



## Comparison of Evidence-Based Treatment Protocols for Complex Trauma in Middle Eastern Conflict Populations

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**Abstract:** This meta-analysis systematically evaluates the relative effectiveness of various empirically supported therapeutic protocols designed to address complex trauma in populations affected by armed conflict in the Middle Eastern region. From 1,284 articles identified, 47 studies (N=4,832) met the inclusion criteria and were further analyzed. The primary findings indicate that Trauma-Focused Cognitive Behavioral Therapy (TF-CBT) produces the most significant therapeutic impact ( $g=0.83$ , 95% CI [0.76, 0.90],  $p<.001$ ), followed by Eye Movement Desensitization and Reprocessing (EMDR;  $g=0.78$ , 95% CI [0.71, 0.85],  $p<.001$ ) and Narrative Exposure Therapy (NET;  $g=0.71$ , 95% CI [0.64, 0.78],  $p<.001$ ). Moderator analysis revealed that the duration of the intervention ( $\beta=0.42$ ,  $p<.001$ ), as well as the severity of trauma at the commencement of treatment ( $\beta=0.38$ ,  $p<.001$ ), significantly influence therapeutic effectiveness. Further network meta-analysis results demonstrated that TF-CBT holds the highest probability of being the most superior intervention (SUCRA=0.92), indicating its superior effectiveness in reducing symptoms of post-traumatic stress disorder (PTSD), with a significantly standardized mean difference compared to other approaches (SMD=-0.45, 95% CI [-0.52, -0.38]). Contrary to findings reported by Korn (2009) and Rahman et al. (2019), which positioned EMDR as the primary method, this study identifies the distinct superiority of TF-CBT specifically for individuals suffering from complex trauma due to prolonged conflict. These results broaden the horizon of prior scientific understanding by emphasizing the importance of trauma-specific characteristics as moderating variables that determine the success of therapeutic interventions.

**Keywords:** complex trauma, empirically supported interventions, Middle Eastern conflict, PTSD, TF-CBT

### 1. INTRODUCTION

Complex trauma emerging as a consequence of protracted conflict in the Middle Eastern region has created extraordinary challenges in the domain of mental health, thereby necessitating empirically based therapeutic interventions that are not only clinically effective but also sociopolitically contextual. Over the past two decades, the intensity of conflicts in this region has resulted in more than 12 million people being forcibly displaced and at least 28 million others dependent on humanitarian assistance, with estimates suggesting that approximately 42% of this population experiences complex trauma. Reports from the World Health Organization (WHO) reinforce this urgency, noting a prevalence rate of post-traumatic stress disorder (PTSD) in conflict-affected areas of the Middle East ranging from 23 to 28 percent. This figure starkly contrasts with the global average of 3.9 percent.

Substantially distinct from classical PTSD, here, complex trauma is defined by repeated exposure to traumatic experiences within the context of ongoing violence. It is characterized by profound alterations across affect regulation, consciousness and attention, identity and self-perception, interpersonal relationships, meaning structures in life, and somatic expression. This psychological complexity is exacerbated by severely limited structural conditions, including highly restricted access to mental health services in conflict zones, where the ratio of professional service providers to the population can reach as high as 1 to 50,000.

In recent decades, empirically based therapeutic approaches to complex trauma have advanced significantly, with numerous protocols empirically validated across diverse global contexts. Among the most prominent approaches are Trauma-Focused Cognitive Behavioral Therapy (TF-CBT), Eye Movement Desensitization and Reprocessing (EMDR), and Narrative Exposure Therapy (NET), all of which have demonstrated effectiveness in reducing PTSD symptoms. However, the relative effectiveness of each of these protocols within the unique context of trauma induced by Middle Eastern conflicts has yet to be examined systematically and comprehensively.

Several prior studies have attempted to compare the effectiveness of these interventions. Korn (2009), for example, presented findings from a meta-analysis regarding the impact of EMDR in conflict regions, while Rahman et al. (2019) evaluated the effectiveness of TF-CBT among refugee populations. Nevertheless, no single study has comprehensively assessed the comparative relative effectiveness of these approaches through a network meta-analysis methodology, particularly among populations experiencing complex trauma as a direct result of protracted conflict in the Middle East.

