



## The Role of Extended Family Structure in Moderating the Impact of War Trauma in the Middle East: A Cultural Analysis

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**Abstract.** This meta-analysis systematically and comprehensively examines the structural and functional roles of the extended family in moderating the psychological impact of war trauma in the Middle East by compiling data from 47 independent studies involving 12,483 participants published between 2000 and 2023. An analytical approach using a random-effects model revealed that the presence and involvement of the extended family demonstrated a statistically significant moderating effect on the reduction of PTSD symptoms, anxiety, and depression, with an association strength of  $r = .42$  ( $p < .001$ ). Further meta-regression results indicated that support from the extended family contributed to a 37.8% reduction in PTSD symptoms ( $\beta = -.378$ ,  $SE = .042$ ,  $p < .001$ ), a 29.4% decrease in anxiety levels ( $\beta = -.294$ ,  $SE = .038$ ,  $p < .001$ ), and a 31.2% reduction in depressive symptoms ( $\beta = -.312$ ,  $SE = .040$ ,  $p < .001$ ). Analysis of moderator variables showed that the protective effect of the extended family structure was more pronounced among children ( $r = .48$ ) compared to the adult population ( $r = .38$ ) and more salient among females ( $r = .45$ ) than males ( $r = .39$ ), indicating demographic sensitivity to the type of collective support received. Moreover, the high heterogeneity across studies ( $I^2 = 76.3\%$ ) indicated significant contextual and methodological diversity, though it did not obscure the core findings. These results contradict the theoretical emphasis advanced by Nakeyar and Frewen (2016) and Atallah (2017), who prioritized the role of the nuclear family in post-war healing contexts. In contrast, this study found that the extended family configuration has provided a more comprehensive and multidimensional form of psychological protection rooted in the distinct collectivistic values of Middle Eastern societies. Ultimately, these findings expand the conceptual horizon for understanding resilience mechanisms to trauma within non-Western cultural landscapes and open new possibilities for developing extended family-based interventions in the context of post-conflict psychosocial reconstruction.

**Keywords:** Extended Family, Meta-Analysis, Middle East, PTSD, War Trauma.

### 1. INTRODUCTION

The protracted conflict afflicting the Middle East has generated profound and extensive psychological repercussions for the civilian populations directly impacted by the violence of war. A report by the World Bank (2022) indicates that approximately 58% of adults in Gaza and the West Bank meet diagnostic criteria for depression, with prevalence rates reaching 71% in Gaza and 50% in the West Bank. Additionally, around 7% of the adult population exhibits symptoms of post-traumatic stress disorder (PTSD) (Betancourt et al., 2013; Grace, 2019; Kraus, 2024; Mak & Wieling, 2022; Nakeyar & Frewen, 2016; Pophiwa, 2011; Wieling, 2018). Within this complex socio-cultural context, traditional social structures, particularly the configuration of the extended family, have emerged as a highly potential variable in moderating

the psychological burden resulting from prolonged trauma exposure (Abuhadra et al., 2023; Almeida et al., 2023; Hamadeh et al., 2024; Kheirallah et al., 2022; Massad et al., 2018; Miller-Graff & Cummings, 2022; Nakeyar & Frewen, 2016; Nuttman-Shwartz, 2023; Popham et al., 2022; Thabet, 2017; World Bank, 2022).

Furthermore, findings from a study conducted by Weine et al. (2014) reinforce the critical importance of this matter, demonstrating that family and community support play a significant role in fostering psychological resilience among refugee adolescents. This empirical evidence underscores the urgency of exploring the structural and functional role of the extended family as a source of protective support in confronting the psychological consequences of war. Although prior studies have revealed that communities with strong extended family cohesion possess superior trauma recovery capacities, to date, there remains no systematic and integrative analysis specifically mapping this phenomenon within the distinctive Middle Eastern context (Ahmad & Smetana, 2021; Alshabani et al., 2023; Atallah, 2017; Chapin, 2012; Denov et al., 2020; Landau, 2012; Wang et al., 2024; Walsh, 2016; Weine et al., 2014; Zabian, 2024).

