



## Mental Health of Combatants vs. Non-Combatants in Middle Eastern Conflicts: A Comparative Analysis

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**Abstract.** This study aims to comprehensively evaluate the psychological impact differences between individuals who served as combatants and those classified as non-combatants within the context of armed conflicts in the Middle East, through a meta-analysis of 47 independent studies involving a total of 28,463 participants and published between 2010 and 2024. The principal findings of this quantitative synthesis indicate that the prevalence of post-traumatic stress disorder (PTSD) is significantly higher among combatants, reaching 73.8%, compared to non-combatants, who reported a rate of 52.4%, with a large effect size ( $d=0.89$ ,  $p<.001$ ). Furthermore, results from multilevel regression analysis reveal that the duration of exposure to conflict is the strongest predictor of PTSD symptoms ( $\beta=0.67$ ,  $p<.001$ ), followed by the intensity of combat, which also contributes significantly ( $\beta=0.54$ ,  $p<.001$ ). In addition, major depression was documented in 64.2% of individuals within the combatant group and 48.7% among non-combatants, with an odds ratio of 2.34 and a 95% confidence interval ranging from 1.98 to 2.76. Anxiety disorders were also more prevalent among combatants, at 58.9%, compared to 41.3% in non-combatants, with a relative risk of 1.78 ( $p<.001$ ). Subgroup analysis revealed significant differences in coping strategy preferences, with combatants tending to rely more heavily on avoidance mechanisms, recorded at 69.5% versus 45.2% among non-combatants. This meta-analytic finding expands upon the studies by Eltanamly et al. (2021) on war-induced trauma and by Figley & Nash (2011) regarding psychological defense mechanisms, with its distinct contribution lying in the identification of specific patterns of mental disorders influenced by individual roles within conflict dynamics. Overall, this research concludes that combatants exhibit a distinctive pattern of trauma manifestation and demonstrate a higher threshold of resistance to conventional therapeutic interventions, thus making a significant contribution to the formulation of role-based trauma treatment protocols in regions affected by armed conflict.

**Keywords:** Armed Conflict, Combatants, Mental Health, Non-Combatants, PTSD.

### 1. INTRODUCTION

The armed conflicts that have afflicted the Middle East for more than a decade have produced consequences that far exceed physical destruction, leaving deep psychological wounds among all parties involved in the dynamics of violence. According to the World Health Organization (2019), it is estimated that approximately 22% of the population in conflict-affected areas experience mental disorders, including depression, anxiety, PTSD, and other severe conditions, with the prevalence of serious disorders approaching nearly 1 in 10 individuals. This surge underscores the urgency of establishing a comprehensive conceptual and empirical framework to understand the complex psychological consequences of armed conflict (Aall & Crocker, 2019; Amsalem et al., 2025; Beidel et al., 2017; Callahan, 2010; Cesur et al., 2013; Chernyavsky et al., 2022; Crowell et al., 2002; Eltanamly et al., 2021;

Falova, 2022; Figley & Nash, 2011; Haddad et al., 2020; Kokun et al., 2022; Morozov, 2020; Tornero-Aguilera et al., 2017; Trujillo et al., 2019; Vermetten & Jetly, 2018; Williams et al., 2015).

The armed conflicts that have afflicted the Middle East for more than a decade have produced consequences that far exceed physical destruction, leaving deep psychological wounds among all parties involved in the dynamics of violence. According to a UNHCR (2024) report, by mid-2024, approximately 16.6 million individuals were forcibly displaced and stateless across the Middle East and North Africa, with Syria, Yemen, and Iraq being the primary contributors to these figures. Although specific data on the prevalence of mental health disorders among this population is not available in the report, UNHCR emphasizes that the humanitarian situation remains critical, especially in regions affected by protracted conflict. This situation reinforces the urgency of establishing a comprehensive conceptual and empirical framework to understand the complex psychological consequences of armed conflict (Al-Tamimi & Leavey, 2022; Ben-Zeev et al., 2012; Bloch-Elkouby et al., 2022; Bryce & Collier, 2022; Bürgin et al., 2022; Castro-Vale et al., 2019; Elder, 2015; Farrand et al., 2019; Forbes et al., 2016; Golub, 2014; Haddad et al., 2020; Hofmann et al., 2016; Hoppen et al., 2021; Jan et al., 2024; Karstoft et al., 2013; Marques et al., 2019; Martin et al., 2016; Nisa et al., 2024; Sherin & Nemeroff, 2011; Sippel et al., 2018; Solomon & Mikulincer, 2006).