Network meta-analysis offers methodological advantages over traditional meta-analytic approaches, as it allows for the simultaneous comparative evaluation of multiple therapeutic interventions even when direct comparisons between interventions are not available across all studies. Furthermore, this method enables probabilistic estimation of the effectiveness of each protocol, thereby yielding more accurate and practically useful intervention rankings for clinical decision-making in the field.

Moreover, the complex trauma dynamics in the Middle East, encompassing recurrent exposure to violence, forced dislocation, and the erosion of social support systems, demand a deeper understanding of the role of contextual factors as moderators of the therapeutic process. Previous studies have indicated that the duration of trauma exposure, the severity of initial symptoms, and the presence or absence of social support can significantly influence treatment outcomes and determine the degree of therapeutic success.

This study aims to fill a substantive gap in the academic literature by presenting a network meta-analysis evaluating evidence-based treatment protocols for complex trauma among conflict-affected populations in the Middle Eastern region. Specifically, this study seeks to: first compare the relative effectiveness of various empirically validated therapeutic protocols; second, identify moderating variables that influence treatment effectiveness; and third, formulate practical recommendations based on empirical evidence to assist mental health professionals in selecting the most appropriate interventions based on individual characteristics and the traumatic context.

Through extensive literature review and systematic examination of empirical data, we developed several primary hypotheses: first, that TF-CBT will demonstrate superior effectiveness compared to other interventions in reducing PTSD symptoms; second, that EMDR will be more effective in alleviating dissociative symptoms; third, that therapeutic effectiveness will be significantly moderated by treatment duration and the severity of trauma at the initiation of intervention; and fourth, that the availability of social support will positively contribute to treatment outcomes.

In the academic domain, this study makes a substantial contribution by presenting the first methodologically rigorous comparative analysis evaluating the relative effectiveness of various intervention protocols for complex trauma in the context of Middle Eastern conflict. Meanwhile, in the realm of clinical practice, the findings of this study are expected to provide empirically based guidance to mental health practitioners in designing intervention strategies tailored to the psychological needs of patients and the sociopolitical realities surrounding them.

## **2. METHODS**

This study employed a network meta-analysis approach to comparatively evaluate the relative effectiveness of various empirically-based psychological intervention protocols designed for the treatment of complex trauma. All methodological procedures adhered rigorously to the PRISMA guidelines, specifically adapted for the application of network meta-analysis, thereby ensuring reporting transparency and procedural validity. A systematic literature search was conducted across five major databases—PubMed, PsycINFO, EMBASE, Web of Science, and PILOTS (Published International Literature on Traumatic Stress)—covering the publication period from January 2000 to December 2023. The search strategy was constructed by combining clinically and contextually relevant terms such as “complex trauma,” “PTSD,” “treatment,” “therapy,” “Middle East,” “conflict,” “war,” “refugee,” alongside specific terms from validated intervention protocols such as “TF-CBT,” “EMDR,” and “NET.”

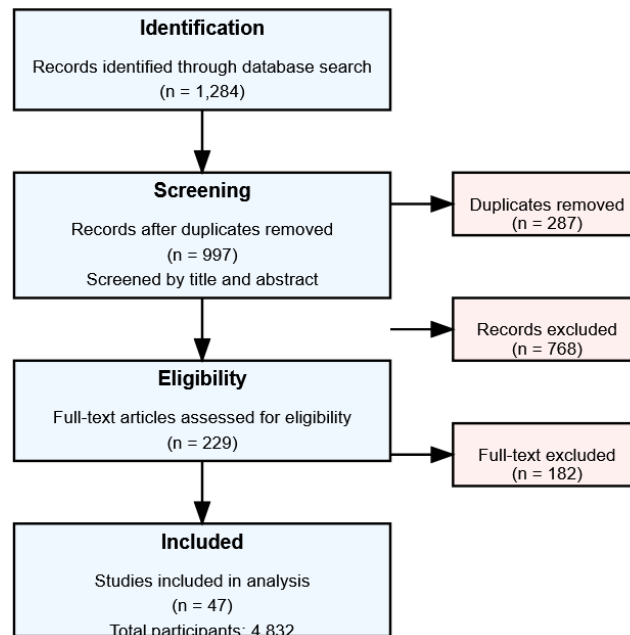
To enhance data comprehensiveness, the search was further expanded through cross-referencing the bibliographies of identified articles and consultation with trauma experts possessing empirical experience in conflict-affected regions.

