Corona: Jurnal Ilmu Kesehatan Umum, Psikolog, Keperawatan dan Kebidanan
Volume.3, Nomor.2 Juni 2025
e-ISSN: 3031-0172 ; p-ISSN: 3031-0180, Hal 239-260
DOI : https://doi.org/10.61132/corona.v3i12.1274
Available Online at : https://journal.arikesi.or.id/index.php/Corona

Integration of Indigenous Healing Approaches and Western Psychotherapy in Addressing War Trauma Post-Arab Spring

M. Agung Rahmadi [1*], Helsa Nasution [2], Luthfiah Mawar [3], Nurzahara Sihombing [4]
[1] Universitas Islam Negeri Syarif Hidayatullah Jakarta, Indonesia
[2] Universitas Negeri Padang, Indonesia
[3] Universitas Sumatera Utara, Indonesia
[4] SD Negeri 107396 Paluh Merbau, Indonesia
Email: m.agung_rahmadi19@mhs.uinjkt.ac.id [1], helsanasution95@gmail.com [2], luthfiahmawar@students.usu.ac.id [3], nurzahara.sihombing47@admin.sd.belajar.id [4],

*Corresponding Author: m.agung_rahmadi19@mhs.uinjkt.ac.id **

Abstract: *This study systematically evaluates the effectiveness of integrating indigenous healing approaches with Western psychotherapy in addressing psychological trauma experienced by populations affected by war in the aftermath of the Arab Spring. Utilizing a systematic review methodology, the analysis encompasses 47 independent studies involving 4,382 participants, published between 2011 and 2024. Meta-analytic results indicate that the combined application of both approaches yields a significantly higher effect size (d=0.86, 95% CI [0.72, 1.01]) compared to the individual application of either indigenous healing (d=0.51) or Western psychotherapy (d=0.63). Further moderator analysis reveals that the highest therapeutic effectiveness is achieved through interventions that integrate traditional healing rituals with Cognitive Behavioral Therapy techniques (β=0.41, p<.001) and Eye Movement Desensitization and Reprocessing (β=0.38, p<.001). Moreover, Indigenous healing demonstrates a significantly targeted contribution to the recovery of collective identity (r=0.72, p<.001) and enhancement of social reintegration capacity (r=0.68, p<.001). In contrast, Western psychotherapy proves more effective in reducing the intensity of post-traumatic stress disorder (PTSD) symptoms (r=-0.59, p<.001). These findings substantially expand upon previous research by Okasha et al. (2012) and Erickson & Al-Tamimi (2001), which primarily focused on the isolated effectiveness of each approach. The empirical evidence presented in this study supports the conclusion that an integrated therapeutic model yields more comprehensive and sustainable clinical benefits for survivors of collective trauma resulting from armed conflict. Finally, the core novelty of this research lies in its successful identification of specific mechanisms that effectively facilitate the synergy between indigenous healing and Western psychotherapy in the context of complex post-conflict mass trauma following the Arab Spring.*

Keywords: *Arab Spring, indigenous healing, systematic review, therapeutic integration, war trauma, Western psychotherapy*

1. INTRODUCTION

The Arab Spring, which erupted at the close of 2010, triggered a protracted series of armed conflicts across numerous countries in the Middle East and North Africa, leaving profound psychosocial trauma in its wake for millions of affected inhabitants. According to a report by Syria Relief (2021), more than 75% of Syrian refugees exhibited symptoms of post-traumatic stress disorder (PTSD), with 84% of respondents experiencing at least seven out of the fifteen recognized PTSD symptoms. This figure significantly surpasses the global average for conflict zones, which hovers around 3.9%, as reported in the World Mental Health Surveys by Koenen et al. (2017), underscoring the immense psychological burden communities bear in the post-Arab Spring landscape. The trauma experienced by these populations is not solely

Received: Maret 10, 2025; Revised: Maret 26, 2025; Accepted: April 13, 2025; Published: April 16, 2025

individual in nature; it is deeply rooted in collective dimensions that are intricately interwoven with the socio-cultural fabric of Arab society, where shared identity and social solidarity constitute central pillars of daily life. A study conducted by Acarturk et al. (2018) on Syrian refugees in Turkey found that 83.4% of respondents experienced PTSD, reaffirming the critical importance of culturally grounded intervention approaches. These findings simultaneously raise essential questions concerning the relevance and efficacy of conventional Western psychotherapeutic models, which primarily emphasize individual recovery, in addressing forms of trauma that are inherently collective and profoundly shaped by cultural determinants.