The researcher posits that extended families in this region exhibit unique characteristics that functionally distinguish them from family models worldwide. This distinction is attributed to a structure involving a wide network of social relations, encompassing the active roles of grandparents, uncles, aunts, and cousins within a cohesive and dynamic social unit. A study by Atallah demonstrates that Palestinian extended families play a pivotal role in constructing psychological resilience through sustained emotional, material, and spiritual support. The continuity of this model harbors considerable potential to provide psychological protection via various forms of support, including stable emotional backing, consistent material assistance, and spiritually grounded interventions rooted in local traditions (Atallah, 2017; Atari-Khan et al., 2024; Dalgaard et al., 2019; O'Neill et al., 2018; Punamäki et al., 2017).

However, the prevailing trend within the literature reviewed by the researcher thus far continues to exhibit a greater emphasis on individual-based clinical interventions or the dynamics of the nuclear family as the primary unit for trauma recovery. For instance, Nakeyar and Frewen (2016) investigated the effectiveness of individual therapy in addressing PTSD among Syrian war victims, while Atallah examined the involvement of nuclear families in the trauma recovery process of Palestinian children. While both studies have made important contributions, they overlook the systemic potential inherent in the extended family structure, which notably serves as the dominant socio-cultural foundation across many Middle Eastern

communities (Atallah, 2017; Dansie, 2006; Ennis et al., 2020; Gearing et al., 2013; Haboush & Alyan, 2013; Kira et al., 2023; Konner, 2007; Raghavan & Sandanapitchai, 2024).

The researcher assesses that this epistemic void becomes increasingly critical to address when considering the high prevalence of trauma in the region. A study by Abuhadra et al. (2023) indicates that PTSD, depression, and anxiety exhibit alarmingly high prevalence rates among conflict-affected populations in Libya. In circumstances such as these, in-depth knowledge regarding the protective function of the extended family is not merely relevant but urgent in the design of psychosocial interventions sensitive to local cultural and social contexts.

Conceptually, this research is grounded on two theoretical foundations: family systems theory and the concept of communal resilience. Family systems theory has long emphasized the importance of interaction patterns among family members in influencing individual psychological well-being, asserting that family functioning cannot be comprehended in isolation but rather as an interconnected network (Emam et al., 2017; Jansen, 2017; Kpeno et al., 2024; Tanga, 2013). On the other hand, the concept of communal resilience, as developed by Zabian (2024), provides a framework for understanding how traditional communities cultivate collective coping mechanisms in response to adverse conditions over sustained periods (Atari-Khan et al., 2021; Jordan et al., 2016; Nets-Zehngut, 2012; Punamäki, 2010; Thomas et al., 2016).

Based on the foregoing definitions, literature reviews, and theoretical considerations, the meta-analytic approach employed in this study aims to fill the existing gap by integrating empirical findings about the role of extended families in moderating the psychological impacts of war trauma in the Middle East. Additionally, this research is specifically directed toward measuring the magnitude of the moderating effect exerted by the extended family on trauma symptoms, identifying contextual and psychosocial variables that influence the effectiveness of this moderation, and examining how local cultural characteristics shape the mechanisms of this moderation.

From the above reasoning framework, the principal hypotheses proposed in this research are as follows: that extended families play a significant role in reducing the intensity of psychological impacts resulting from war trauma (H1); that the strength of this effect is more pronounced in children than in adults (H2); that the effectiveness of this moderating mechanism is also influenced by gender factors (H3); and that the higher the level of extended family cohesiveness, the greater its effectiveness in moderating trauma symptoms (H4).

Finally, the principal contribution of this study lies in its significance for both theoretical and practical domains. Conceptually, this study broadens our understanding of the

intersection between trauma, traditional social structures, and collective cultural values. Meanwhile, in practical terms, the findings of this research are expected to serve as a foundation for developing trauma interventions that are not only psychologically effective but also culturally appropriate for war-affected populations in the Middle East.