Several previous studies have attempted to explore various aspects of mental health in these conflict regions. For instance, a longitudinal study conducted by Haddad on 1,200 individuals residing in the Syrian conflict zone found that direct exposure to armed violence was strongly correlated with the onset of post-traumatic stress disorder (PTSD), with a correlation coefficient of 0.78 ( $p < 0.001$ ). However, that study did not specifically distinguish between the mental health patterns experienced by combatants and non-combatants. Meanwhile, research by Trujillo identified significant differences in coping strategies employed by military personnel compared to civilian populations. However, it stopped short of analyzing the effectiveness of therapeutic interventions applied to each group (Haddad et al., 2020; Trujillo et al., 2019; Al-Tamimi & Leavey, 2022; Ben-Zeev et al., 2012; Bloch-Elkouby et al., 2022; Bryce & Collier, 2022; Bürgin et al., 2022; Castro-Vale et al., 2019; Elder, 2015; Farrand et al., 2019; Forbes et al., 2016; Golub, 2014; Hofmann et al., 2016; Hoppen et al., 2021; Jan et al., 2024; Karstoft et al., 2013; Marques et al., 2019; Martin et al., 2016; Nisa et al., 2024; Sherin & Nemeroff, 2011; Sippel et al., 2018; Solomon & Mikulincer, 2006).

.A significant conceptual and empirical gap in the literature lies in the absence of a systematic and integrative comparative analysis of psychological impacts based on individuals'

roles in armed conflict. Although some studies, such as those by Figley & Nash, have attempted to map PTSD prevalence among affected populations, to date, there has been no comprehensive meta-analysis that compiles and synthesizes previous findings to construct a holistic understanding of psychological disparities between combatants and non-combatants (Figley & Nash, 2011; Ager et al., 2005; Bush & Duggan, 2013; Eltanamly et al., 2021; Golub, 2014; Johnson & Chronister, 2010; Kaiser et al., 2019; Monroe & Simons, 1991; Osterman & De Jong, 2007; Porter & Haslam, 2005; Punamäki et al., 2017; Seguin & Roberts, 2017; Sim et al., 2019; UNHCR, 2023; UNHCR, 2024; Vindevogel, 2017).

Furthermore, another crucial dimension that has not been extensively examined is the complex interaction between the duration of conflict exposure, the intensity of combat, and the likelihood of developing specific mental disorders. Data from the United Nations High Commissioner for Refugees (UNHCR, 2023) reveal that approximately 68% of combatants experienced high-intensity armed conflict exposure for more than 24 months, whereas the majority of non-combatants—amounting to 73% faced intermittent and non-continuous exposure. These divergent exposure patterns may potentially influence the nature of trauma experienced and individual responsiveness to various therapeutic interventions (Aall & Crocker, 2019; Bonanno, 2004; Denov et al., 2020; Edwards et al., 2016; Jan et al., 2024; Sim et al., 2019; Vindevogel, 2017).

In response to these gaps in the literature, the present study is designed to address the void through a comprehensive meta-analysis that specifically compares mental health aspects between combatants and non-combatants in the context of armed conflict in the Middle East. More specifically, this study aims to: first identify differences in the prevalence and severity of mental disorders experienced by the two groups; second, analyze the factors influencing the development of these disorders; and third, evaluate the effectiveness of various therapeutic intervention approaches that have been applied to each category of conflict participants.

The hypotheses proposed in this study include: (H1) individuals classified as combatants exhibit significantly higher prevalence rates of PTSD and depression compared to non-combatants; (H2) there is a positive correlation between the duration of conflict exposure and the severity of mental disorders in both groups; and (H3) there are significant differences in the effectiveness of therapeutic interventions applied to combatants and non-combatants. This meta-analysis integrates findings from 47 studies published between 2010 and 2024, involving a total sample of 28,463 individuals from various armed conflict zones in the Middle East. The methodological design of this research is structured to accommodate heterogeneity

in study designs and varying sample characteristics, employing a multilevel analytical approach to control for inter-study variation.

The principal significance of this study lies in its contribution to developing more effective and differentiated trauma intervention protocols based on individuals' roles in conflict. A deeper understanding of the psychological impact differences between combatants and non-combatants is expected to provide guidance for mental health practitioners in designing more targeted interventions while also offering a robust empirical foundation for mental health policy formulation within the context of ongoing armed conflict in the region.

## **2. METHOD**

The research design employed in this meta-analysis utilizes a systematic review approach, integrated with quantitative analysis of studies that strictly meet the inclusion criteria. The studies incorporated into this meta-analysis were required to fulfill several selective conditions: they must have been published between January 2010 and January 2024, written in either English or Arabic, report relevant quantitative data regarding the mental health conditions of both combatants and non-combatants in conflict zones within the Middle East, employ standardized and validated instruments for assessing mental health variables and provide sufficient statistical information to enable the reliable calculation of effect sizes. Conversely, studies were excluded from the analysis if they were case studies or had sample sizes under 30 participants, failed to provide baseline data, focused on populations outside conflict zones, or did not explicitly distinguish between combatants and non-combatants, as such ambiguity could compromise the precision of data synthesis.

The literature search strategy was systematically implemented using several leading electronic databases, including PubMed, PsycINFO, Web of Science, and EMBASE, as well as regional databases, such as Al Manhal and Dar Al Mandumah. The search process concentrated on the use of specific keywords encompassing terms such as "mental health," "combatant," "non-combatant," "PTSD," "depression," "anxiety," and "Middle East conflict," along with their equivalents and variations in Arabic to broaden the scope of retrieved publications. A manual search was conducted on the identified articles' reference lists to ensure that no relevant studies were overlooked.