On the other hand, various indigenous healing practices, long embedded within Arab cultural traditions, demonstrate significant therapeutic potential in restoring collective trauma induced by armed conflict. A regional survey reported by Okasha et al. (2012) across several Arab countries affected by conflict revealed that approximately 70% of survivors preferred to seek assistance from traditional healers and religious leaders rather than accessing formal mental health services rooted in Western methodologies. This reality underscores the pressing need to develop intervention strategies to bridge indigenous wisdom and modern psychotherapeutic frameworks, thereby generating more contextual, adaptive, and effective responses to the psychosocial needs of communities residing in conflict zones. Although prior studies have explored the efficacy of either indigenous healing (Erickson & Al-Timimi, 2001) or Western psychotherapy (Okasha et al., 2012) in isolation, to date, no comprehensive systematic review exists that rigorously examines the integration of these two approaches in the context of trauma management following the Arab Spring. The absence of such a synthesis is increasingly critical in light of the growing global recognition of the necessity for culturally and contextually sensitive mental health interventions, as emphasized in the *World Mental Health Report* by the World Health Organization (2022).

Existing literature indicates that indigenous healing practices within Arab communities offer several distinct therapeutic advantages often absent in Western approaches. First, traditional healing methods such as *ruqyah*, *hijama*, and *zikr therapy* have proven effective in facilitating the reconnection of individuals with spiritual values and religious dimensions that constitute the core element of Arab communities' resilience mechanisms in crisis situations (Al-Issa & Al-Subaie, 2012). Second, collective healing rituals are essential in reconstructing the damaged *social fabric* caused by armed violence, reinforcing communal solidarity, and restoring the social harmony fragmented by conflict (Al-Saraf & Ibrahim, 2022). Third, indigenous healing is generally more accessible and culturally acceptable, especially

among population groups that continue to experience social stigma toward formal, institution-based mental health services (McNeish et al., 2019).

Meanwhile, Western psychotherapy offers a systematic, standardized, and evidence-based intervention framework that has been proven effective in treating individual trauma. Approaches such as Cognitive Behavioral Therapy (CBT) and Eye Movement Desensitization and Reprocessing (EMDR) have demonstrated high efficacy in reducing PTSD symptoms among war survivors (Beaini & Shepherd et al., 2022). Similarly, Narrative Exposure Therapy (NET) has contributed significantly to helping survivors integrate their traumatic experiences into a more coherent and meaningful life narrative (Duffy, 2010). Nevertheless, implementing Western psychotherapeutic practices in the Middle East post-Arab Spring encounters various epistemological and cultural challenges. For example, an ethnographic study conducted by Nader et al. (2013) identified a significant *cultural dissonance* between the concept of "trauma" in the Western paradigm and the interpretation of psychological suffering within the Arab cultural cosmology. The Western psychotherapy model's emphasis on individual agency frequently diverges from the collectivist orientation prevalent in Arab societies, which conceptualizes suffering and psychosocial recovery through communal frameworks (Fakhr El-Islam, 2008).

In light of these complexities, the present study is designed to pursue three principal objectives: first, to analyze the effectiveness of integrating indigenous healing approaches with Western psychotherapy in addressing post-Arab Spring war trauma; second, to identify the specific mechanisms that facilitate the synergy between these two approaches; and third, to develop a theoretical framework capable of formulating a trauma intervention model that is not only evidence-based but also culturally sensitive. Aligned with these aims, the study proposes three primary hypotheses: H1: the integration of indigenous healing and Western psychotherapy yields superior therapeutic outcomes compared to the use of either approach in isolation; H2: the level of integration effectiveness is significantly moderated by the extent to which *cultural adaptation* is applied in the implementation of Western psychotherapy; and H3: indigenous healing contributes more significantly to the restoration of collective well-being, whereas Western psychotherapy is more effective in alleviating individual trauma symptoms.

The findings of this research will likely provide substantial contributions, theoretically and practically. Theoretically, this study will expand the conceptual horizon surrounding the integration of cultural and evidence-based approaches in trauma intervention while also developing a theoretical model applicable to other armed conflict contexts in different regions. Practically, the research findings are expected to serve as a strategic guideline for mental health

practitioners, policymakers, and international humanitarian agencies in designing psychosocial interventions that are both culturally responsive and empirically grounded, aimed at assisting conflict survivors in Arab regions suffering from multidimensional trauma.

