results showed that 284 related articles were retrieved from these databases based on formulated search terms. Seventy-seven articles were screened. At the end of the screening, 16 articles were included for review.

**Results:** This review revealed that TF-CBT enhanced children's mental health through a substantial reduction in symptoms of trauma and PTSD. Furthermore, TF-CBT enhanced students' mental health through a significant reduction of anxiety and PTSD symptoms. Furthermore, TF-CBT significantly improved adolescents' mental health by significantly reducing their symptoms of PTSD, depression, stress, and anxiety, moderated by a history of sexual abuse and primary caregiver involvement. In light of the findings of this study, more studies are needed in some sub-Saharan nations that are vulnerable to traumatic events. In addition, since TF-CBT is proven efficient in enhancing the mental health of individuals irrespective of age in SSA, the World Health Organisation should recommend it for treating individuals with trauma and PTSD.

**Conclusion**: TF-CBT is an effective psychological therapy that improves the mental health of children, students, and adolescents living in the SSA. It has been demonstrated that the use of TF-CBT enhances the mental health of individuals, regardless of their age. However, researchers at the SSA have not fully used this promising psychological therapy to improve the mental health of children and adolescents with trauma and PTSD.

Keywords: Children trauma, Students PTSD, Adolescents PTSD, Trauma-Focused Cognitive Behavioural Therapy, Mental Health.

## Introduction

Trauma refers to a severe, long-term adverse event that threatens an individual's physical and mental health. Such events include accidents, witnessing violence, experiencing a life-threatening illness, sexual assault, or interpersonal violence.<sup>[1]</sup> Post-traumatic stress disorder (PTSD) is a mental health condition resulting from exposure to traumatic events.<sup>[2]</sup> As a debilitating psychiatric disorder, PTSD can lead to a number of detrimental mental health consequences, as well as increase the risk of comorbidity with other mental disorders.<sup>[3]</sup> Individuals' traumatic events may make it difficult to sleep, engage in daily activities, attend events, and spend leisure time with friends. The National Center for PTSD Individuals' traumatic events may make it difficult to sleep, engage in daily activities, attend events, and spend leisure time with friends. The National Centre for PTSD emphasises that if these symptoms last beyond a month or more, the individual has developed PTSD.<sup>[2]</sup> Research has shown that trauma and PTSD affect

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individuals irrespective of age.

However, the number of children and adolescents suffering from PTSD after witnessing traumatic events remains unknown.<sup>[4]</sup> A report from the National Center for PTSD revealed that trauma incidence among children revolves around 15–43% of girls and 14–43% of boys experiencing a traumatic event. Among these children who experienced trauma, 3% to 15% of girls and 1% to 6% of boys suffer from PTSD.<sup>[2]</sup> In sub-Saharan Africa, a considerable number of children become exposed to trauma, and most of the children develop PTSD at a later age.<sup>[5]</sup> The center revealed that physical abuse in different aspects (i.e., neglect 65%, abuse in physical form 18%, sexual abuse 10%, and psychiatric abuse 7%) is the most significant contributor to children's trauma and the possibility of developing PTSD.

Among adolescents in South Africa, a study revealed that 6.0% of the youth had PTSD,<sup>[6]</sup> which is less than what was reported in previous studies, in which 22.2% of the sampled participants had PTSD.<sup>[7]</sup> In the school context, identifying the proportion of students with PTSD has proven difficult because the number of students exposed to traumatic events fluctuates based on the sample studied.<sup>[1]</sup> However, research evidence has indicated that the pervasive nature of students encountering traumatic event exposure within the school-aged population was 61.8%,<sup>[8]</sup> which is consistent with child and adolescent reports.<sup>[9]</sup>

It has been estimated that approximately two-thirds of students have been exposed to one or more traumatic events at the age of 17.<sup>[1]</sup> The most common types of trauma that adversely affect the learning process of students are more individualistic, like assaults, domestic violence, poor performance, and accidents. Other traumatic phenomena that affect both students and schools are school shootings, natural disasters, and terrorist attacks, among others.<sup>[10]</sup> Due to these traumatic events, some students may have higher chances of developing PTSD than others. This is especially true for those who have experienced multiple traumatic events, as well as those who have experienced interpersonal trauma.<sup>[11]</sup>

Research evidence has shown that students who have been exposed to traumatic events have a high risk of experiencing academic, social, and emotional problems.<sup>[10,12]</sup> Students displaying high PTSD symptoms are associated with academic burnout, existential anxiety, and academic fear.<sup>[13]</sup> Students can be psychologically traumatized as a result of simple exposure to one-time events like a natural disaster, pandemic, or horrible accident. Studies have shown that students affected by PTSD exhibit behaviours such as anger, emotions in the classroom like frustration, stress, and irritability, as well as associated aggressive actions like aggressive posturing, verbal fights, and demonstrations of a tendency towards using violence to resolve interpersonal problems, which are the psychological feelings that impact students' learning behaviour.<sup>[14]</sup> Students in their penultimate and final years had more PTSD symptoms than their peers during the COVID-19 pandemic.<sup>[15]</sup> This could be associated with the fact that they were worried about their graduating time; hence, uncertainty with respect to the reopening of school, graduating, rumoured adverse effects of COVID-19 vaccines among vaccinated individuals, finding a job, or enrolling in higher education. Therefore, to reduce or eliminate the adverse effects of PTSD on students' learning activities, TF-CBT can be used.