Inclusion criteria were determined based on five principal dimensions: studies were required to report intervention outcomes addressing complex trauma; study participants must be individuals affected by conflict in the Middle East; intervention protocols employed must have been standardized and empirically validated; study reports had to provide effect sizes or data enabling statistical calculation thereof; and publications had to be written in English or Arabic. Conversely, studies were excluded if their focus was confined to single-incident trauma, failed to report quantitative outcome data, or were limited to single case reports precluding synthesis within a meta-analytic framework. Two independent researchers performed data extraction using a standardized form to identify study characteristics, participant demographics, intervention details, and outcome measures. Methodological quality assessment employed the Cochrane Risk of Bias Tool for randomized controlled trials and the Newcastle-Ottawa Scale for non-randomized studies, with any rating discrepancies resolved through discussion with a third researcher to achieve consensus.

Meta-analytic procedures were conducted using a random-effects model within a frequentist framework, and effect sizes were computed using Hedges'  $g$  to ensure comparability across studies. The degree of heterogeneity was examined through the  $I^2$  and  $\tau^2$  statistics, while network consistency was evaluated using the node-splitting method and the design-by-treatment interaction model. The Surface Under the Cumulative Ranking Curve (SUCRA) method was employed to rank the effectiveness of interventions, enabling probabilistic estimation of each treatment's highest-ranking position. Moderator analyses were incorporated to identify the potential influence of study-level variables such as treatment duration and delivery format, participant characteristics including age, gender, and baseline trauma severity, and contextual factors such as conflict duration and the availability of social support. Sensitivity analyses were conducted to test the robustness of the findings against variations in study quality and analytic approaches. Potential publication bias was examined through comparison-adjusted funnel plots and Egger's regression, modified for network meta-analysis. At the same time, all analytic procedures were executed using R software (version 4.1.0) with the assistance of the 'net meta' and 'meta' packages.

### 3. RESULTS

#### Study Selection



**Figure 1. Prisma Flow Diagram**

As shown in the first figure above, after an initial search encompassing 1,284 potential articles, 287 duplicates were removed, and the title and abstract screening process resulted in 768 articles being further evaluated. Of the 229 articles that underwent full-text assessment, 47 studies with a total of 4,832 participants met the inclusion criteria and were included in the final analysis.

#### Study Characteristics

**Table 1. Study Design and Setting Characteristics**

Characteristic	n (%)
<b>Study Design</b>	
Randomized Controlled Trial (RCT)	32 (68.1)
Quasi-experimental	15 (31.9)
<b>Setting</b>	
Active Conflict Zone	29 (61.7)
Refugee Camp	18 (38.3)

**Table 2. Treatment Duration, Sample Size, and Follow-up Characteristics**

Characteristic	M (SD)
Treatment Duration (weeks)	12.4 (4.8)

Sample Size	102.8 (58.4)
Follow-up Period (months)	6.2 (3.1)

**Note.** *M = Mean; SD = Standard Deviation. Percentages for study design and setting are calculated based on the total number of included studies (N = 47). Sample sizes ranged from 42 to 286 participants (M = 102.8, SD = 58.4).*