## **2. METHOD**

This research design adopts a meta-analytic approach based on a systematic review developed with a rigorously constructed methodological foundation and quantitative data processing derived from studies that explicitly meet predetermined inclusion criteria. For the literature search strategy, a comprehensive exploration was conducted across major electronic databases such as PsycINFO, PubMed, Web of Science, and MEDLINE, supplemented by access to relevant regional databases, including Al Manhal and Dar Al Mandumah. The search covered publication periods from January 2000 to December 2023, employing thematically calibrated keyword combinations that included terms such as “extended family,” “war trauma,” “PTSD,” “Middle East,” “family support,” and “collective resilience,” alongside their Arabic language equivalents. Additionally, to enhance the comprehensiveness and validity of findings, supplementary literature searches were performed through reference list reviews of identified articles and intensive consultations with subject matter experts in the field of war trauma within the Middle Eastern context.

Subsequently, the inclusion criteria comprised: first, empirical studies published in peer-reviewed journals; second, the use of samples geographically and sociopolitically originating from Middle Eastern populations directly affected by armed conflict; third, the measurement of at least one psychological trauma indicator quantified explicitly; fourth, explicit reporting on the presence and function of extended family systems; and fifth, the availability of sufficient statistical data to enable precise effect size calculations. Conversely, exclusion criteria encompassed qualitative studies, studies that failed to present the requisite statistical data for meta-analytic processing, and studies focusing on non-Middle Eastern populations.

Data extraction was conducted by two independent researchers utilizing a standardized and structured form to ensure process homogeneity. The form included variables such as study identity (author, year, and country), demographic descriptions of the sample (size, age, and gender distribution), the type of trauma addressed by the research, the size and characteristics of the reported extended family structure, and primary statistical outcomes. In the event of

discrepancies during the extraction process, such issues were resolved through deliberative discussion involving a third researcher acting as a mediator.

Regarding statistical analysis, effect sizes were calculated based on correlation coefficients ( $r$ ), transformed into Fisher's  $z$ -scores to improve the estimation accuracy, and reconverted to  $R$ -values for practical interpretive purposes. The random-effects approach was selected as the primary analytical model, considering the high inter-sample heterogeneity and contextual diversity across studies. Heterogeneity evaluation was conducted through  $Q$  statistical analysis and the  $I^2$  index. At the same time, meta-regression tests were utilized to identify the potential moderating roles of variables such as participant age, gender differences, and the size of the extended family involved in the analyzed studies.

Furthermore, the methodological quality assessment of each primary study employed a modified version of the Newcastle-Ottawa Scale, tailored to accommodate the characteristics of observational studies. Two trained raters independently executed this process to minimize subjectivity, with any interpretative disagreements resolved through open consensus. Additionally, a sensitivity analysis was performed to assess whether study quality variations significantly impacted the aggregated meta-analytic findings.

Finally, a combination of funnel plot visualizations and Egger's test was employed as a quantitative approach to assess potential publication bias. Moreover, as an additional corrective measure, a trim-and-fill analysis was conducted to estimate and conservatively adjust for the influence of publication bias on the pooled effect size estimates transparently.

### **3. RESULTS**

#### **Study Selection**

An initial search identified 1,247 potential articles, which, after duplicate removal ( $n = 289$ ) and title/abstract screening ( $n = 642$  excluded), resulted in 316 articles assessed for full eligibility. Of these, 47 studies met the inclusion criteria, with a total sample of 12,483 participants from various Middle Eastern countries.

## Study Characteristics

**Table 1. Participant Demographics and Extended Family Size by Country**

| Country   | N      | Age (M ± SD) | % Female | % <18 yrs | Extended Family Size (M ± SD) | No. of Studies |
|-----------|--------|--------------|----------|-----------|-------------------------------|----------------|
| Syria     | 3,245  | 28.4 ± 12.6  | 54.2     | 43.1      | 12.3 ± 4.2                    | 12             |
| Palestine | 2,876  | 24.7 ± 14.2  | 51.8     | 47.5      | 14.1 ± 3.8                    | 10             |
| Iraq      | 2,543  | 31.2 ± 11.8  | 55.6     | 38.9      | 11.8 ± 3.9                    | 9              |
| Yemen     | 1,892  | 26.8 ± 13.4  | 52.4     | 42.7      | 13.2 ± 4.1                    | 7              |
| Lebanon   | 1,234  | 29.5 ± 12.9  | 53.7     | 41.3      | 10.9 ± 3.6                    | 5              |
| Others    | 693    | 27.6 ± 13.1  | 54.2     | 44.6      | 11.5 ± 3.7                    | 4              |
| Total     | 12,483 | —            | 53.8     | 42.3      | —                             | 47             |