Trauma-focused cognitive-behavioural therapy (TF-CBT) is a known psychological treatment that is effective in the treatment of maltreated children and adults.<sup>[16]</sup> TF-CBT is a therapeutic approach that incorporates and combines different elements that are sensitive to trauma.<sup>[17]</sup> It has been proposed that TF-CBT is a shortterm psychological treatment that incorporates traumasensitive intervention with cognitive behavioural strategies.<sup>[18]</sup> Psychoeducation and individualizing relationship skills are key parts of TF-CBT, along with a three-phase treatment program (stabilisation, trauma narration and processing, integration, and consolidation). The acronym "practice" represents psychoeducation and parenting skills [P], relaxation [R], affective expression and regulation [A], cognitive coping [C], trauma narrative development and processing [T], in vivo gradual exposure [I], conjoint parent-child sessions [C], enhancing safety and future development [E].<sup>[17, 18]</sup> A total of eight sessions of TF-CBT must be completed in 45 minutes to cover all the components.<sup>[20]</sup>

Empirical evidence supports the usefulness of TF-CBT for treating children and adolescents after they suffer from different kinds of abusive treatment.<sup>[19,20]</sup> The National Institute for Health and Care Excellence recommends TF-CBT as a first-line therapy to treat PTSD.<sup>[22]</sup> Some empirical evidence has shown that TF-CBT alleviates symptoms of PTSD and depression, which are considered mild to moderate stages.<sup>[18]</sup> The positive impact of TF-CBT is often attributed to parents receiving personal time from therapists that administer TF-CBT and discovering that those skills are relevant to their own symptoms.<sup>[23]</sup>

Since TF-CBT has been proven to significantly reduce the adverse effects of PTSD in individuals, there is a need to

assess the extent of utilization of this therapeutic strategy for treating students with PTSD in SSA. As part of this study, we have been aware of the existing literature reviews that have been published in this context, with a special emphasis on the global community. A systematic review of TF-CBT for preschool-aged children has been carried out; however, the study examined exclusively preschool-aged children in a global context. Moreover, a study has been conducted on the effectiveness of TF-CBT in reducing the symptoms of trauma in traumatized refugee children,<sup>[25]</sup> but it is strictly concentrated on refugee children. Systematic reviews and meta-analyses of TF-CBT for children and youth have been conducted<sup>[26]</sup> but they adopted different methods and focused on the global community. As well, a systematic literature review of TF-CBT for children and youth in low and middle-income countries has been conducted<sup>[27]</sup> but focused on the global community. Neither of these previous studies focused on SSA with a broad scope that covered children, students, and adolescents, or utilized a scoping review approach.

Therefore, the study employed a scoping review approach to assess the scope and depth of literature concerning the use of TF-CBT on children, students, and adolescents with trauma and PTSD in SSA. This study is extremely significant because of the frequency of traumatic incidents in SSA, some of which have an adverse impact on students' behaviour towards learning. The outcome of this study would be significant for psychologists, public health administrators, therapists, the World Health Organization (WHO), and school administration. It is anticipated that the findings of this study will reveal a gap in the literature regarding the extent and geographical scope of utilizing TF-CBT in treating children and adults with trauma and PTSD in SSA.

## Objectives

In light of this, the main objective of this study was to determine whether TF-CBT improves the mental health of children, students, and adolescents with PTSD in SSA.

#### Methods

We utilized a scoping review method to evaluate empirical quantitative, qualitative, and mixed-methods studies on the efficacy of TF-CBT in enhancing the mental health of children and adolescents suffering from trauma and PTSD in SSA. In this review, we adhered to PRISMA-SCR (Preferred Reporting Item for Systematic Review Extension for Scoping Review)<sup>[28]</sup> to outline the contents and the concepts, formulate a search strategy, define inclusion criteria, determine the kind of data extracted, and display the data in a flow diagram.

## Search Strategy

Based on PRSIMA guidelines, a time frame, database, and search terms were used to conduct the research.

- **Time Frame:** The date limitation was not used for this scoping review, but the end date was April 12, 2023, to allow authors sufficient time to review extensive literature.
- Database: This study restricted its search to the following databases and electronic journal collections: The search was limited to English-language articles on PubMed, Google Scholar, PsyInfo, and Scopus. This search was restricted to these databases because of their relevance to the topic under investigation. PubMed and PsycInfo were chosen for being relevant in psychology and public health, whereas Scopus and Google Scholar were chosen for their multidisciplinary, broad database, which covers all keyword databases.
- Search Terms: The search terms used in this study were formulated with the assistance of two digital librarians with expertise in public health and psychology. Topics: mental health (mental well-being, emotional health, psychological health, psychological health, mental wellbeing, mental balance, sound mental faculties, mental state, and mental stability), enhancing (improving, promoting, elevating, advancing, fostering), and SSA (West Africa, central Africa, East Africa, and South Africa). Some of the search terms we formulated were not included because they did not reflect the contextual meaning of the phrases "traumafocus" (trauma-target, trauma concern) and mental health (soundness of mind, right-mindedness). Furthermore, since the content of this scoping review is broad, the inclusion of more search terms that are encompassing could result in the addition of research articles that would not necessarily have to do with the mental health issues of individuals with trauma and PTSD.

## Inclusion and exclusion criteria

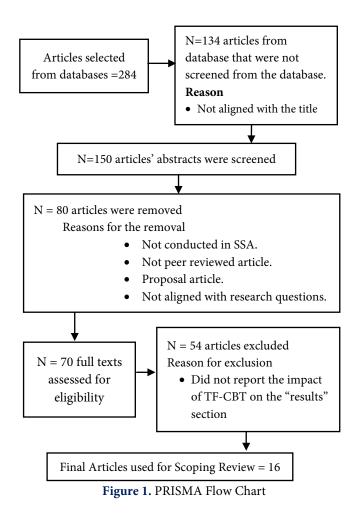
Research articles included in this review were published in English; hence, articles in other languages were excluded. Research articles that are empirical in nature were reviewed. Therefore, articles that were not peer reviewed, normal reviews, grey literature, and theoretical and conceptual articles were excluded. As this review did not restrict itself to any type of research design, it included all types (qualitative, quantitative, and mixed method).