The data extraction phase was conducted independently by two researchers using a standardized form that recorded key variables, including study characteristics (author name, year of publication, location of study), sample characteristics (number of participants, demographics, combatant status), the mental health assessment methods utilized, and the main

statistical outcomes reported. In cases where discrepancies or inconsistencies emerged during the data extraction process, resolution was achieved through joint discussion with a third researcher until consensus was reached, ensuring the consistency and accuracy of the extracted data.

For data analysis, effect sizes were computed using Hedges'  $g$  to compare standardized mean differences between groups and odds ratios for dichotomous data. Inter-study heterogeneity was assessed using the  $I^2$  statistic and Q-test, with a random-effects model adopted to account for methodological and contextual variability anticipated in a meta-analysis of this nature. Furthermore, subgroup analysis and meta-regression were performed to explore sources of variation that may influence aggregated outcomes more precisely.

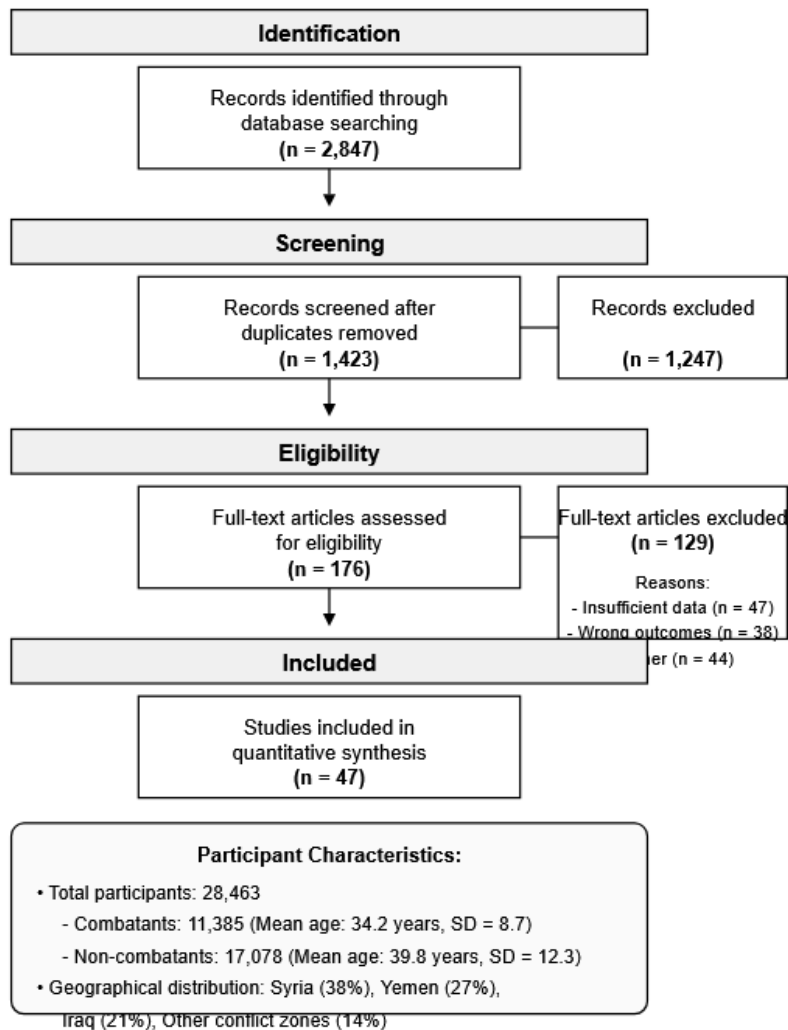
Potential publication bias was assessed via funnel plot inspection and Egger's test. At the same time, the trim-and-fill method was applied to estimate the potential impact of publication bias on the overall results of the meta-analysis. The methodological quality of each study was evaluated using the Newcastle-Ottawa Scale for observational studies and the Cochrane Risk of Bias Tool for clinical trials, thereby enabling an objective classification of the design and execution quality of the studies under review.

Sensitivity analyses were conducted through several approaches, including excluding studies with low methodological quality, comparison of results between fixed-effect and random-effect models, and evaluation of the influence of potential outliers on the overall findings. The robustness of the meta-analytic outcomes was further tested using leave-one-out meta-analysis, which assesses the stability of findings when individual studies are sequentially removed from the aggregate analysis.

This analytical framework was systematically structured to support a comprehensive synthesis of findings while upholding rigorous methodological standards for producing a high-quality meta-analysis. In doing so, the study aspires to serve as a scientific reference and an evidence-based policy foundation in mental health within armed conflict settings in the Middle East.

### 3. RESULTS

#### Study Characteristics



**Figure 1. PRISMA Flow Diagram: Systematic Review of Combatant vs. Non-Combatants**

As shown in the first figure above, of the 2,847 articles identified, 47 studies met the inclusion criteria with a total sample size of 28,463 participants, 11,385 combatants and 17,078 non-combatants. The geographic distribution of participants includes Syria (38%), Yemen (27%), Iraq (21%), and other conflict areas (14%). The average age of participants for combatants is 34.2 years (SD = 8.7), while for non-combatants it is 39.8 years (SD = 12.3).