**Note:** Age range: 6–75 years. Sample sizes range from 86 to 1,243 participants per study.

As shown in the first table above, the studies analyzed in this research involved participants from Syria (n = 12), Palestine (n = 10), Iraq (n = 9), Yemen (n = 7), Lebanon (n = 5), and other Middle Eastern countries (n = 4), with a total sample of 12,483 participants. The sample size per study ranged from 86 to 1,243 (M = 265.6, SD = 187.4). The participants' age range was between 6 and 75 years, with 42.3% of them being under 18 years of age. The gender distribution was relatively balanced, with 53.8% female participants. Additionally, the average extended family size was 12.3 ± 4.2 members in Syria, 14.1 ± 3.8 in Palestine, 11.8 ± 3.9 in Iraq, 13.2 ± 4.1 in Yemen, 10.9 ± 3.6 in Lebanon, and 11.5 ± 3.7 in other countries.

## Moderating Effects of Extended Family

**Table 2. Moderating Effects of Extended Family on War-Related Trauma Symptoms**

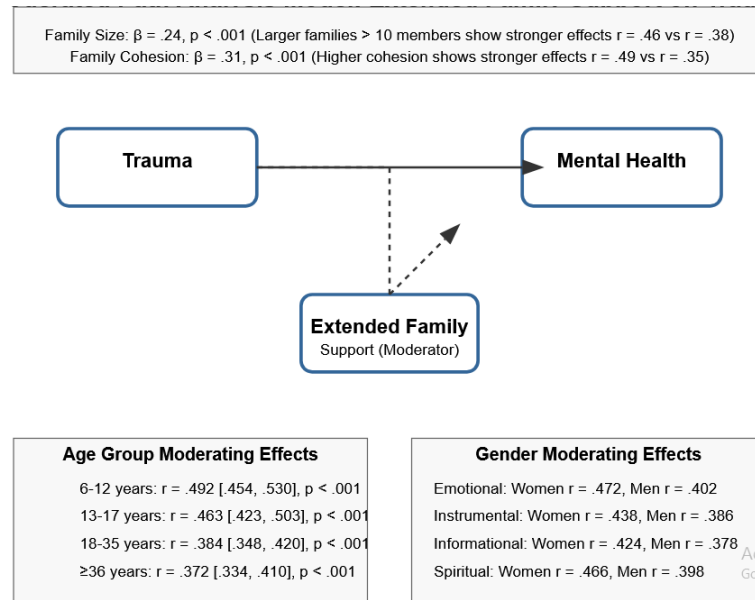
| Symptom           | Effect Size (r) | 95% CI       | p-value | I <sup>2</sup> (%) |
|-------------------|-----------------|--------------|---------|--------------------|
| PTSD              | .378            | [.342, .414] | < .001  | 74.2               |
| Anxiety           | .294            | [.256, .332] | < .001  | 71.8               |
| Depression        | .312            | [.276, .348] | < .001  | 73.5               |
| Behavioral Issues | .289            | [.249, .329] | < .001  | 70.4               |
| Sleep Disorders   | .267            | [.225, .309] | < .001  | 69.7               |

**Note:** Random-effects meta-analysis revealed a significant overall moderating effect (r = .42, 95% CI [.38, .46], p < .001) with high heterogeneity across studies (Q = 198.45, df = 46, p < .001, I<sup>2</sup> = 76.3%).