## Data extraction and coding

We conducted a preliminary search in the selected

databases using our search terms. A date restriction was not imposed, but the search was limited to articles published in the English language and peer-reviewed empirical studies of both qualitative, quantitative, and mixed methods. In the selected database, we used our formulated search terms in various iterations, with Google Scholar producing 173 initial hits, PsyInfo producing 79 initial hits, PubMed producing 19 initial hits, and Scopus generating 13 initial hits. Zotero software was used to store, remove duplicates, and code the data. After duplicate removal, the total number of articles included for article title screening was 284; the details of all the outstanding articles' title screening are depicted in the PRISMA flow chart in Figure 1.

Screening of the titles for inclusion was done by Amos and Veronica. The criteria for inclusion and exclusion of articles were used for article selection. A total of sixteen articles were included in the review (N=70). At this data extraction stage, articles that met inclusion criteria based on title were included. In cases where articles do not have an abstract, the decision on inclusion or exclusion was made after reading the whole article.



Additionally, two reviewers read and screened all the selected articles. Articles were selected at this stage based on their alignment with the research questions that guided the study. Once they aligned with any of the research questions, they were coded and categorized (remaining = 16). The two reviewers were actively involved in the coding process.

Data extracted from the final selected articles include authors' surnames, year of publication, method, sample size, location, and results. We did not critically analyze the method of this study since this review adopted a scoping review approach and methodological analysis is not part of the review objectives. This scoping review aims to provide an overview of the contents of the selected studies regarding enhancing the mental health of children and adolescents with trauma and PTSD in SSA. Depending on the topic and research questions that guided the study, the data were coded based on the key findings. All the reviewers contributed to the coding of the data based on key findings and categorizing them into three research questions that guided the study.

## Results

Articles address the effect of TF-CBT on children and adolescents with trauma and PTSD in SSA is demonstrated in Table-1.

## Characteristics of included articles

In Table 2, below, the oldest article reviewed was published in 2013. As a result, no articles that meet the criteria for inclusion have been published prior to that date. The number of articles published on improving the mental health of children and adolescents using PTSD has increased from 2021 upward. This indicates that researchers have become interested in this area. The moving average line graph indicates that there was a sharp decline in the number of articles published from 2013 to 2019. However, from 2021 to 2023, there was a sharp increase in the number of articles that were published, as shown in the moving average line graph in Figure 2.

In table 2, the data showed that 88% of the included articles were quantitative,<sup>[16, 27-29, 30-38, 40]</sup> 6.25% were qualitative,<sup>[41]</sup> and 6.25% were mixed methods.<sup>[43]</sup> Of the 16-articles selected for this coping review, 56.25% examined the effectiveness of TF-CBT on children's mental health<sup>[27,28,29,16,35,36,27,40,41]</sup> 12.5% investigated the effectiveness of TF-CBT on students,<sup>[32,34]</sup> and 31.25% examined articles focusing on adolescents.<sup>[31, 33,34,37, 38]</sup>

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A (1				n children and adolescents with trauma and PTSD in SSA
Author	Method	Sample	Country	Results
[29]	Randomized	126	Zambia	The TF-CBT adapted resulted in a small improvement in
[20]	control Trial			functional impairment and reduced trauma symptoms.
[30]	Randomized	640	Tanzania and	In Tanzania and Kenya, TF-CBT was more effective in reducing
	control Trial		Kenya	posttraumatic stress than usual care.
[31]	Randomized	610	Zambia	Children that were treated with TF-CBT had a significant
	Control Trial			reduction in HIV risk behaviour, mental health problems (PTSD
				externalizing, and internalizing).
[17]	Pre-test-Post	5	Nigeria	TF-CBT has shown to be effective in enhancing the mental health
	Control Group			of children who have suffered from sexual abuse, physical abuse
				or traumas.
[32]	Randomized	74	Nigeria	TF-CBT significantly reduced the PTSD and depression arising
	Control trial			from COVID-19 events. And there was an overall general
				improvement in the mental health of the students at the end of the
				intervention.
[33]	Randomized	75	South Africa	Participants exposed to TF-CBT had an increased reduction in
	Control Trial			PTSD symptoms severity as well as a greater reduction in
				depression symptoms among youths.
[34]	Quasi-	254	Nigeria	A study conducted among secondary school students found that
	experimental		U	TF-CBT reduced kidnapping anxiety.
	design			
[35]	Randomized	52	Congo	The results showed that TF-CBT was effective in reducing
	Trial		8	psychological distress in war-affected youth. When compared
				with TF-CBT, child friendly spaces were more effective at fellow-
				up.
[36]	Randomized	52	Congo	In war-affected girls who were subjected to sexual violence, TF-
	Controlled		8-	CBT was successful at decreasing PTSD symptoms and
	Trial			psychosocial disorders.
[37]	Experimental	64	Tanzania	The results indicated that TF-CBT was effective in treating
	design	01	1 unzunnu	maladaptive grief and symptoms related to posttraumatic stress in
	design			children.
[38]	Experimental	1	-East Africa	TF-CBT was found effecting in treating a PTSD patient from East
	Experimental	1	-Last Allica	Africa.
[39]	Randomized	257	Zambia	Treatment effectiveness of TF-CBT was moderated by the
	Controlled	237	Zailibia	
	Controlled			presence of a history of sexual abuse, primary caretaker. However,
				there were no significant moderators associated with gender, age
[40]	D 1 1 1	50	0	trauma type, school status, or caregiver involvement.
[40]	Randomized	50	Congo	TF-CBT significantly reduced the symptoms of PTSD,
				psychosocial distress, depression, and anxiety-like symptoms
[41]				among former child soldiers and other war-affected individuals.
[41]	Qualitative	35	Zambia	TF-CBT was found positive by counsellors due to its structure and
				flexibility as well as a positive change in clients, and cultural
				adaptation around the activities. Challenges observed include
				participation of clients, availability of location, financial support
				and community inability to understand the therapy.
[42]	experimental	58	Zambia	The findings showed that there was a significant reduction in
				trauma and shame symptoms. Therefore, TF-CBT was feasible in
				Zambia.
[43]	Mixed method	640	Tanzania and	The convergence of qualitative and quantitative data suggests that
			Kenya	TF-CBT is highly accepted from guardian and child perspectives.