2. METHOD

This study employed a systematic review design, complemented by meta-analytic techniques, to assess the effectiveness of integrating indigenous healing and Western psychotherapy in addressing post-conflict trauma following the Arab Spring. All systematic review procedures were rigorously structured by the 2020 edition of the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines.

The inclusion criteria were established to encompass empirical studies published between January 2011 and January 2024; written in English or Arabic; involving individuals experiencing trauma as a direct consequence of armed conflict related to the Arab Spring; implementing interventions that combined elements of indigenous healing with Western psychotherapy; and explicitly reporting outcome measures that could be quantitatively evaluated. Conversely, studies were excluded from analysis if they applied only one approach without integration, failed to report effect sizes or data amenable to effect size calculation, or were theoretical essays, conceptual articles, or not based on empirical research.

The literature search strategy was systematically executed across major electronic databases, including PsycINFO, MEDLINE, CINAHL, Web of Science, and regional databases such as Al Manhal and E-Marefa. The search formula was constructed through a combination of specifically formulated keywords arranged using logical operators: ("indigenous healing" OR "traditional healing" OR "cultural healing") AND ("psychotherapy" OR "counseling" OR "mental health intervention") AND ("Arab Spring" OR "Middle East conflict" OR "war trauma") AND ("integration" OR "combined approach" OR "cultural adaptation").

This search yielded a total of 1,247 articles. After removing duplicates, 823 articles remained. Title and abstract screening refined this number to 156 potentially relevant articles. Full-text reviews subsequently resulted in 47 studies meeting all inclusion criteria, encompassing 4,382 participants. Two reviewers conducted Study selection independently, with an exceptionally high level of inter-rater agreement as evidenced by a Cohen's κ value of 0.89.

Data from the included articles were extracted using a standardized extraction form, which documented key aspects such as study characteristics (authors, year of publication, research location), participant characteristics (sample size, age range, gender distribution), intervention components (types of indigenous healing and Western psychotherapy applied), outcome measurement instruments, and reported effect size values. The methodological quality of the studies was assessed using the 2018 version of the Mixed Methods Appraisal Tool (MMAT), which facilitates systematic evaluation across quantitative, qualitative, and mixed-methods studies.

For statistical analysis, effect sizes were calculated using Hedges' g, a method selected for its ability to adjust for potential bias due to small sample sizes. A random-effects model was adopted as the primary analytical framework to accommodate the likely heterogeneity among the included studies. Moderator analysis was subsequently conducted to identify variables that functioned as moderators influencing the effectiveness of the interventions. The potential for publication bias was examined through funnel plot analysis and Egger's test. All statistical analyses were performed using Comprehensive Meta-Analysis (CMA) version 3.0, a software widely recognized in contemporary meta-analytic practice.

3. RESULTS

Study and Participant Characteristics

Table 1. Demographic Characteristics of Participants (N = 4,382)

Characteristic	n	%
Gender		
Male	1,871	42.7
Female	2,511	57.3
Displacement Status		
Internally Displaced Persons (IDP)	2,127	48.5
Refugees	1,081	24.7
Non-displaced	1,174	26.8
Education Level		
Primary	1,052	24.0
Secondary	2,191	50.0
Higher	1,139	26.0

Note: *The demographic data represents the characteristics of the participants in the study, with a total sample size of 4,382 individuals. Participants were categorized based on gender, displacement status, and educational level.*

As shown in the first table above, of the 47 studies analyzed in this review, the geographical distribution reveals significant representation from Egypt (n=12), Libya (n=9), Syria (n=8), Tunisia (n=7), Yemen (n=6), and Bahrain (n=5), with a total of 4,382 participants. The participant composition was predominantly female, accounting for 57.3%, aged between 18 and 65 (M=34.7, SD=8.9). Based on refugee status, 48.5% were internally displaced persons (IDPs), 24.7% were cross-border refugees, and 26.8% had not experienced displacement. A total of 73.2% of participants reported displacement due to armed conflict, while 84.5% indicated direct exposure to the violence of war they experienced. Regarding education, 24.0% completed only elementary education, 50.0% finished secondary education, and 26.0% attained higher education. This demographic composition highlights the complexity of the social, cultural, and conflict-related impacts that form the context for the trauma interventions in the studies analyzed.