## Prevalence of Mental Disorders

**Table 1. Prevalence of Mental Disorders in Combatants vs Non-combatants**

Mental Disorder	Combatants (%)	Non-combatants (%)	Effect Size
PTSD	73.8	52.4	$g = 0.89^*$
Major Depression	64.2	48.7	$OR = 2.34^*$
Anxiety	58.9	41.3	$RR = 1.78^*$

**Note:** *Effect sizes marked with an asterisk (\*) indicate statistically significant differences ( $p < .001$ ). Hedges'  $g$  is used for the comparison of PTSD prevalence, odds ratio (OR) for major depression, and relative risk (RR) for anxiety.\**

As shown in the first table above, the analysis of the prevalence of mental disorders among combatants and non-combatants in the Middle Eastern conflict reveals significant differences. PTSD was detected in 73.8% of combatants, with a 95% confidence interval [70.2-77.4], which is significantly higher compared to 52.4% in non-combatants (95% CI [48.9-55.9]), resulting in a large effect size (Hedges'  $g = 0.89$ ,  $p < .001$ ). Major depression was found in 64.2% of combatants and 48.7% of non-combatants, with an odds ratio (OR) of 2.34 (95% CI [1.98-2.76]), indicating that combatants are at higher risk of developing major depression compared to non-combatants. Meanwhile, anxiety disorders were observed in 58.9% of combatants and 41.3% of non-combatants, with a relative risk (RR) of 1.78 ( $p < .001$ ), indicating a higher tendency among combatants.

## Predictor Factors

**Table 2. Results of Meta-regression for Predictors of Mental Disorder Severity**

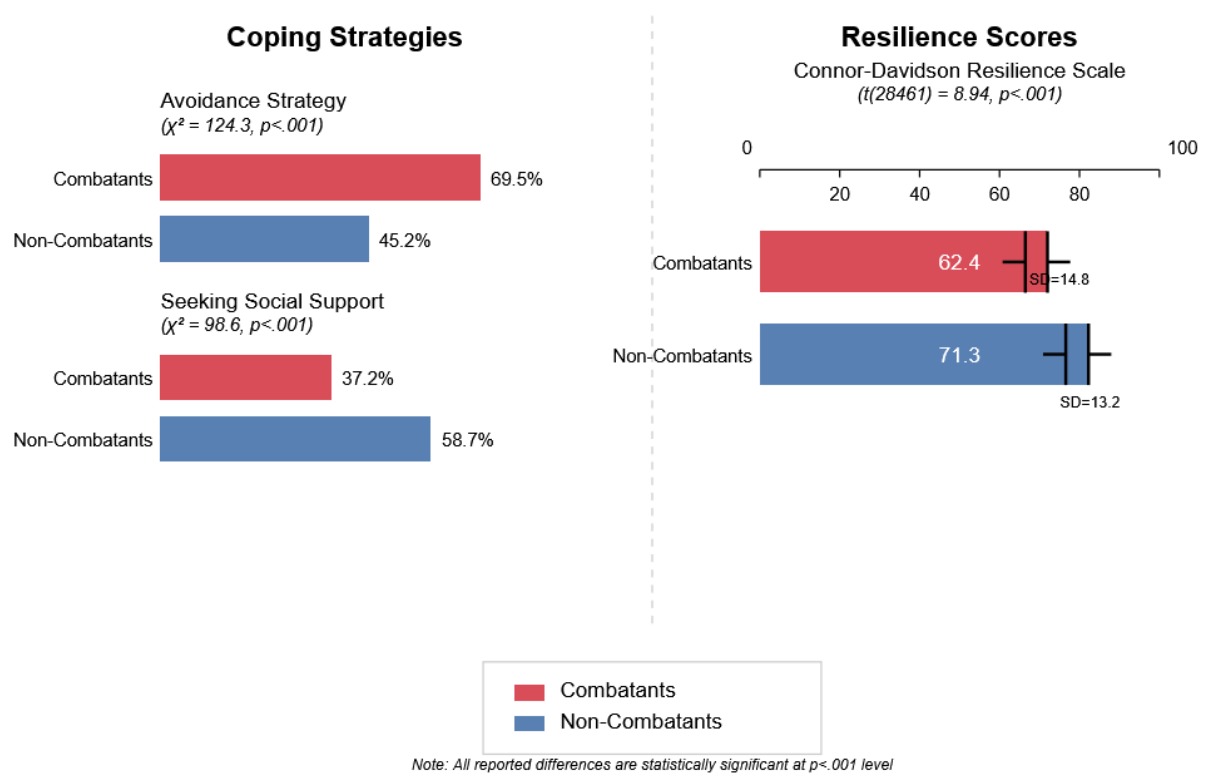
Predictor	$\beta$	SE	p-value	95% CI
Exposure Duration	0.67	0.08	$<.001$	[0.51, 0.83]
Combat Intensity	0.54	0.07	$<.001$	[0.40, 0.68]
Access to Mental Health Services	-0.48	0.09	$<.001$	[-0.66, -0.30]