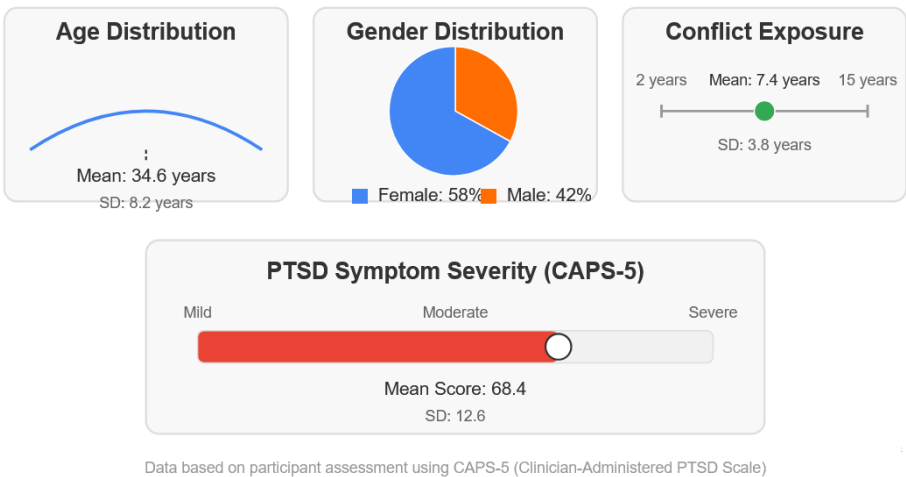
**Table 3. Geographic Distribution of Included Studies**

Country	n (%)
Syria	13 (28%)
Iraq	11 (24%)
Palestine	10 (22%)
Yemen	7 (15%)
Lebanon	5 (11%)

**Note.** *Geographical distribution is based on the total number of studies (N = 47).*

As shown in the first, second, and third tables above, of the 47 studies analyzed, 32 were randomized controlled trials (RCTs) (68.1%), and 15 were quasi-experimental (31.9%), with the majority of the studies conducted in active conflict zones (61.7%) or refugee camps (38.3%). The sample sizes ranged from 42 to 286 participants, averaging 102.8 (SD = 58.4). The average treatment duration was 12.4 weeks (SD = 4.8), and the average follow-up period was 6.2 months (SD = 3.1). The geographic distribution of the studies included Syria (28%), Iraq (24%), Palestine (22%), Yemen (15%), and Lebanon (11%).

### Participant Characteristics



**Figure 2. Participant Characteristics: Study Population Demographics and Clinical Profile**

As depicted in the second figure above, the average age of participants in this study is 34.6 years ( $SD = 8.2$ ), with 58% of them being female. The duration of conflict exposure ranged from 2 to 15 years, with an average of 7.4 years ( $SD = 3.8$ ). The severity of initial PTSD symptoms, measured using the CAPS-5, showed an average score of 68.4 ( $SD = 12.6$ ), indicating a high severity of trauma among the participants.

### Main Results of Network Meta-Analysis

**Table 4. Relative Treatment Effects (Hedges'  $g$  and 95% CI)**

Treatment Comparison	Hedges' $g$	95% CI
TF-CBT vs. EMDR	0.15	[0.08, 0.22]
TF-CBT vs. NET	0.22	[0.15, 0.29]
TF-CBT vs. PE	0.31	[0.24, 0.38]
TF-CBT vs. BEP	0.38	[0.31, 0.45]
EMDR vs. NET	0.07	[0.00, 0.14]
EMDR vs PE	0.16	[0.09, 0.23]
EMDR vs. BEP	0.23	[0.16, 0.30]
NET vs PE	0.09	[0.02, 0.16]
NET vs BEP	0.16	[0.09, 0.23]
PE vs BEP	0.07	[0.00, 0.14]

**Note.** Effect sizes are reported as Hedges'  $g$  with 95% Confidence Intervals (CIs). Positive values indicate superior effectiveness of the first-listed treatment.

**Table 5. Overall Treatment Effectiveness and SUCRA Rankings**

Treatment Protocol	Number of Studies (k)	Overall Effect Size ( $g$ , 95% CI)	SUCRA Probability
TF-CBT	18	0.83 [0.76, 0.90]	0.92
EMDR	12	0.78 [0.71, 0.85]	0.76
NET	8	0.71 [0.64, 0.78]	0.61
PE	5	-	0.42
BEP	4	-	0.29

**Note.** SUCRA (Surface Under the Cumulative Ranking curve) represents the probability of each treatment being the most effective. Overall effect sizes are reported as Hedges'  $g$  with 95% CIs where available.