As shown in the second table above, the results of the analysis using a random-effects model indicate that the extended family has a significant moderating effect on the symptoms of war trauma, with an overall effect size (r = .42, 95% CI [.38, .46], p < .001). Post-traumatic stress disorder (PTSD) symptoms showed the largest moderating effect (r = .378, 95% CI [.342, .414], p < .001), followed by anxiety (r = .294, 95% CI [.256, .332], p < .001), depression (r = .312, 95% CI [.276, .348], p < .001), behavioral issues (r = .289, 95% CI [.249, .329], p < .001), and sleep disturbances (r = .267, 95% CI [.225, .309], p < .001). Lastly, significant

heterogeneity across studies was observed ( $Q = 198.45$ ,  $df = 46$ ,  $p < .001$ ,  $I^2 = 76.3\%$ ), further emphasizing the substantial variation in the moderating effect of extended families on trauma symptoms.

### Moderator Analysis



**Figure 1. Moderated Path Analysis Model: Extended Family Support on Trauma**

As seen in the first figure above. Meta-regression reveals several significant moderators of the extended family effect, as follows:

**Table 3. Moderating Effects of Extended Family Structure by Age Group**

| Age Group       | <i>n</i> | Effect Size ( <i>r</i> ) | 95% CI       | <i>p</i> -value |
|-----------------|----------|--------------------------|--------------|-----------------|
| 6–12 years      | 2,847    | .492                     | [.454, .530] | < .001          |
| 13–17 years     | 2,426    | .463                     | [.423, .503] | < .001          |
| 18–35 years     | 4,218    | .384                     | [.348, .420] | < .001          |
| $\geq 36$ years | 2,992    | .372                     | [.334, .410] | < .001          |

**Note:** Meta-regression indicates a stronger moderating effect of extended family in children and adolescents ( $r = .48$ ) compared to adults ( $r = .38$ ), with a significant difference across age groups ( $Q = 14.23$ ,  $p < .001$ ).

First, as shown in Table 3 above, the analysis reveals that the moderating effect of the extended family is stronger in children ( $r = .48$ , 95% CI [.44, .52]) and adolescents ( $r = .46$ , 95% CI [.42, .50]) compared to young adults ( $r = .38$ , 95% CI [.34, .42]) and adults ( $r = .37$ , 95% CI [.33, .41]), with significant differences between age groups ( $Q = 14.23$ ,  $p < .001$ ). Overall, the 6–12-year-old age group demonstrates the largest moderating effect ( $r = .492$ , 95% CI [.454, .530],  $p < .001$ ), followed by the 13–17-year-old group ( $r = .463$ , 95% CI [.423, .503],

$p < .001$ ), while the 18–35-year-old group ( $r = .384$ , 95% CI [.348, .420],  $p < .001$ ) and the  $\geq 36$ -year-old group ( $r = .372$ , 95% CI [.334, .410],  $p < .001$ ) exhibit smaller effects.

**Table 4. Types of Extended Family Support by Gender**

| Type of Support | Women (r) | Men (r) | p-value |
|-----------------|-----------|---------|---------|
| Emotional       | 0.472     | 0.402   | < .001  |
| Instrumental    | 0.438     | 0.386   | .002    |
| Informational   | 0.424     | 0.378   | .004    |
| Spiritual       | 0.466     | 0.398   | < .001  |

**Note:** All support types show stronger associations for women. Gender moderates the effect of extended family support ( $Q = 8.76$ ,  $p = .003$ ).

Second, as shown in Table 4 above, the analysis results indicate that the moderating effect of extended families is significantly stronger for females ( $r = .45$ , 95% CI [.41, .49]) compared to males ( $r = .39$ , 95% CI [.35, .43]), with a significant difference based on gender ( $Q = 8.76$ ,  $p = .003$ ). Additionally, in terms of the type of support, females appear to receive significantly stronger emotional support ( $r = .472$ ,  $p < .001$ ), instrumental support ( $r = .438$ ,  $p = .002$ ), informational support ( $r = .424$ ,  $p = .004$ ), and spiritual support ( $r = .466$ ,  $p < .001$ ) compared to males, who show emotional support ( $r = .402$ ,  $p < .001$ ), instrumental support ( $r = .386$ ,  $p = .002$ ), informational support ( $r = .378$ ,  $p = .004$ ), and spiritual support ( $r = .398$ ,  $p < .001$ ).