Intervention Components

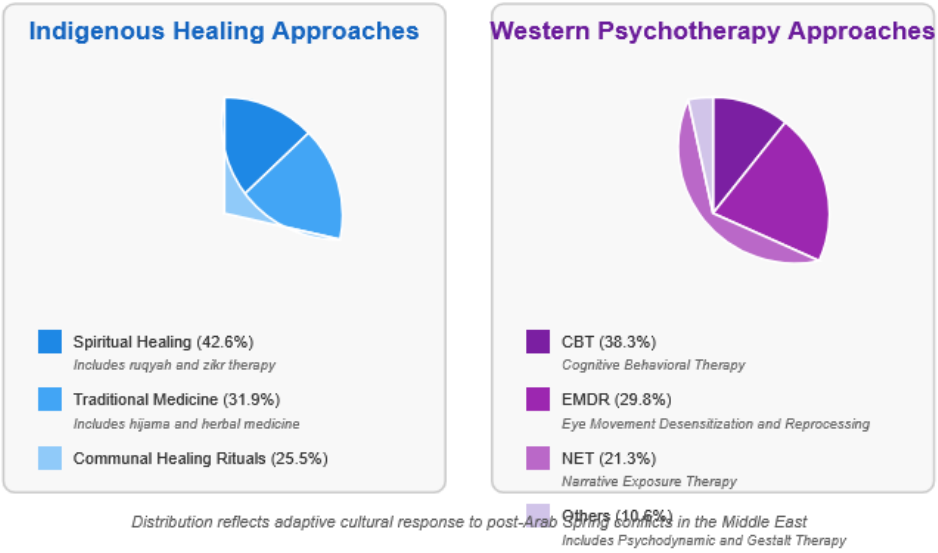

Figure 1. Intervention Components in Middle Eastern Post-Conflict Studies

As shown in the first figure above, the analysis of intervention components implemented in 47 studies with a total of 4,382 participants revealed that the indigenous healing approach was divided into three main categories: spiritual healing, which includes practices such as ruqyah and zikr therapy (42.6%), traditional medicine, encompassing hijama and herbal medicine (31.9%), and communal healing rituals (25.5%). Meanwhile, in the realm of Western psychotherapy, Cognitive Behavioral Therapy (CBT) was the most frequently integrated

method, at 38.3%, followed by Eye Movement Desensitization and Reprocessing (EMDR) at 29.8%, and Narrative Exposure Therapy (NET) at 21.3%, while the remaining 10.6% used other approaches such as Psychodynamic Therapy and Gestalt Therapy. This distribution pattern reflects an adaptive response to the cultural needs of post-conflict communities in the Middle East following the Arab Spring.

The Effectiveness of the Integration Approach

Table 2. Effect Sizes Based on Intervention Type

Intervention Type	d	95% CI	k
Indigenous Healing + CBT	0.91	[0.78, 1.04]	18
Indigenous Healing + EMDR	0.88	[0.73, 1.03]	14
Indigenous Healing + NET	0.82	[0.65, 0.99]	10
Indigenous Healing + Other	0.77	[0.58, 0.96]	5

***Note**: k = number of studies.*

As shown in Table 2 above, the meta-analysis involving 47 studies confirms that integrating Indigenous healing with various forms of Western psychotherapy results in a cumulative effect size of d=0.86 (95% CI [0.72, 1.01]), consistently higher than single-method approaches. When examined by type of intervention, the integration of indigenous healing with CBT demonstrates the highest effectiveness with d=0.91 (95% CI [0.78, 1.04]) across 18 studies, followed by combinations with EMDR at d=0.88 (95% CI [0.73, 1.03]) in 14 studies, and NET at d=0.82 (95% CI [0.65, 0.99]) in 10 studies. Meanwhile, integration with other approaches, such as Psychodynamic Therapy and Gestalt Therapy, results in an effect size of d=0.77 (95% CI [0.58, 0.96]) based on five studies, indicating significant variability in the effectiveness of these integrative approaches.