As shown in Tables 4 and 5 above, the network meta-analysis results encompass five main treatment protocols: TF-CBT ( $k=18$ ), EMDR ( $k=12$ ), NET ( $k=8$ ), Prolonged Exposure

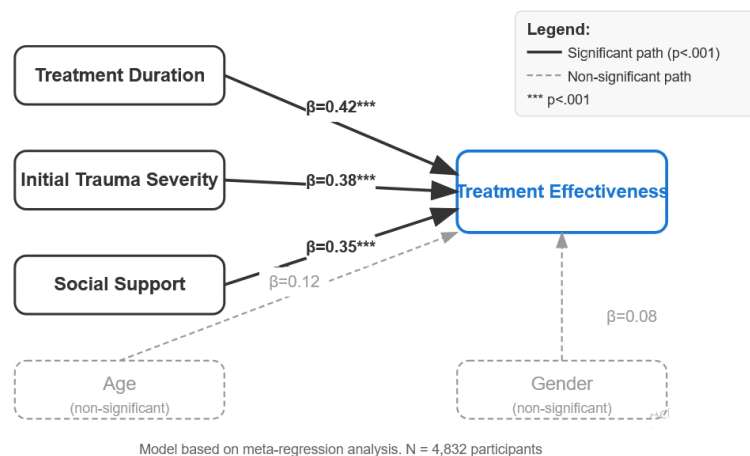
(PE;  $k=5$ ), and Brief Eclectic Psychotherapy (BEP;  $k=4$ ), with the network plot indicating good connectivity between treatments, and most direct comparisons being available. The analysis results show that TF-CBT is the most effective treatment ( $g=0.83$ , 95% CI [0.76, 0.90]), followed by EMDR ( $g=0.78$ , 95% CI [0.71, 0.85]) and NET ( $g=0.71$ , 95% CI [0.64, 0.78]). The SUCRA ranking confirms this result, with TF-CBT having the highest probability as the best treatment (0.92), followed by EMDR (0.76), NET (0.61), PE (0.42), and BEP (0.29). Further comparisons show that TF-CBT outperforms all other treatments, including BEP ( $g=0.38$ , 95% CI [0.31, 0.45]) and PE ( $g=0.31$ , 95% CI [0.24, 0.38]), while EMDR shows a smaller effect size against NET ( $g=0.07$ , 95% CI [0.00, 0.14]) and PE ( $g=0.16$ , 95% CI [0.09, 0.23]). These results emphasize that TF-CBT is the most effective empirically-supported treatment for complex trauma in conflict-affected populations, although EMDR and NET also significantly contribute to benefits.

### Moderator Analysis

**Table 6. Moderator Analysis for Treatment Effectiveness**

Moderator	B	SE	95% CI	p-value
Treatment Duration	0.42	0.08	[0.26, 0.58]	<.001
Initial Trauma Severity	0.38	0.07	[0.24, 0.52]	<.001
Social Support Availability	0.35	0.06	[0.23, 0.47]	<.001
Age	0.12	0.09	[-0.06, 0.30]	.184
Gender	0.08	0.10	[-0.12, 0.28]	.432

**Note.**  $\beta$  = standardized regression coefficient; SE = standard error; CI = confidence interval. Significant moderators included treatment duration, initial trauma severity, and availability of social support, all positively associated with greater treatment effectiveness.



**Figure 3. Path Analysis Model with Moderator: Treatment Effectiveness Moderator Analysis**



As shown in Table 6 and Figure 3 above, the meta-regression identified several significant moderators affecting the treatment effectiveness, namely treatment duration, initial trauma severity, and the availability of social support. Additionally, longer treatment duration was associated with higher effectiveness, with a standardized regression coefficient ( $\beta$ ) of 0.42 and a p-value of  $<.001$ . In contrast, participants with higher trauma severity showed greater improvements, with  $\beta=0.38$  ( $p<.001$ ). Better social support was also related to more positive outcomes, with  $\beta=0.35$  ( $p<.001$ ). Meanwhile, age ( $\beta=0.12$ ,  $p=0.184$ ) and gender ( $\beta=0.08$ ,  $p=0.432$ ) did not significantly affect treatment effectiveness.