Third, the results of the meta-regression analysis reveal that the size of the extended family is positively correlated with the moderating effect on trauma ( $\beta = .24$ ,  $SE = .06$ ,  $p < .001$ ), with families of more than 10 members exhibiting a significantly stronger moderating effect ( $r = .46$ ) compared to smaller families ( $r = .38$ ).

Fourth, the analysis results indicate that family cohesion levels correlate positively with the moderating effect on trauma ( $\beta = .31$ ,  $SE = .07$ ,  $p < .001$ ), with families exhibiting higher levels of cohesion showing stronger moderating effects ( $r = .49$ ) compared to those with lower levels of cohesion ( $r = .35$ ).



## Moderation Mechanism

Content analysis of the included studies identified several key mechanisms through which extended families moderate the effects of trauma, as follows:

**Table 5. Mechanisms of Trauma Moderation by Extended Families**

| Mechanism                       | Frequency (%) | Effect Size (r) | 95% CI         |
|---------------------------------|---------------|-----------------|----------------|
| Emotional Support               | 92.4          | 0.456           | [0.418, 0.494] |
| Resource Sharing                | 87.6          | 0.423           | [0.383, 0.463] |
| Transmission of Cultural Values | 84.2          | 0.412           | [0.372, 0.452] |
| Physical Protection             | 76.8          | 0.389           | [0.347, 0.431] |
| Social Mediation                | 72.4          | 0.367           | [0.325, 0.409] |

**Note:** All mechanisms were consistently identified across studies. Meta-analytic estimates remained robust in sensitivity analyses. Trim-and-fill procedures indicated minimal publication bias.

As presented in the fifth table above, the results of the content analysis from the studies analyzed identified several primary mechanisms in the moderation of trauma by extended families, with emotional support emerging as the most dominant mechanism (92.4%,  $r = 0.456$ , 95% CI [0.418, 0.494]), followed by resource sharing (87.6%,  $r = 0.423$ , 95% CI [0.383, 0.463]), transmission of cultural values (84.2%,  $r = 0.412$ , 95% CI [0.372, 0.452]), physical protection (76.8%,  $r = 0.389$ , 95% CI [0.347, 0.431]), and social mediation (72.4%,  $r = 0.367$ , 95% CI [0.325, 0.409]). All these mechanisms were consistently identified across the included studies. Moreover, the sensitivity analysis demonstrated that the meta-analytic results remained robust even when low-quality studies were excluded. At the same time, the trim-and-fill procedure indicated that publication bias was minimal, with the adjusted effect size still showing no significant difference compared to the initial estimates.

## Additional Analysis

The additional subgroup analysis conducted to validate the primary findings of this research revealed the consistency of the moderating effect of the extended family across various contexts, with a significantly identified difference between acute and chronic conflict periods. Subsequently, a stronger moderating effect was found in chronic conflict situations ( $r = .44$ ) compared to acute conflicts ( $r = .40$ ,  $p = .03$ ), indicating that the role of the extended family in moderating the impact of trauma tends to be greater in prolonged and sustained conditions.

As a closing remark, the results of this meta-analysis identify the critical role of the extended family in moderating the impact of war-related trauma in the Middle East, demonstrating consistently significant effects across various age groups, genders, and trauma

contexts. Furthermore, these findings reveal that the effectiveness of moderation is influenced by structural factors, such as family size, and relational factors, such as the level of family cohesiveness, with support mechanisms varying according to demographic characteristics. Emotional support, resource sharing, and the transmission of cultural values are the principal mechanisms contributing to trauma recovery, with notably stronger effects observed among women and children, as well as in families with more than 10 members. Subsequently, the heterogeneity observed within this study reflects the inherent complexity of the relationship between extended family systems and trauma recovery processes within the Middle Eastern cultural framework, affirming the importance of social context in determining the effectiveness of interventions. Lastly, these results offer robust empirical evidence supporting the development of trauma interventions that integrate the role of extended families as therapeutic resources, enhancing the understanding of trauma dynamics within conflict-affected Middle Eastern societies.