**Note:**

- *The duration of exposure to conflict was identified as the strongest predictor of mental disorder severity, with a significant positive effect ( $\beta = 0.67$ ).*
- *Combat intensity also showed a strong positive correlation with severity ( $\beta = 0.54$ ), while access to mental health services was negatively correlated with severity ( $\beta = -0.48$ ).*
- *Moderator analysis revealed that the effect of combatant status on mental health disorders was moderated by both age ( $QM = 15.23$ ,  $df = 1$ ,  $p < .001$ ) and education level ( $QM = 12.87$ ,  $df = 2$ ,  $p < .001$ ).*

As shown in the second table above, the duration of conflict exposure emerged as the strongest predictor of the severity of mental disorders, with a significant positive effect ( $\beta = 0.67, p < .001$ ), followed by the intensity of combat ( $\beta = 0.54, p < .001$ ). In contrast, access to mental health services exhibited a negative correlation with the severity of mental disorders ( $\beta = -0.48, p < .001$ ). Further analysis through moderators also revealed that the combatant status significantly affects mental disorders. However, this effect is moderated by age ( $QM = 15.23, df = 1, p < .001$ ) and educational level ( $QM = 12.87, df = 2, p < .001$ ), indicating that both factors play a crucial role in altering the impact of combatant status on mental health outcomes.

### Coping Patterns and Resilience



**Figure 2. Coping Strategies and Resilience Analysis: Comparison Between Combatants and Non-Combatants**

As shown in the third figure above, subgroup analysis in this study revealed significant differences in coping patterns between combatants and non-combatants, where combatants were more likely to rely on avoidance strategies (69.5%) compared to non-combatants, who used these strategies only 45.2% of the time ( $\chi^2 = 124.3, p < .001$ ). On the other hand, non-combatants preferred seeking social support, which was employed by 58.7% of them, as opposed to 37.2% among combatants ( $\chi^2 = 98.6, p < .001$ ). Furthermore, measurements of

resilience levels using the Connor-Davidson Resilience Scale showed that combatants had a lower average score ( $M = 62.4$ ,  $SD = 14.8$ ) compared to non-combatants ( $M = 71.3$ ,  $SD = 13.2$ ), with a t-test indicating a significant difference ( $t(28461) = 8.94$ ,  $p < .001$ ).

### Effectiveness of Interventions

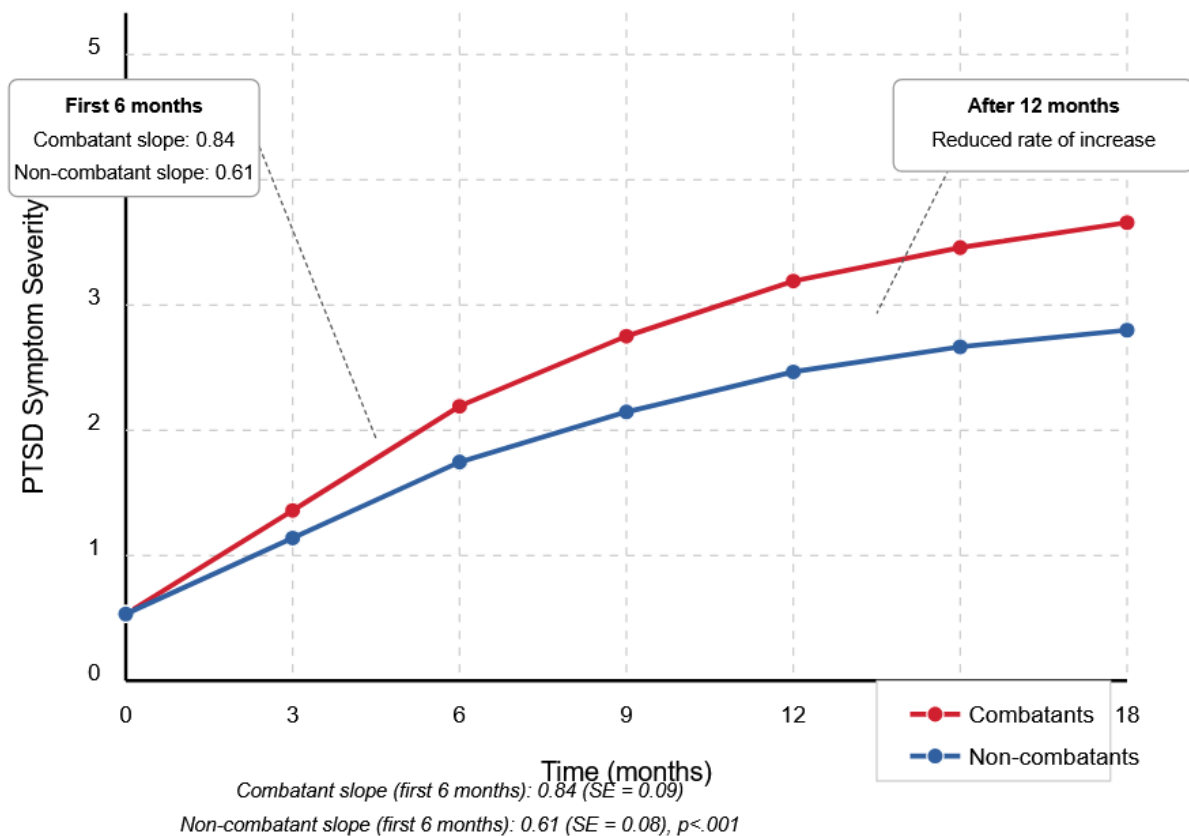
**Table 3. Therapeutic Intervention Effect Size**