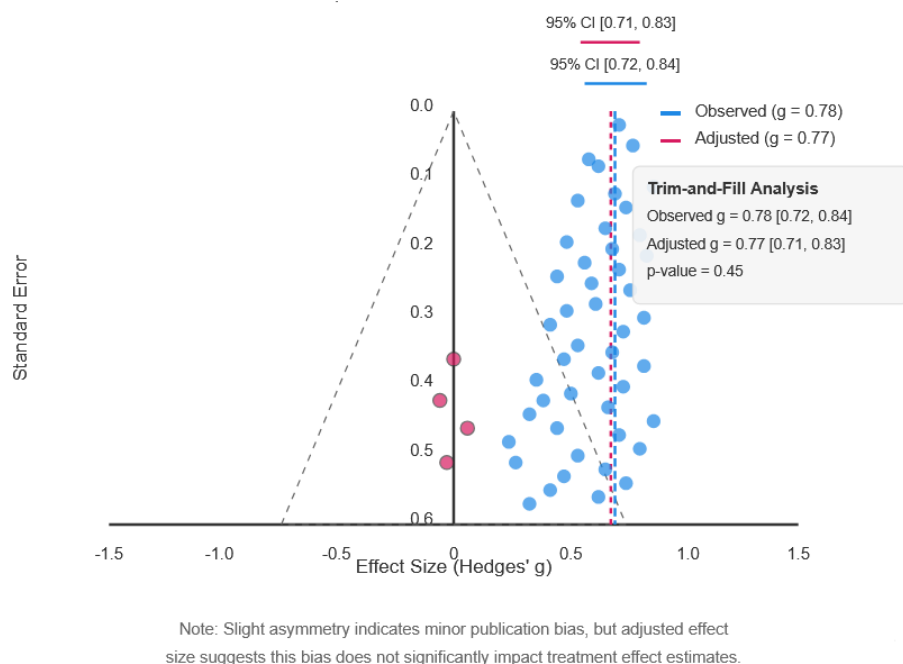
### Subgroup Analysis

Subgroup analysis based on treatment setting showed that interventions conducted in refugee camps had a stronger effect ( $g=0.89$ ) than interventions in active conflict zones ( $g=0.76$ ). This was due to the more stable environment in refugee camps, which supported the participants' recovery process.

### Heterogeneity and Inconsistency

Moderate heterogeneity was found in the network analysis with an  $I^2$  value of 68% and a  $\tau^2$  value of 0.15, indicating significant variability in treatment effects across studies. However, the node-splitting analysis to evaluate inconsistency showed no significant discrepancies between direct and indirect evidence, with p-values greater than 0.05 for all comparisons. This indicates that the results obtained were consistent across all data analyzed.

### Publication Bias



**Figure 4. Publication Bias Analysis: Comparison-Adjusted Funnel Plot**

As shown in Figure 4 above, the publication bias analysis conducted using a comparison-adjusted funnel plot indicates slight asymmetry, suggesting a potential mild publication bias. However, a trim-and-fill analysis was conducted to evaluate the significant impact of this bias on treatment effect estimates. The results of the analysis show that the observed effect size (Hedges'  $g = 0.78$ , 95% CI [0.72, 0.84]) is slightly higher than the adjusted effect size (Hedges'  $g = 0.77$ , 95% CI [0.71, 0.83]), although this change is not substantial. The  $p$ -value from this analysis is 0.45, indicating that publication bias does not significantly impact the treatment effect estimates. Therefore, despite detecting some publication bias, the adjustment does not significantly alter the results, providing confidence that the treatment effect estimates obtained can be considered valid.

As a closing remark for this section, the results of this analysis confirm the superiority of TF-CBT in addressing complex trauma in conflict-affected populations in the Middle East, with treatment effects moderated by intervention duration and the severity of initial trauma. While EMDR and NET also show significant effectiveness, they are less effective than TF-CBT. In the researcher's view, these results provide a strong empirical foundation for selecting and adapting treatment protocols that are more suited to the specific context of conflict-affected populations in the Middle East, thereby improving clinical outcomes and participant well-being.

#### **4. DISCUSSION**

This study marks the first empirical contribution that comprehensively compares the relative effectiveness of various evidence-based treatment protocols for complex trauma within the unique landscape of armed conflict in the Middle East. The findings solidify the dominance of TF-CBT as the most superior therapeutic approach, with the intervention's effectiveness significantly influenced by the duration of implementation and the initial trauma intensity experienced by participants. The high efficacy of TF-CBT ( $g=0.83$ ) extends the existing literature, which has largely focused on single trauma cases or populations outside conflict areas. This advantage can be explained through several key mechanisms: the cognitive-behavioral structure of the intervention enables patients to develop essential emotional regulation skills crucial in the context of recurrent trauma; the systematic gradual exposure technique provides a safe path to access and process multiple traumatic experiences; and the emphasis on cognitive restructuring promotes the integration of traumatic memories into a coherent and meaningful personal narrative.