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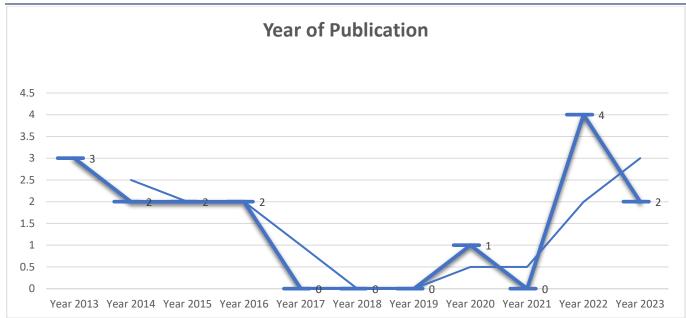


Figure 2. Distribution of Years of Publication

Table 2. Features of the included studie				
Country	Percentage			
Quantitative	88%			
Qualitative	6.25%			
Mixed Method	6.25%			
Articles focusing on Children	56.25%			
Articles focusing on Students	12.5%			
Articles focusing on Adolescent	31.25%			
Congo	18.75%			
East Africa	6.25%			
Nigeria	18.75%			
South Africa	6.25%			
Tanzania	6.25%			
Tanzania & Kenya	12.5%			
Zambia	31.25%			

Furthermore, Table 2 reveals the country distribution of the selected articles for this review. The data showed that 18.75% of the articles were conducted in the Congo <sup>[33, 34, 38],</sup> 6.25% of the articles were carried out in East Africa <sup>[38]</sup>, 18.75% of the articles selected were conducted in Nigeria <sup>[16, 30, 32],</sup> 6.25% was done in South Africa <sup>[33]</sup>, 12.5% of the articles were conducted in Tanzania and Kenya <sup>[28, 41],</sup> and 31.25 were done in Zambia. <sup>[27, 29, 37, 39, 40]</sup>

## Main findings from the Literature

This review found that TF-CBT can reduce trauma, stress-related symptoms, HIV risk behaviour, PTSD symptoms, maladaptive grief, and shame symptoms among children, based on the three research questions that guided the review. Furthermore, TF-CBT enhances overall mental health in children, is more effective in comparison to usual care for children with trauma and PTSD, and is more feasible in SSA.<sup>[27, 28, 29, 16, 35, 36 27, 40, 41]</sup>

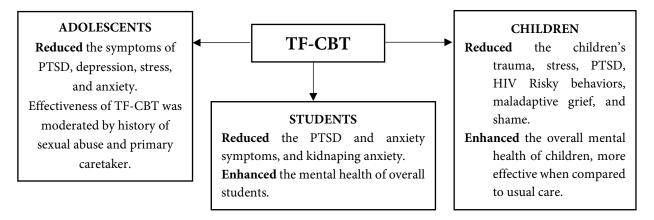


Figure 3. Main Findings of the study

In terms of improving students' mental health, TF-CBT was found to be impactful in reducing PTSD symptoms, depression emanating from COVID-19 events, and kidnapping anxiety among secondary school students. to Therefore, TF-CBT contributed an overall improvement in the mental health of students at the end of the intervention.<sup>[30,32]</sup> For adolescents, TF-CBT has been demonstrated to be efficient in treating symptoms of PTSD and depression, psychological distress, and anxiety. Additionally, TF-CBT effectiveness was found to be moderated by prior experience with sexual abuse and the primary caretaker, while gender, school status were not significant moderators among adolescents in SSA. [31,33,34,37,38]

## Discussion

In this review, we examine the efficacy of TF-CBT in enhancing the mental health of children and adolescents with trauma and PTSD in SSA. The discussion of the key findings is organized based on research questions formulated to guide the study. The study assessed the extent of TF-CBT in improving PTSD and trauma-related mental health in children. It also examined the impact of TF-CBT on students and adolescents with trauma and PTSD.

This study revealed that TF-CBT enhanced the mental health of children by reducing the children's symptoms of trauma, stress, PTSD, HIV risky behaviour, maladaptive grief, and shame. In addition, TF-CBT was more effective than usual care in treating children with trauma and PTSD. This means that TF-CBT is an effective psychological therapeutic intervention technique that improves psychological well-being in children, particularly those who have been traumatized and have PTSD symptoms. Despite TF-CBT's efficacy, it has not been widely used in SSA in the treatment of children with trauma and PTSD. This is because, to date, only nine studies have reported the feasibility of TF-CBT in managing children's trauma and PTSD throughout SSA. Evidence of traumatic events abounds in SSA, including but not limited to flooding, kidnapping children, war, and pandemics. A study carried out by Ng et al.,<sup>[44]</sup> revealed that trauma and PTSD symptoms are common in SSA, mostly in regions where armed conflict occurs frequently. However, the findings of this study confirmed the findings of a meta-analysis indicating that all outcomes were significantly improved with TF-CBT from pre-treatment to 12-month follow-up, and the result was more effective when compared with active and usual treatments.<sup>[20]</sup> These findings corroborate the results of a systematic review

conducted by Conway<sup>[45]</sup> who found that TF-CBT is an efficacious therapeutic intervention for lessening PTSD symptoms in children and adolescents.