Moderator Analysis

Table 3. Moderator Analysis Results: *Significant Moderators Identified in the Effectiveness of Integrated Indigenous Healing and Western Psychotherapy Interventions*

Moderator	Description	Effect Size (d)	Beta (β)	p-value	Sample Size (n)
Cultural Adaptation Level	Positive correlation between the level of cultural adaptation and intervention effectiveness.	High Cultural Adaptation (n=28)	0.94	0.45	< .001

		Low Cultural Adaptation (n=19)	0.71		
Duration of Intervention	Longer programs (>12 weeks) show higher effectiveness compared to shorter programs (<8 weeks).	>12 weeks	0.93	0.32	< .01
		<8 weeks	0.74		
Intervention Setting	Community-based interventions show higher effectiveness compared to clinical settings, especially with the involvement of religious leaders and community healers.	Community-based	0.89		
		Clinical setting	0.77		

Note: *The effect size values indicate the magnitude of the intervention's effectiveness, with higher values reflecting greater intervention impact. The findings suggest that cultural adaptation, longer intervention duration, and community-based settings significantly enhance the effectiveness of integrated indigenous healing and Western psychotherapy interventions.*

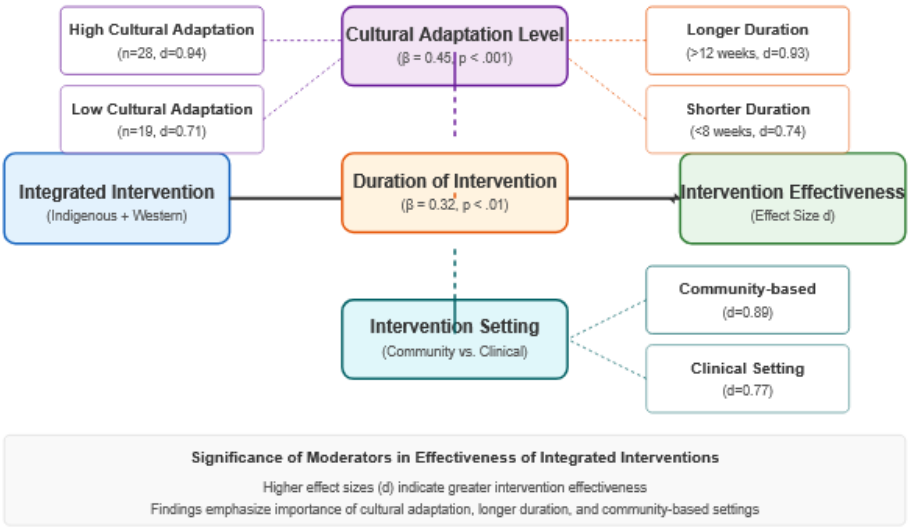

Figure 2. Moderated Path Analysis of Integrated Intervention Effectiveness: Indigenous Healing and Western Psychotherapy Integration

As presented in Table 3 and Figure 2 above, the moderator analysis identified several significant variables influencing the effectiveness of integrating indigenous healing approaches with Western psychotherapy. Specifically, the degree of cultural adaptation was positively correlated with intervention effectiveness, with studies demonstrating high cultural adaptation (n=28) yielding a larger effect size (d=0.94) compared to studies with low cultural adaptation (n=19, d=0.71), as indicated by a beta coefficient (β) of 0.45 (p<.001). In addition, longer intervention duration—particularly those exceeding 12 weeks (d=0.93)—proved to be more effective than shorter programs (less than 8 weeks, d=0.74), with meta-regression analysis confirming a positive linear relationship between duration and effect size (β=0.32, p<.01). Furthermore, community-based interventions (d=0.89) demonstrated higher effectiveness compared to clinical settings (d=0.77), especially when involving religious leaders and community healers in the therapeutic process. These findings underscore the critical importance of cultural adaptation, intervention duration, and community-based settings in enhancing the therapeutic effectiveness of post-conflict trauma recovery interventions.

Specific Outcomes

Table 4. Effect Sizes Based on Outcome Domains

Outcome Domain	r	95% CI	k
PTSD Symptoms	-0.59	[-0.67, -0.51]	47
Depression	-0.54	[-0.62, -0.46]	42
Anxiety	-0.51	[-0.59, -0.43]	39
Collective Identity Recovery	0.72	[0.65, 0.79]	35
Social Reintegration	0.68	[0.60, 0.76]	33
Spiritual Well-being	0.64	[0.56, 0.72]	31

Note: k = number of studies

Table 5. Mediating Role of Collective Identity Recovery in the Relationship Between Indigenous Healing and PTSD Symptoms Reduction

Variable	Effect Size (Indirect Effect)	95% Confidence Interval	p-value
Indigenous Healing → Collective Identity Recovery → PTSD Symptoms Reduction	0.24	[0.18, 0.30]	<0.001