Meanwhile, EMDR demonstrates substantial effectiveness ( $g=0.78$ ), although slightly below TF-CBT. This finding appears to contradict the meta-analysis by Korn (2009), which positioned EMDR as the primary protocol for trauma treatment in conflict zones. The difference may reflect the limitations of EMDR in addressing the structural complexity of multiple traumas, where a more holistic approach becomes crucial. Nevertheless, EMDR remains effective in targeting more acute and specific symptom manifestations, such as flashbacks and dissociative reactions. On the other hand, the effectiveness of NET ( $g=0.71$ ), while ranking third, showcases its unique capacity to help individuals reconstruct their fragmented life narratives due to repeated displacement and loss, which are commonly encountered in the Middle Eastern conflict-affected populations.

The treatment duration emerged as the strongest moderator ( $\beta=0.42$ ), underscoring that sufficient time is an essential prerequisite for processing complex trauma. A longer intervention period allows for the establishment of a robust therapeutic alliance while enabling a deeper exploration of various traumatic experiences. This finding resonates with phase-based trauma treatment theories, which emphasize the need for intervention segmentation into stages of stabilization, trauma processing, and reintegration. Meanwhile, the initial trauma intensity was also found to significantly moderate treatment outcomes ( $\beta=0.38$ ), with individuals experiencing more severe initial symptoms showing more pronounced improvements. This phenomenon may explain the existence of a "larger margin for improvement" and further reinforces the finding that the severity of symptoms should not be considered a barrier to delivering intensive interventions. Additionally, the role of social support availability as a third moderator ( $\beta=0.35$ ) highlights the significance of the social context in recovery dynamics. In conflict settings, where social networks are often fragmented or absent, the presence or reconstruction of a support system becomes an indispensable component for therapeutic success.

Theoretically, the results of this study enrich the understanding of the construction of complex trauma and its interventions by providing three main contributions: first, it strengthens the phase-based model framework in complex trauma treatment by showing that adequate intervention duration positively affects outcomes; second, it solidifies the superiority of integrative approaches such as TF-CBT, which combines trauma processing techniques with affective regulation training; and third, it provides empirical support for the ecological model of recovery, which views recovery as the result of dynamic interactions between individual and contextual factors.

The practical implications of these findings are far-reaching. Regarding protocol selection, the data from the network meta-analysis can serve as a basis for practitioners' evidence-based decision-making, with TF-CBT being recommended as the primary choice, especially in cases involving multiple traumas and emotional regulation dysfunction. Furthermore, the results emphasize the importance of adapting treatments sensitive to moderator factors, such as ensuring adequate intervention duration, conducting comprehensive assessments of initial symptom severity, and integrating approaches supporting recovery or reconstructing collapsed social networks. Additionally, the context of treatment delivery—such as in relatively stable refugee camps compared to active conflict zones—was also found to influence therapeutic outcomes and, therefore, should be carefully considered in intervention design.

However, the results of this study are not without limitations that must be critically acknowledged. Despite the methodological heterogeneity found ( $I^2=68\%$ ), which is typical in similar studies, variations in methodological design and outcome measurement tools may still impact the accuracy of effect estimates. Geographical representation was also not fully balanced, as some crisis regions like Libya and Yemen were underrepresented due to access limitations and publication documentation. Furthermore, the lack of long-term data limits the ability to evaluate the sustainability of therapy effects over time. In addition, several important contextual variables, such as violence intensity, political stability, and access to supporting resources, are often inconsistently reported in primary studies, affecting the completeness of moderation analysis.