Additionally, this study found that TF-CBT improved mental health in students by decreasing symptoms of PTSD, anxiety, and kidnapping anxiety. This indicates that TF-CBT is an efficacious and impactful therapeutic intervention in the management of symptoms of PTSD and anxiety among students; hence, it enhances their mental health. Notwithstanding the significant role of TF-CBT in alleviating mental health problems and the global application of TF-CBT in promoting mental health, its application in treating students with mental health problems in SSA is extremely low. Of all the sixteen studies selected for this review, only two were conducted in school settings. This portrays a low level of application of TF-CBT interventions in enhancing the mental health of students exposed to traumatic events such as kidnapping, terrorism, flooding, communal conflicts, and sexual abuse. This finding conforms to the findings of a study conducted by Spiegel et al.,<sup>[46]</sup> whose findings found that TF-CBT substantially reduced the severity of symptoms associated with PTSD, and its effectiveness varied by age. This implies that individuals' age has a significant impact on the effects of TF-CBT. This study's findings align closely with those published by Herrenkohl et al.,[47] which revealed that trauma informed school-based approaches are effective both in individual and school-based approaches. This study also emphasized that classroom-based and schoolwide programs could be better with respect to integration, access to services, and sustainability.

Furthermore, this study found that TF-CBT reduced symptoms of PTSD, depression, anxiety, and stress among adolescents. Additionally, the effectiveness of TF-CBT was influenced in part by the previous experience of sexual abuse as well as by the primary caretaker. This shows that TF-CBT has a positive impact on the adult population, primarily in the reduction of PTSD, depression, and anxiety symptoms. This has proven that TF-CBT is a therapeutic intervention that significantly enhances the mental health of individuals of all ages. Furthermore, treating adolescents with PTSD and depression is moderated by other variables such as a history of abuse and the primary caretaker. This means that the extent to which TF-CBT can transmit effects on adolescents is a function of these moderating factors. If these moderating factors exhibit a positive relationship with TF-CBT, the effect size would be high on the individual, whereas the opposite is the case if the relationship is inverse. This finding aligns with a study conducted recently by Brown, Cohen, and Mannarino et al.,<sup>[48]</sup> which found that the effectiveness of TF-CBT outcomes was associated with caregiver impact. Similarly, the findings of this study aligned with findings from a case study that revealed that TF-CBT is designed to address the needs of individuals with a background of sex trafficking and labour exploitation, and caregiver support is indispensable to addressing behavioural problems.<sup>[49]</sup> Moreover, this study confirmed the report of an intervention study that revealed that TF-CBT was safe, tolerable, acceptable, and helpful in enhancing youth mental health.<sup>[50]</sup>

This review has implications and recommendations: First, this study revealed that TF-CBT significantly lessened children's trauma, stress, PTSD, HIV risky behaviour, maladaptive grief, and shame, as well as enhanced their overall mental health. This study reveals that TF-CBT improves children's mental health by significantly reducing symptoms of trauma and PTSD. Therefore, TF-CBT is an efficacious psychological therapy suitable for treating children exposed to traumatic events. Henceforth, to promote children's mental health in SSA, TF-CBT should be adopted in treating vulnerable children exposed to traumatic events such as terrorism, kidnapping, flooding, and sexual abuse, among others.

Second, this study found that TF-CBT reduced students' symptoms of PTSD, anxiety, and kidnapping panic, as well as enhanced students' mental health in general. This finding implies that TF-CBT has a positive impact on treating students' traumatizing experiences and associated PTSD in SSA. Therefore, to reduce PTSD symptoms among students exposed to traumatic events in SSA, CBT should be widely used because its contents are proven to significantly boost mental health among students in SSA. Therefore, the World Health Organization and the United Nations Ministry of Health should adopt TF-CBT to enhance the mental health of students exposed to traumatic events.

Third, among the adolescent population exposed to PTSD, this study revealed that TF-CBT reduced symptoms related to PTSD, depression, stress, and anxiety. Moreover, the efficacy of the TF-CBT treatment was moderated by a history of sexual abuse and the primary caretaker. This implies that TF-CBT is a significant psychological intervention that promotes the mental health of adolescents who have accumulated PTSD due to exposure to several traumatic events in SSA. This finding also implies that factors such as history of sexual abuse and primary caretaker should be taken into consideration when administering TF-CBT to promote the mental health of adolescents who are victims of traumatic events in SSA.

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This study is the first of its kind to utilize a scoping review approach to establish the scope of empirical evidence on enhancing the mental health of children and adolescents with trauma and PTSD in SSA. This study captured the population of children, students, and adolescents with trauma and PTSD. In addition, this review included both qualitative and quantitative empirical evidence to broaden the scope of the study. However, this study has geographical limitations because it only included studies that were conducted in SSA. In addition, this study is limited to studies written in English, which implies that other studies conducted in other languages were not considered. In addition, since this study adhered to the JBI guidelines, the methodological quality of the reviewed articles was not examined. Finally, the cost associated with administering TF-CBT was not investigated. In future reviews, it is recommended that the scope be broadened by including articles written in foreign languages. As well, future reviews should adopt a systematic review approach to examine the methodological content of the articles. The cost of implementing TF-CBT with children, students, and adults should also be considered in subsequent studies.

## Conclusions

The findings of this study show that TF-CBT enhanced the mental health of children, students, and adolescents with trauma and PTSD in SSA. Hence, TF-CBT is effective at enhancing individuals' mental health, irrespective of age. However, research on improving the mental health of children and adolescents with trauma and PTSD using TF-CBT has been inconsistent in the SSA. Despite the effectiveness of TF-CBT in improving children's and adolescents' trauma and PTSD mental health, there was a sharp decline in its utilization from 2017 to 2021. This contributed to the lack of empirical evidence on TF-CBT's effectiveness in the treatment of individuals with mental health problems. In addition, there is an unequal spread of empirical literature across the SSA countries because they are dominated by the country of Zambia; therefore, more research should be conducted in other countries because of the frequency of traumatic events in some of these countries.

## Acknowledgment

The authors thank Dr. Chiedu Eseadi for suggesting on-line databases for this review.

#### **Competing interests**

The authors declare that they have no competing interests.

Abbreviations

Coronavirus disease 2019: COVID-19;

Post-traumatic Stress Disorder: PTSD;

Cognitive Behavioural Therapy: CBT;

Trauma-Focused Behavioural CBT: TF-CBT;

Sub Saharan Africa: SSA;

Joanna Briggs Institute: JBI;

Preferred Reporting Item for Systematic Review Extension for Scoping Review: PRISMA-SCR.