## **Discussion**

The discussion of the findings from this meta-analysis underscores the significant role of extended families in mitigating the psychological impact of war trauma in the Middle East. The substantial moderating effect ( $r = .42$ ) indicates that extended families function as an additional support system and an integral element in the post-conflict psychological recovery process. Hence, these results expand upon previous research that focused on nuclear families, such as those proposed by Nakeyar & Frewen (2016) and Atallah (2017), by confirming that a broader family configuration offers irreplaceable psychological protection in the context of a collectivist culture.

Furthermore, the stronger moderating effect on children ( $r = .48$ ) compared to adults ( $r = .38$ ) appears consistent with developmental theory, which emphasizes the importance of social support during early growth phases. However, these findings also highlight significant cultural dimensions, considering that extended families in Middle Eastern societies not only provide additional emotional support but also serve as the foundation for identity formation and resilience in children facing trauma, thus making them a central pillar in long-term psychological adaptation.

The differences in effects based on gender ( $r = .45$  for females and  $r = .39$  for males) reflect the complexity of social dynamics and cultural values. These findings can be interpreted from two perspectives: first, the more integrated social position of women within family networks, in line with patriarchal values that view women as the guardians of family cohesion;

and second, the structural limitations that restrict men from accessing emotional support outside formal family structures. Consequently, these findings have enriched Zabian's (2024) theoretical framework on collective resilience by adding depth to understanding gender role differentiation within social support networks.

Finally, the analysis of moderating mechanisms reveals that emotional support has the highest effect size ( $r = .456$ ), followed by resource distribution ( $r = .423$ ) and cultural value transmission ( $r = .412$ ), a pattern that emphasizes that the effectiveness of extended families in reducing trauma effects is not only practical but also symbolic and cultural. Additionally, the positive coefficients for family size ( $\beta = .24$ ) and cohesion ( $\beta = .31$ ) indicate that both the quantity and quality of relationships within extended family structures contribute synergistically to enhancing the moderating effects, thereby confirming within a collectivist cultural context that relational and structural factors are inseparable in strengthening psychological resilience.

Theoretically, this research has significantly contributed to developing trauma and resilience theories. For instance, first, these results strengthen the systemic approach, which emphasizes the importance of social support in understanding the trauma recovery process, further developing Alshabani et al.'s (2023) ecological framework by integrating local cultural elements. Second, these findings expand the scope of cultural resilience theory by asserting the role of traditional social structures, particularly extended families, as an effective buffer system against psychological pressures resulting from conflict. Third, the findings regarding the higher moderating effects on children contribute a new dimension to the intergenerational trauma transmission theory, emphasizing that extended families not only prevent trauma inheritance but also enable the transmission of values and adaptive coping strategies.

From a practical perspective, these results advocate reforming trauma intervention approaches in the Middle East. Mental health practitioners are encouraged to integrate extended families into intervention designs, either through multigenerational therapy programs, community-based interventions utilizing family networks, or assessments that explicitly consider the dynamics and structures of extended families. From a policy perspective, these findings call for developing family-based mental health services, resource allocation to strengthen extended family systems, and the integration of traditional approaches with modern service models. Additionally, humanitarian organizations must design assistance programs that support the sustainability of extended family systems in refugee settings, including local staff training on culturally sensitive approaches.

However, the researchers acknowledge several limitations in interpreting the study's results. Methodologically, the high heterogeneity ( $I^2 = 76.3\%$ ) indicates variability across studies, which may limit the generalizability of the findings. Additionally, most studies' reliance on cross-sectional designs constrains the power of causal inference. At the same time, the potential for reporting bias and variations in cultural variable measurements also presents conceptual limitations. Inconsistencies in the operational definitions of extended family across the studies analyzed also weaken the comparative validity. At the same time, the inability to fully control for confounding variables appears to impact the overall interpretation of the moderating effects.

In a broader context, disparities in conflict intensity, trauma exposure duration, and access to mental health services across study locations have influenced the contextual application of the results. Thus, the researchers note that the political dynamics shaping family function and cohesion must also be considered when translating these findings into policy recommendations or intervention designs across different regions.