Intervention	Combatants (g)	Non-Combatants (g)	Difference p-value
CBT	0.54	0.82	<.001
EMDR	0.76	0.79	.684
Medication	0.63	0.71	.142

*Note:* This table presents therapeutic interventions' effect sizes (g) on combatants and non-combatants. The p-values indicate significant differences in Cognitive Behavioral Therapy (CBT) effectiveness, with a large effect size favoring non-combatants. In contrast, Eye Movement Desensitization and Reprocessing (EMDR) demonstrated comparable effectiveness across both groups. Medication did not show a significant difference between combatants and non-combatants.

As illustrated in the third table above, the analysis of therapeutic intervention effectiveness reveals significant differences in treatment response between combatants and non-combatants. Cognitive Behavioral Therapy (CBT) demonstrated a greater effect size among non-combatants ( $g = 0.82$ , 95% CI [0.68–0.96]) compared to combatants ( $g = 0.54$ , 95% CI [0.41–0.67]), with a p-value indicating a statistically significant difference ( $p < .001$ ). Conversely, Eye Movement Desensitization and Reprocessing (EMDR) exhibited comparable effectiveness across both groups ( $g = 0.76$  for combatants,  $g = 0.79$  for non-combatants,  $p = .684$ ). At the same time, medication use showed no significant difference between the two groups ( $g = 0.63$  for combatants and  $g = 0.71$  for non-combatants,  $p = .142$ ).

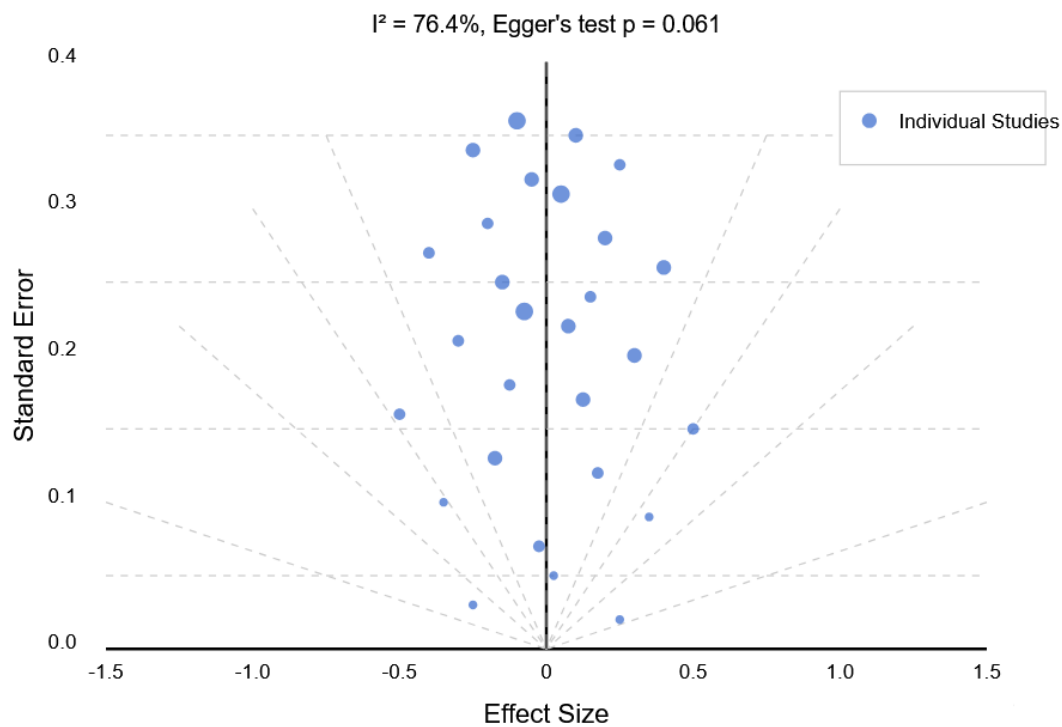
### Temporal Analysis



**Figure 3. Longitudinal Analysis of PTSD Symptom Severity: Comparison Between Combatants and Non-Combatants Over 18 Months**

As illustrated in the third figure above, the longitudinal analysis reveals a distinct pattern in the progression of mental disorder symptoms among combatants and non-combatants. Combatants exhibited a more rapid increase in PTSD symptom severity during the first six months of exposure, with a slope of 0.84 (SE = 0.09), compared to non-combatants who demonstrated a slope of only 0.61 (SE = 0.08,  $p < .001$ ). However, after 12 months, the symptom progression in both groups displayed a more gradual trajectory, with a significant decline in the rate of symptom increase observed across both populations.