## Authors' contributions

All the authors contributed in conceptualization, selection of studies and reading the manuscript. All authors read and approved the final manuscript. All authors take responsibility for the integrity of the data and the accuracy of the data analysis.

#### Funding

None.

## Role of the funding source

None.

#### Availability of data and materials

The data used in this study are available from the corresponding author on request.

#### Ethics approval and consent to participate

The study was conducted in accordance with the Declaration of Helsinki. This review was registered in OSF with registration link.osf.io/9bdsv

## **Consent for publication**

By submitting this document, the authors declare their consent for the final accepted version of the manuscript to be considered for publication.

#### References

- Perfect MM, Turley MR, Carlson JS, Yohanna J, Saint Gilles MP. School-Related Outcomes of Traumatic Event Exposure and Traumatic Stress Symptoms in Students: A Systematic Review of Research from 1990 to 2015. School Ment Health 2016; 8: 7-43. doi:10.1007/s12310-016-9175-2
- 2. National Center for PTSD. Understanding PTSD and Aging. 2023; : 1-16.
- Li W, Cheng P, Liu Z, Ma C, Liu B, Zheng W, et al. Posttraumatic stress disorder and traumatic events in China: a nationally representative cross-sectional epidemiological study. Psychiatry Res 2023; 326: 115282. doi:10.1016/j.psychres.2023.115282 PMid:37290364
- Alisic E, Zalta AK, Van Wesel F, Larsen SE, Hafstad GS, Hassanpour K, et al. Rates of post-traumatic stress disorder in trauma-exposed children and adolescents: meta-analysis. Br J Psychiatry 2014; 204: 335-340. doi:10.1192/bjp.bp.113.131227 PMid:24785767

- Miedema SS, Stamatakis C, Tracy A, Hegle J, Kamagate MF, McOwen J, et al. Patterns of adverse childhood experiences and their associations with mental distress, substance use and sexual risk behaviors in Sub-Saharan Africa. Child Abuse Negl 2023; : 106494. doi:10.1016/j.chiabu.2023.106494 PMid:37806930
- Swain KD, Pillay BJ, Kliewer W. Traumatic stress and psychological functioning in a South African adolescent community sample. South Afr J Psychiatry 2017; 23: 1-6. doi:10.4102/sajpsychiatry.v23i0.1008 PMid:30263182 PMCid:PMC6138196
- Seedat S, Nyamai C, Njenga F, Vythilingum B, Stein DJ. Trauma exposure and post-traumatic stress symptoms in urban African schools: Survey in Cape Town and Nairobi. Br J Psychiatry 2004; 184: 169-175. doi:10.1192/bjp.184.2.169 PMid:14754831
- McLean CP, Rosenbach SB, Capaldi S, Foa EB. Social and academic functioning in adolescents with child sexual abuserelated PTSD. Child Abuse Negl 2013; 37: 675-678. doi:10.1016/j.chiabu.2013.03.010 PMid:23623621 PMCid:PMC3740087
- Finkelhor D, Shattuck A, Turner HA, Hamby SL. Trends in Children's Exposure to Violence, 2003 to 2011. JAMA Pediatr 2014; 168: 540-546. doi:10.1001/jamapediatrics.2013.5296 PMid:24781431
- Kataoka S, Langley A, Wong M, Baweja S, Stein B. Responding to Students with PTSD in Schools. Child Adolesc Psychiatr Clin N Am 2012; 21: 119-x. doi:10.1016/j.chc.2011.08.009 PMid:22137816 PMCid:PMC3287974
- Baghi I, Mousavi M, Malekshahi A, Mobayen M. Evaluation of the diagnostic value of FAST in patients with multiple trauma referring to a trauma center in northern Iran. Novel Clin Med 2022;1(3):135-42. doi: 10.22034/ncm.2022.336374.1033
- Wendel EL. Assessing teacher attitudes related to traumainformed care in three urban high schools. 2018. doi:10.26153/tsw/1068
- Tomaszek K, Muchacka-Cymerman A. Student Burnout and PTSD Symptoms: The Role of Existential Anxiety and Academic Fears on Students during the COVID 19 Pandemic. Depress Res Treat 2022; 2022: e6979310. doi:10.1155/2022/6979310 PMid:35096425 PMCid:PMC8796705
- West SD, Day AG, Somers CL, Baroni BA. Student perspectives on how trauma experiences manifest in the classroom: Engaging court-involved youth in the development of a trauma-informed teaching curriculum. Child Youth Serv Rev 2014; 38: 58-65. doi:10.1016/j.childyouth.2014.01.013
- Tang W, Hu T, Hu B, Jin C, Wang G, Xie C, Chen S, Xu J. Prevalence and correlates of PTSD and depressive symptoms one month after the outbreak of the COVID-19 epidemic in a sample of home-quarantined Chinese university students. J Affect Disord 2020; 274: 1-7. doi:10.1016/j.jad.2020.05.009 PMid:32405111 PMCid:PMC7217769
- Allen B, Johnson JC. Utilization and Implementation of Trauma-Focused Cognitive-Behavioral Therapy for the Treatment of Maltreated Children. Child Maltreat 2012; 17: 80-85. doi:10.1177/1077559511418220 PMid:21875905
- 17. Olowe NE, Kehinde-Dada OV, Adeolu T. Trauma-Focused Cognitive Behavioral Therapy: An Effective Treatment Approach for Victimized Girl-Child in an Era of Global Turbulence. International Conference on Education, Science and

Technology (ICEST 2022). ICEST 2022 Conference Proceedings Trauma-Focused-Cognitive-Behavioral-Therapy-An-Effective-Treatment-Approach-for-Victimized-Girl-Child-in-an-Era-of-Global-Turbulence.pdf (researchgate.net)