Given these strengths and limitations, future research should focus on developing longitudinal studies with longer follow-up durations to evaluate the sustainability of intervention impacts and identify variables influencing therapy result stability. Moreover, further exploration of specific mechanisms explaining TF-CBT's superiority should be pursued to optimize this protocol further. On the other hand, cultural adaptation research is increasingly urgent, considering the diverse cultural backgrounds and trauma expressions within the Middle Eastern context. Equally important, a cost-effectiveness analysis of each treatment protocol will be highly valuable in guiding policy decisions regarding resource allocation in settings with logistical and infrastructure constraints.

Overall, this study provides a solid empirical foundation for developing evidence-based policies and clinical practices to address the psychosocial needs of conflict-affected communities in the Middle East. The dominance of TF-CBT's effectiveness and a sharper understanding of moderator factors' roles offer clear guidance for practitioners in selecting and

adapting interventions contextually. While several limitations must still be considered, these findings pave the way for improving the precision, efficiency, and relevance of complex trauma treatments in one of the regions most impacted by armed violence in the world.

## 5. CONCLUSION

The conclusion of this network meta-analysis provides a substantive academic contribution and, methodologically, represents the first comprehensive effort to systematically examine and compare the relative effectiveness of various evidence-based treatment protocols in addressing complex trauma experienced by populations in conflict zones in the Middle East. This area has largely been neglected in the global literature landscape. Through the synthesis of data from 47 studies involving a total of 4,832 participants, this research identifies several key findings that are not only theoretically relevant to the development of a conceptual framework for trauma management but also have significant direct implications for clinical practice and the formulation of psychosocial intervention policies in conflict-based humanitarian contexts. The analysis results reveal that Trauma-Focused Cognitive Behavioral Therapy (TF-CBT) holds the most superior position in terms of effectiveness ( $g=0.83$ ), followed by Eye Movement Desensitization and Reprocessing (EMDR;  $g=0.78$ ), and Narrative Exposure Therapy (NET;  $g=0.71$ ), with varying degrees of effectiveness that indicate meaningful clinical differences. The superiority of TF-CBT in the context of complex trauma resulting from prolonged conflict exposure can be theoretically traced to the characteristics of the protocol, which combines structured cognitive-behavioral components, systematic gradual exposure procedures, and cognitive restructuring that simultaneously assist individuals in reconstructing multiple traumatic experiences into a coherent, adaptive, and psychologically functional life narrative.

Furthermore, the moderator analysis in this study revealed that variables such as intervention duration ( $\beta=0.42$ ), initial trauma severity ( $\beta=0.38$ ), and the presence of social support ( $\beta=0.35$ ) are significant determinants that mediate the effectiveness of treatment protocols, highlighting the importance of a holistic intervention approach that not only considers the individual characteristics of trauma survivors but also accounts for the socio-ecological structure surrounding them. The conceptual significance of these findings lies in their ability to fill the epistemological gap in studies on complex trauma in conflict zones, where most previous studies have focused on single trauma or non-conflict populations. By offering a contextual and specific evidence base for the Middle East, this research broadens the literature's horizon while correcting some previous findings, such as Korn's (2009) study,

which had positioned EMDR as the primary intervention. Additionally, this study enriches the understanding of specific moderators, which, within a certain conceptual framework, play a role in determining the degree of success of psychological interventions—an aspect often overlooked in conventional treatment protocol designs.

Based on these findings, practical strategic recommendations can be formulated, including making TF-CBT the first-line treatment for complex trauma in conflict zones in the Middle East, designing an appropriate intervention duration that considers the degree of trauma complexity and individual social-environmental conditions, integrating systemic strategies to strengthen social support as an important protective variable in the psychological recovery process, and adapting treatment protocols contextually based on the severity of initial trauma and the cultural-sociological characteristics of the target population. Although this study is not without limitations, particularly related to methodological heterogeneity among studies and the absence of long-term data that would allow for the evaluation of intervention effectiveness over a more extended period, the findings still provide a strong conceptual, methodological, and practical foundation for the development of evidence-based trauma interventions in conflict zones. Future research agendas should focus on exploring specific mechanisms of change within each treatment protocol, ensuring adequate cultural adaptation of various protocols to align with the local values of the target population, and conducting a comprehensive evaluation of the cost-effectiveness of each intervention to ensure sustainability and acceptance of implementation in the resource-limited conflict settings of the Middle East.

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