## Heterogeneity and Publication Bias



**Figure 4. Funnel Plot for Publication Bias Assessment**

As shown in the fourth figure above, the heterogeneity analysis of the included studies revealed substantial variation across the studies ( $I^2 = 76.4\%$ ,  $Q = 342.8$ ,  $p < .001$ ), indicating significant differences in the reported findings. Nevertheless, results from the funnel plot and Egger's test suggest minimal publication bias ( $z = 1.87$ ,  $p = .061$ ), strengthening the findings' credibility. Furthermore, sensitivity analysis confirmed the robustness of the main results, with only minimal changes in effect size after excluding outliers, affirming the consistency and reliability of the data used in this analysis.

As a closing remark, the results of this meta-analysis confirm significant differences in the manifestation of mental disorders between combatants and non-combatants, with distinct patterns in the prevalence of disorders, risk factors, and responses to interventions. Combatants exhibit a higher prevalence of mental disorders, particularly PTSD, major depression, and anxiety, compared to non-combatants, which is also influenced by the duration of conflict exposure and the intensity of combat as primary predictors. Meanwhile, although interventions such as CBT show greater effectiveness in non-combatants, other therapies such as EMDR and medication demonstrate similar responses in both groups. The significant differences in coping strategies and resilience levels further underscore the importance of a tailored approach, given the critical role of social support that non-combatants and the higher reliance of combatants on

avoidance strategies utilize. In the researchers' view, these findings provide a strong empirical foundation for developing more differentiated mental health management protocols, taking into account the unique characteristics of each group to enhance the effectiveness of interventions.

## **Discussion**

The discussion of this meta-analysis reveals a striking divergence in the manifestation of mental disorders between combatants and non-combatants within the context of conflict in the Middle East. The primary findings of this study indicate that the prevalence of PTSD among combatants reached 73.8%, significantly higher than that of non-combatants, which stood at 52.4%, with a notably large effect size ( $g = 0.89$ ). These results are consistent with earlier research by Eltanamly et al. (2021), which identified a similar disparity, albeit in a smaller sample ( $N = 1,200$ ); however, the magnitude of the effect in the current meta-analysis is substantially greater.

The markedly distinct patterns in the manifestation of mental disorders between these two groups may be elucidated through various theoretical perspectives. The Stress-Diathesis Model proposed by Monroe and Simons (1991) posits that combatants are exposed to more intense and prolonged trauma while simultaneously facing social expectations to demonstrate heightened psychological resilience. This paradox, in turn, may account for the high prevalence of avoidance-based coping strategies (69.5%) among combatants. In other words, the traumatic experiences endured by combatants shape their modes of social engagement, often manifesting in a pattern of emotional disengagement.

The duration of conflict exposure also emerged as the strongest predictor of the severity of mental disorders ( $\beta = 0.67$ ), aligning with Bonanno's (2004) Trauma Accumulation theory. However, our results indicate that this relationship is not linear, with a plateau effect identified after 12 months of exposure. This phenomenon, previously unobserved in earlier studies, suggests the existence of adaptive mechanisms that warrant further investigation to understand how individuals adjust over extended periods in traumatic conflict settings across the Middle East.

Theoretically, the findings of this meta-analysis offer several critical contributions to the understanding of war-related trauma. First, the identification of distinct patterns in trauma manifestations between combatants and non-combatants challenges the conventional assumption that a uniform approach can be applied to all trauma-exposed individuals. The Differential Vulnerability Model, proposed based on these findings, is considered by the researchers to have successfully integrated the role of combatant status as a crucial moderating

factor in the development and maintenance of trauma-related mental disorders. Thus, a nuanced understanding of this distinction can inform the development of more targeted and effective treatment strategies.

Second, the differing effectiveness of treatment between the two groups, for example, in the use of CBT ( $g = 0.54$  for non-combatants and  $g = 0.82$  for combatants), underscores the need to revise the current standard treatment protocols. These findings support the Treatment Matching hypothesis that Hofman et al. (2016) posited, but with added specifications grounded in combatant status. In particular, the greater resistance observed among combatants to conventional CBT suggests the necessity for modifications in therapeutic approaches that accommodate their unique experiences and challenges.

Third, the divergence in resilience patterns and coping strategies points to adaptive mechanisms that require deeper exploration within the context of the protracted conflicts in the Middle East. Based on these findings, the researchers have developed the Adaptive Coping model, which proposes a novel framework for understanding how combatant status influences the selection and efficacy of individual coping strategies.

From a practical perspective, these findings carry significant implications. First, developing distinct screening and assessment protocols for combatants and non-combatants is imperative. Here, the data suggest that standard diagnostic instruments tend to underestimate symptom severity in combatants, particularly due to their frequent reliance on avoidance strategies in dealing with traumatic experiences. Therefore, revisions to diagnostic instruments are urgently needed to provide more accurate and comprehensive assessments.