- Cohen JA, Mannarino AP. Trauma-focused Cognitive Behavior Therapy for Traumatized Children and Families. Child Adolesc Psychiatr Clin 2015; 24: 557-570. doi:10.1016/j.chc.2015.02.005 PMid:26092739 PMCid:PMC4476061
- Hanson RF, Jobe-Shields L. Trauma-focused cognitivebehavioral therapy for children and adolescents. In: APA handbook of trauma psychology: Trauma practice, Vol. 2. Washington, DC, US: American Psychological Association, 2017: 389-410. doi:10.1037/0000020-018
- Thielemann JFB, Kasparik B, König J, Unterhitzenberger J, Rosner R. Stability of Treatment Effects and Caregiver-Reported Outcomes: A meta-Analysis of Trauma-Focused Cognitive Behavioral Therapy for Children and Adolescents. Child Maltreat 2023; 10775595231167383. doi:10.1177/10775595231167383 PMid:36959760
- Bennett RS, Denne M, McGuire R, Hiller RM. A Systematic Review of Controlled-Trials for PTSD in Maltreated Children and Adolescents. Child Maltreat 2021; 26: 325-343. doi:10.1177/1077559520961176 PMid:33016112
- 22. Bormann JE, Thorp SR, Smith E, Glickman M, Beck D, Plumb D, et al. Individual Treatment of Posttraumatic Stress Disorder Using Mantram Repetition: A Randomized Clinical Trial. Am J Psychiatry 2018; 175: 979-988. doi:10.1176/appi.ajp.2018.17060611 PMid:29921143
- 23. Hultmann O, Broberg AG, Axberg U. A randomized controlled study of trauma focused cognitive behavioural therapy compared to enhanced treatment as usual with patients in child mental health care traumatized from family violence. Child Youth Serv Rev 2023; 144: 106716. doi:10.1016/j.childyouth.2022.106716
- McGuire A, Steele RG, Singh MN. Systematic Review on the Application of Trauma-Focused Cognitive Behavioral Therapy (TF-CBT) for Preschool-Aged Children. Clin Child Fam Psychol Rev 2021; 24: 20-37. doi:10.1007/s10567-020-00334-0 PMid:33428071
- 25. Chipalo E. Is Trauma Focused-Cognitive Behavioral Therapy (TF-CBT) Effective in Reducing Trauma Symptoms among Traumatized Refugee Children? A Systematic Review. J Child Adolesc Trauma 2021; 14: 545-558. doi:10.1007/s40653-021-00370-0 PMid:34790283 PMCid:PMC8586102
- Thielemann JFB, Kasparik B, König J, Unterhitzenberger J, Rosner R. A systematic review and meta-analysis of traumafocused cognitive behavioral therapy for children and adolescents. Child Abuse Negl 2022; 134: 105899. doi:10.1016/j.chiabu.2022.105899 PMid:36155943
- 27. Thomas FC, Puente-Duran S, Mutschler C, Monson CM. Trauma-focused cognitive behavioral therapy for children and youth in low and middle-income countries: A systematic review. Child Adolesc Ment Health 2022; 27: 146-160. doi:10.1111/camh.12435 PMid:33216426
- Tricco AC, Lillies E, Zarin W, O'Brien KK, Colquhoun H, Levac D, Straus SE. PRISMA Extension for Scoping Reviews (PRISMA-ScR): Checklist and Explanation | Annals of Internal Medicine.
  2018. Available from: https://www.acpjournals.org/doi/10.7326/M18-0850

doi:10.7326/M18-0850 PMid:30178033

- Murray LK, Skavenski S, Kane JC, Mayeya J, Dorsey S, Cohen JA, Michalopoulos LTM, Imasiku M, Bolton PA. Effectiveness of Trauma-Focused Cognitive Behavioral Therapy Among Trauma-Affected Children in Lusaka, Zambia. JAMA Pediatr 2015; 169: 761-769. doi:10.1001/jamapediatrics.2015.0580 PMid:26111066 PMCid:PMC9067900
- 30. Dorsey S, Lucid L, Martin P, King KM, O'Donnell K, Murray LK, et al. Effectiveness of Task-Shifted Trauma-Focused Cognitive Behavioral Therapy for Children Who Experienced Parental Death and Posttraumatic Stress in Kenya and Tanzania: A Randomized Clinical Trial. JAMA Psychiatry 2020; 77: 464-473. doi:10.1001/jamapsychiatry.2019.4475 PMid:31968059 PMCid:PMC6990668
- 31. Kane JC, Figge C, Paniagua-Avila A, Michaels-Strasser S, Akiba C, Mwenge M, et al. Effectiveness of trauma-focused cognitive behavioral therapy compared to psychosocial counseling in reducing HIV risk behaviors, substance use, and mental health problems among orphans and vulnerable children in Zambia: a community-based randomized controlled trial. AIDS Behav (e-pub ahead of print 9 October 2023 doi:10.1007/s10461-023-04179-w PMid:37812272
- 32. Edeh NI, Ugwoke EO, Anaele EN, Madusaba BM, Naboth-Odums A, Isiwu EA, et al. Supporting business educators and students against COVID-19 trauma using trauma-focused cognitive behavioral therapy. Medicine (Baltimore) 2022; 101: e29133. doi:10.1097/MD.00000000029133 PMid:35446296 PMCid:PMC9276341
- Kaminer D, Simmons C, Seedat S, Skavenski S, Murray L, Kidd M, et al. Effectiveness of abbreviated trauma-focused cognitive behavioural therapy for South African adolescents: a randomized controlled trial. Eur J Psychotraumatology 2023; 14: 2181602. doi:10.1080/20008066.2023.2181602 PMid:37052081 PMCid:PMC10013405
- 34. Jibrin AY, Adamu H, Adisa SA. Effect of trauma-focused cognitive behavioural therapy on kidnapping anxiety among secondary school students in Zaria Metropolis, Kaduna State Nigeria. Journal of Professional Counselling 2022; 5: 168-175.
- O'Callaghan P, McMullen J, Shannon C, Rafferty H. Comparing a trauma focused and non trauma focused intervention with war affected Congolese youth: a preliminary randomised trial. Interv J Ment Health Psychosoc Support Confl Affect Areas 2015; 13: 28. doi:10.1097/WTF.00000000000054
- 36. O'Callaghan P, McMullen J, Shannon C, Rafferty H, Black A. A Randomized Controlled Trial of Trauma-Focused Cognitive Behavioral Therapy for Sexually Exploited, War-Affected Congolese Girls. J Am Acad Child Adolesc Psychiatry 2013; 52: 359-369. doi:10.1016/j.jaac.2013.01.013 PMid:23582867
- O'Donnell K, Dorsey S, Gong W, Ostermann J, Whetten R, Cohen JA, et al. Treating Maladaptive Grief and Posttraumatic Stress Symptoms in Orphaned Children in Tanzania: Group-Based Trauma-Focused Cognitive-Behavioral Therapy. J Trauma Stress 2014; 27: 664-671. doi:10.1002/jts.21970 PMid:25418514 PMCid:PMC4591025
- Unterhitzenberger J, Rosner R. Case report: manualized traumafocused cognitive behavioral therapy with an unaccompanied refugee minor girl. Eur J Psychotraumatology 2016; 7: 29246. doi:10.3402/ejpt.v7.29246 PMid:26781638 PMCid:PMC4716550