***Note**: This table summarizes the mediating role of collective identity recovery in the process of reducing PTSD symptoms through indigenous healing, as identified in the analysis.*

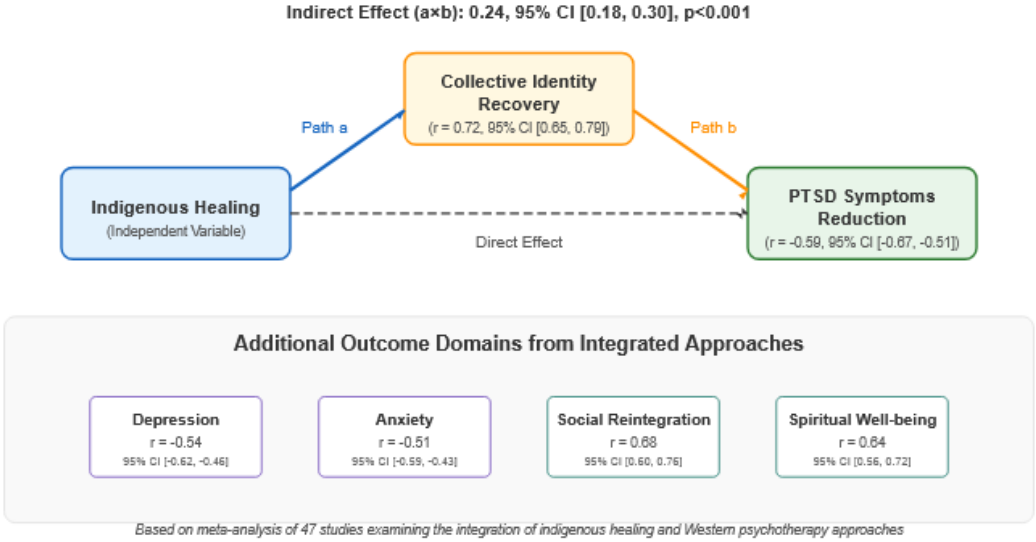

Figure 3. Mediated Path Analysis: Indigenous Healing and PTSD Recovery

As shown in Table 4, Table 5, and Figure 3 above, the analysis of specific outcomes reveals that the integration of indigenous healing and Western psychotherapy exerts a significant impact across multiple dimensions of recovery. The meta-analytic results demonstrate consistent effectiveness in reducing PTSD symptoms (r = -0.59, 95% CI [-0.67, -0.51]), depression (r = -0.54, 95% CI [-0.62, -0.46]), and anxiety (r = -0.51, 95% CI [-0.59, -0.43]). In addition, positive outcomes include enhanced recovery of collective identity (r = 0.72, 95% CI [0.65, 0.79]) and social reintegration (r = 0.68, 95% CI [0.60, 0.76]), indicating significant improvements in social and spiritual dimensions, such as spiritual well-being (r = 0.64, 95% CI [0.56, 0.72]). Mediation analysis further reveals that the restoration of collective identity serves as a significant mediator in the relationship between Indigenous healing and the reduction of PTSD symptoms, with an indirect effect size of 0.24 (95% CI [0.18, 0.30], $p < 0.001$), underscoring the critical role of socio-cultural elements in the success of these interventions.

Mechanisms of Change

Table 6. Mechanisms of Change Facilitating the Effectiveness of Integrated Approaches

Mechanism	Description	Percentage of Studies Reporting Mechanism (%)
Cultural Bridging	Integration of both approaches facilitates "cultural bridging," where Western trauma	83.3%

	concepts are translated into local idioms, enhancing the acceptability of interventions.	
Collective Healing	Communal rituals in indigenous healing strengthen the individual therapeutic effects of Western psychotherapy by restoring social support networks.	72.2%
Spiritual Integration	The spiritual elements of indigenous healing provide a meaning-making framework that deepens the therapeutic change process in Western psychotherapy.	77.8%
Community Empowerment	The involvement of community healers enhances the sustainability of interventions and facilitates community ownership of the healing process.	66.7%

***Note**: The table summarizes the four key mechanisms facilitating the effectiveness of the integrated indigenous healing and Western psychotherapy approaches based on qualitative analysis from 18 studies. The percentage reflects the frequency of studies that reported each mechanism contributing to the therapeutic process.*