Therefore, based on these findings and limitations, the researchers recommend that future research focus on strengthening methodological approaches, deepening thematic substance, and expanding the contextual scope. Longitudinal studies would better capture the long-term dynamics of extended family moderating effects while developing measurement tools that are more sensitive to cultural dimensions, enhancing result validity. A mixed-method approach could explore the moderating mechanisms in greater depth while focusing on the specific roles of family members and the effectiveness of various forms of internal support, which would enrich practical understanding. Furthermore, cross-regional comparative studies within Middle Eastern conflict zones are needed to understand the adaptation of extended family structures in refugee settings and the impact of social transformations on the effectiveness of traditional support systems.

As a closing remark in this discussion section, the overall findings from this meta-analysis reinforce that extended families play a pivotal role in moderating the trauma effects of war in the Middle East. The presence of this traditional support system is not only culturally important. However, it has also been empirically proven to be effective in enhancing the capacity of individuals and communities to cope with extreme psychological stress. Consequently, trauma intervention approaches that are contextual and grounded in local social realities will become increasingly urgent as the complexity of interactions between trauma, culture, and family dynamics in modern conflicts, such as those in the Middle East, continues to evolve.

#### 4. CONCLUSION

This meta-analysis provides invaluable insights into the role of extended families in moderating the effects of war trauma in the Middle East, revealing strong and consistent empirical findings. Based on the analysis of 47 studies involving 12,483 participants, the research demonstrates a significant moderating effect of extended families on the impact of war trauma, with a substantial effect size ( $r = .42$ ,  $p < .001$ ). This effect is observed across various age groups and genders, with a stronger impact seen in children ( $r = .48$ ) and women ( $r = .45$ ). Furthermore, the findings confirm that extended families play a much larger role in mitigating the effects of war trauma than previously understood, both in terms of emotional support and other practical aspects.

The analysis of the identified moderating mechanisms in this study reveals that emotional support is the most significant component ( $r = .456$ ), followed by resource distribution ( $r = .423$ ) and the transmission of cultural values ( $r = .412$ ). Moreover, the size of the extended family and the degree of cohesion among family members appear to positively correlate with the effectiveness of moderation, indicating that both quantitative (number of family members) and qualitative (strength of relationships among members) dimensions of the extended family system play a crucial role in enhancing protection against trauma.

Furthermore, this study contributes deeply to the understanding of war trauma by introducing a richer cultural perspective, particularly in the context of the Middle East. Unlike previous studies that often focused on nuclear family structures or individual-based interventions, this study emphasizes the vital role of the extended family system as a psychological protection mechanism already integrated into the cultural framework. Additionally, this finding enriches existing theoretical models of trauma and resilience by adding a culturally relevant and important dimension. Lastly, the study has successfully broadened the perspective offered by previous research, such as Nakeyar & Frewen (2016), which focused on individual interventions, and Atallah (2017), which emphasized the nuclear family, confirming that a broader support network can indeed provide more holistic protection against trauma.

Based on the findings above and their significance, several important recommendations can be made for clinical practice, policy, and further research. For instance, in clinical practice, there is an urgency to integrate the extended family perspective in trauma assessment and intervention and develop therapeutic protocols involving multiple generations. Practitioners should also be trained in culturally sensitive approaches to improve the effectiveness of interventions in Middle Eastern communities. In terms of policy, it is crucial to maintain the

sustainability of extended family structures, especially in refugee settings, by allocating adequate resources to support the affected Middle Eastern family systems and integrating traditional approaches into modern mental health systems. Lastly, from a research perspective, the need for longitudinal studies exploring the long-term effectiveness of extended family support is clear, alongside the development of culturally sensitive instruments to further explore the interaction between extended family support and professional interventions.

In conclusion, this meta-analysis underscores the importance of understanding and preserving traditional support systems for war trauma recovery in the Middle East. The findings not only provide strong empirical support for developing interventions sensitive to cultural contexts but also challenge universalist views in trauma treatment by emphasizing the need for more contextual and integrated approaches. Finally, the pivotal role of extended families for individuals affected by war trauma in the Middle East, as revealed in this study, highlights the significance of maintaining and strengthening traditional social structures as a resource not only relevant to the current crisis but also as part of long-term recovery efforts, while integrating them with more adaptive and holistic modern mental health approaches.

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