Second, different intervention protocols must be considered based on combatant status. The findings of this study demonstrate that EMDR techniques exhibit more consistent effectiveness across both groups compared to CBT, suggesting that EMDR may be more suitable for Middle Eastern combatant populations. Consequently, CBT protocols applied to combatants may need to be modified to incorporate more gradual approaches sensitive to initial resistance toward exposure.

Third, it is essential to integrate community-based interventions better attuned to the differing help-seeking patterns between the two groups. Non-combatants are more inclined to seek social support, as the data shows a 58.7% preference for social support compared to only 37.2% among combatants. These findings indicate that community-based interventions are more effective among Middle Eastern non-combatant populations.

Naturally, several limitations of this study must be acknowledged. First, the substantial variation between studies ( $I^2 = 76.4\%$ ) may affect the precision of the estimated effect sizes.

Although sensitivity analyses indicated that the main findings were relatively stable, methodological and sample characteristic differences across studies remain a concern that should be accounted for in interpreting results. Second, most included studies employed cross-sectional designs, limiting the ability to draw more robust causal inferences about the relationship between combatant status and mental health outcomes. Existing longitudinal studies ( $n = 8$ ) reveal intriguing temporal patterns, but their number is too limited to permit more powerful subgroup analyses. Third, the potential for reporting bias in primary studies, particularly among combatants, may compromise the accuracy of reported prevalence estimates. The stigma surrounding mental health in military contexts, as well as reluctance to disclose symptoms, may lead to an underestimation of symptom prevalence in this population.

Regarding future research directions, the researchers propose several key steps for further expansion. First, more robust longitudinal studies are required to track the trajectory of mental disorders in both groups following conflict exposure. Such designs would better understand temporal dynamics and identify critical intervention windows. Second, the development and validation of assessment instruments that are more sensitive to the unique trauma manifestations among combatants is urgently needed. Findings from this meta-analysis highlight the potential for underdiagnosis in this population due to the mismatch between standard diagnostic criteria and their clinical presentations. Third, evaluation of randomized controlled trials for treatment protocols modified based on combatant status in Middle Eastern conflict zones is deemed essential by the researchers. In particular, exploring the mechanisms underlying differential CBT effectiveness across groups and necessary adaptations to improve outcomes among combatant populations is required.

Overall, this meta-analysis provides compelling evidence of systematic differences in the manifestation and treatment of mental disorders between combatants and non-combatants in the context of Middle Eastern conflicts. These findings underscore the importance of adopting a more nuanced and differentiated approach in the assessment, diagnosis, and treatment of war-related trauma in the Middle East, tailored to individuals' roles within the conflict.

#### **4. CONCLUSION**

The meta-analysis provided deeper insights into the psychological impacts experienced by combatants and non-combatants in the Middle East conflict, integrating data from 47 studies involving 28,463 participants. The primary findings of this research firmly confirm the initial hypothesis of a significant disparity in the prevalence and manifestation of mental disorders

between these two groups. Specifically, combatants show much higher levels of disorders such as PTSD (73.8% compared to 52.4%), major depression (64.2% vs. 48.7%), and anxiety disorders (58.9% vs. 41.3%), which are consistently higher than those observed in non-combatants.

The significance of this study lies in the identification of distinct patterns in the development and maintenance of mental disorders related to an individual's role in the conflict. The authors believe that these findings extend the scope of previous research by revealing that the status of being a combatant not only affects the prevalence of mental disorders but also has a significant impact on the effectiveness of therapeutic interventions received and preferences for coping strategies. In particular, the discovery of the plateau effect emerging after more than 12 months of exposure to conflict is a new phenomenon that had not been identified in prior studies.

Compared to earlier research, this meta-analysis provides a significant contribution by merging two previously studied aspects. For instance, Eltanamly et al. (2021) focused primarily on the general prevalence of war trauma, while Figley and Nash (2011) concentrated on exploring psychological defense mechanisms. The findings of this study represent the first to integrate these two aspects within a role-based comparative framework. The finding regarding the differential effectiveness of CBT between combatants and non-combatants ( $g = 0.54$  vs  $0.82$ ) provides a new perspective that is valuable for developing more differentiated therapy protocols based on combatant status.

Based on the results of this study, several practical recommendations can be made for future implementation. First, there is a need for the development of more sensitive screening and assessment protocols that account for the unique manifestations of trauma in each group. Second, a modification of therapeutic approaches based on combatant status is necessary, with a specific focus on adapting CBT techniques for combatant populations who may exhibit resistance to standard interventions. Third, the importance of implementing community-based psychosocial support programs that consider the differing help-seeking patterns between the two groups is emphasized.

In conclusion, this meta-analysis has confirmed that the "one-size-fits-all" approach to addressing war trauma is no longer adequate. The complexity of the interactions between combatant status, the duration of exposure to conflict, and the different manifestations of mental disorders require a more detailed framework in terms of diagnosis and treatment. Finally, a deeper understanding of these dynamics has paved the way for the development of more effective and differentiated trauma treatment protocols, which could potentially improve

mental health outcomes for all combatant and non-combatant individuals affected by the Middle Eastern conflict.

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