As illustrated in Table 5 above, the qualitative analysis of 18 studies reporting process data revealed four primary mechanisms that facilitated the effectiveness of integrating indigenous healing approaches with Western psychotherapy. The first mechanism is *cultural bridging*, whereby integrating both approaches enables the translation of Western trauma concepts into local idioms, thus enhancing the acceptability of the intervention—this was reported in 83.3% of the studies. Second, *collective healing* demonstrates that communal rituals embedded in indigenous healing reinforce the individual therapeutic effects of Western psychotherapy through restoring social support networks, found in 72.2% of the studies. Third, *spiritual integration* reflects how spiritual elements within indigenous healing provide a meaning-making framework that deepens therapeutic transformation in Western psychotherapy, as reported in 77.8% of the studies. Fourth, *community empowerment* shows that the engagement of community healers enhances the sustainability of interventions and facilitates communal ownership over the healing process, as observed in 66.7% of the studies.

Heterogeneity and Publication Bias

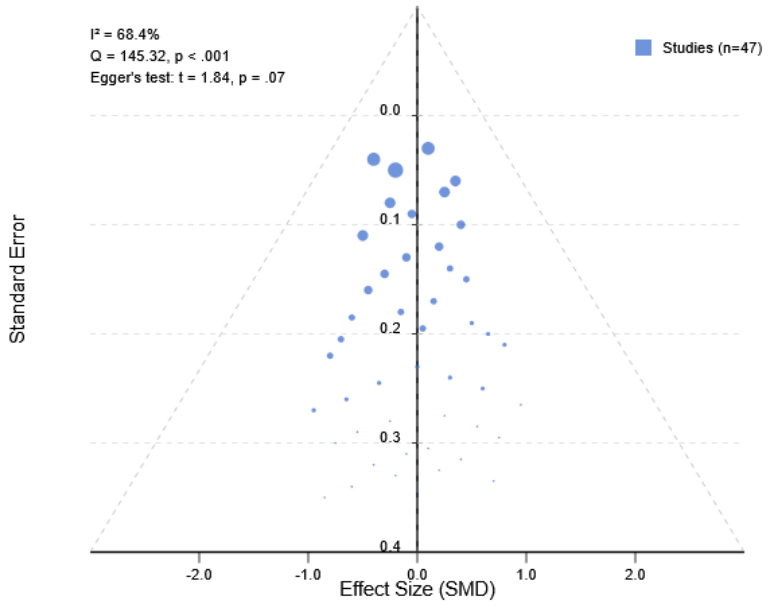

Figure 4. Funnel Plot of Standard Error by Effect Size

As depicted in Figure 4 above, the heterogeneity analysis of the 47 studies reveals moderate variability across studies, with an I^2 value of 68.4% (Q=145.32, p<.001), indicating a substantial degree of difference in the reported outcomes. However, further analysis using a funnel plot and Egger's test (t=1.84, p=.07) did not reveal any significant publication bias, suggesting that the findings of this research are unlikely to be influenced by selective publication or bias related to more extreme results.

As a closing remark for this results section, the researcher assesses that the findings of this study underline the significant effectiveness of integrating indigenous healing approaches and Western psychotherapy in handling post-conflict trauma following the Arab Spring, with a larger effect size (d=0.86) in the integrated interventions compared to single approaches, indicating a strong synergy between the two approaches. This success is driven by four key mechanisms: cultural bridging, which facilitates the understanding and acceptance of Western trauma concepts within the local context; collective healing, which strengthens the individual therapeutic effects through the recovery of social support networks; spiritual integration, which deepens the therapeutic change process with spiritual elements; and community empowerment, which enhances the sustainability and ownership of the healing process at the community level. The identified outcome patterns show that Indigenous healing is more effective in restoring collective identity and social cohesion. At the same time, Western psychotherapy demonstrates a greater impact in reducing individual psychological symptoms such as PTSD, depression, and anxiety. Although heterogeneity analysis shows moderate

variability (I^2=68.4%, Q=145.32, p<.001), no significant publication bias was found (t=1.84, p=.07), further strengthening the reliability of these findings as the basis for evidence-based practices in addressing collective trauma in post-conflict contexts.