- Kane JC, Murray LK, Cohen J, Dorsey S, Skavenski van Wyk S, Galloway Henderson J, et al. Moderators of treatment response to trauma-focused cognitive behavioral therapy among youth in Zambia. J Child Psychol Psychiatry 2016; 57: 1194-1202. doi:10.1111/jcpp.12623 PMid:27647052 PMCid:PMC5031361
- McMullen J, O'Callaghan P, Shannon C, Black A, Eakin J. Group trauma-focused cognitive-behavioural therapy with former child soldiers and other war-affected boys in the DR Congo: a randomised controlled trial. J Child Psychol Psychiatry 2013; 54: 1231-1241. doi:10.1111/jcpp.12094 PMid:23738530
- Murray LK, Skavenski S, Michalopoulos LM, Bolton PA, Bass JK, Familiar I, et al. Counselor and client perspectives of Traumafocused Cognitive Behavioral Therapy for children in Zambia: a qualitative study. J Clin Child Adolesc Psychol Off J Soc Clin Child Adolesc Psychol Am Psychol Assoc Div 53 2014; 43: 902-914. doi:10.1080/15374416.2013.859079 PMid:24400677 PMCid:PMC4087094
- Murray LK, Familiar I, Skavenski S, Jere E, Cohen J, Imasiku M, et al. An evaluation of trauma focused cognitive behavioral therapy for children in Zambia. Child Abuse Negl 2013; 37: 1175-1185. doi:10.1016/j.chiabu.2013.04.017 PMid:23768939 PMCid:PMC3823750
- Dorsey S, Akiba CF, Triplett NS, Lucid L, Carroll HA, Benjamin KS, et al. Consumer perspectives on acceptability of traumafocused cognitive behavioral therapy in Tanzania and Kenya: A mixed methods study. Implement Res Pract 2022; 3: 26334895221109963. doi:10.1177/26334895221109963 PMid:37091080 PMCid:PMC9924250
- Ng LC, Stevenson A, Kalapurakkel SS, Hanlon C, Seedat S, Harerimana B, et al. National and regional prevalence of posttraumatic stress disorder in sub-Saharan Africa: A systematic review and meta-analysis. PLOS Med 2020; 17: e1003090. doi:10.1371/journal.pmed.1003090 PMid:32413027 PMCid:PMC7228043
- 45. Conway M. Trauma-Focused Cognitive Behavior Therapy with Children and Adolescents: A Systematic Review. Soc Work Master's Clin Res Pap (e-pub ahead of print 2016).
- 46. Spiegel JA, Graziano PA, Arcia E, Cox SK, Ayala M, Carnero NA, O'Mara NL, Sundari Foundation. Addressing Mental Health and Trauma-Related Needs of Sheltered Children and Families with Trauma-Focused Cognitive-Behavioral Therapy (TF-CBT). Adm Policy Ment Health Ment Health Serv Res 2022; 49: 881-898. doi:10.1007/s10488-022-01207-0 PMid:35867261 PMCid:PMC9393136
- Herrenkohl TI, Hong S, Verbrugge B. Trauma-Informed Programs Based in Schools: Linking Concepts to Practices and Assessing the Evidence. Am J Community Psychol 2019; 64: 373-388. doi:10.1002/ajcp.12362 PMid:31355976
- Brown EJ, Cohen JA, Mannarino AP. Trauma-Focused Cognitive-Behavioral Therapy: The role of caregivers. J Affect Disord 2020; 277: 39-45. doi:10.1016/j.jad.2020.07.123 PMid:32791391
- Márquez YI, Deblinger E, Dovi AT. The Value of Trauma-Focused Cognitive Behavioral Therapy (TF-CBT) in Addressing the Therapeutic Needs of Trafficked Youth: A Case Study. Cogn Behav Pract 2020; 27: 253-269. doi:10.1016/j.cbpra.2019.10.001
- Peters W, Rice S, Cohen J, Murray L, Schley C, Alvarez-Jimenez M, Bendall S. Trauma-focused cognitive-behavioral therapy (TF-

CBT) for interpersonal trauma in transitional-aged youth. Psychol Trauma Theory Res Pract Policy 2021; 13: 313-321. doi:10.1037/tra0001016 PMid:33661675

#### How to Cite this Article:

Amedu AN, Dwarika V. Enhancing the mental health of children, students, and adolescents with trauma and PTSD through TF-CBT. Arch Trauma Res. 2024;13(1):1-11. doi: 10.48307/atr.2024.422501.1045