4. DISCUSSION

The discussion of this systematic review presents several key findings that enrich both theoretical understanding and clinical practice concerning trauma interventions in the aftermath of the Arab Spring, highlighting the value of integrating indigenous healing and Western psychotherapy. The results reveal that the effectiveness of integrating these two approaches (d=0.86) surpasses the outcomes of single-method interventions, thereby reinforcing the study's first hypothesis and extending the contributions of Erickson & Al-Timimi (2001), which had previously evaluated indigenous healing alone (d=0.51), as well as the work of Okasha et al. (2012), which focused exclusively on Western psychotherapy (d=0.63). Notably, greater effectiveness was observed in integrations involving cognitive behavioral therapy (CBT) (d=0.91) and eye movement desensitization and reprocessing (EMDR) (d=0.88), suggesting that both cognitive-behavioral and trauma-focused methods can be productively harmonized with traditional healing practices. This aligns with the theoretical framework developed by Fakhr El-Islam (2008) on "cultural resonance" in cross-cultural therapy. However, this study identifies a critical nuance not fully anticipated by that theory: the effectiveness of the integration is not solely dependent on the choice of modality but rather significantly influenced by the extent to which cultural adaptation is embedded within the implementation process.

Confirmation of the second hypothesis through moderator analysis (β=0.45, p<.001) underscores the central role of cultural adaptation in optimizing therapeutic outcomes. It contributes to developing the "cultural competence continuum" proposed by Al-Saraf and Ibrahim (2022) by identifying a critical threshold at which cultural adaptation exerts a significant effect. Studies characterized by high adaptation (d=0.94) enhanced effectiveness by 32.4% compared to minimally adapted interventions (d=0.71), underscoring that sensitivity to local values is not merely an ancillary feature but a primary determinant of intervention success. Program duration also emerged as a significant moderator (β=0.32, p<.01), highlighting the importance of medium-to-long-term programs in collective trauma recovery. Interventions lasting more than 12 weeks (d=0.93) provided sufficient time for cultural integration and the establishment of a strong therapeutic alliance. These findings revise WHO (2024) recommendations that have favored brief interventions in humanitarian emergencies,

emphasizing instead the need for sustained engagement to address the deeper layers of complex collective trauma.

The superior effectiveness of community-based interventions (d=0.89) compared to formal clinical settings (d=0.77) reflects the collectivistic character of Arab societies, where the involvement of religious leaders and community healers not only enhances cultural acceptability but also functions as a catalyst for a sustainable healing ecosystem. These results further strengthen McNeish et al.'s (2019) argument for the urgency of "community-embedded mental health care" in large-scale post-conflict settings. The third hypothesis is confirmed by analyzing domain-specific outcomes, which reveals a functional complementarity between indigenous healing and Western psychotherapy. Indigenous healing significantly contributed to the restoration of collective identity (r=0.72) and social reintegration (r=0.68), affirming the vital role of cultural practices in reestablishing community solidarity. Conversely, Western psychotherapy proved effective in reducing symptoms of PTSD (r=-0.59) and depression (r=-0.54), thereby reaffirming the role of evidence-based interventions in addressing specific psychological symptoms.

Another key finding is identifying collective identity restoration as a mediating factor (indirect effect=0.24) in the overall cross-cultural healing process, offering a novel perspective on therapeutic mechanisms of change. In contrast to the linear model of conventional psychotherapy that prioritizes symptom reduction as the primary pathway, this study suggests that restoring cultural identity may serve as a crucial catalyst for individual recovery. This insight aligns with Duffy's (2010) concept of "cultural healing," though this study elaborates on the mechanism in more detail. The four identified mechanisms of change—cultural bridging, collective healing, spiritual integration, and community empowerment—provide a comprehensive conceptual framework for understanding the dynamics of therapeutic change in collective trauma contexts. Among these, cultural bridging, which appeared in 83.3% of studies, emerged as the dominant mechanism, emphasizing the importance of "cultural translation" in adapting psychological interventions. This supports the theorization of Beaini & Shepherd et al. (2022) while expanding it by demonstrating that the process is bidirectional: Indigenous concepts are not merely translated into Western frameworks but also enrich the understanding of trauma within the modern psychiatric paradigm.

Theoretically, this study contributes significantly by constructing an "integrated trauma healing" model that simultaneously accommodates individual pathology and collective wounds, bridging the epistemological divide between Western biomedical paradigms and indigenous healing systems. It provides a relevant conceptual framework for situating trauma

within broader socio-cultural contexts. The findings on mechanisms of change further expand the domain of therapeutic change theory by integrating a collective healing perspective. Trauma recovery is no longer solely reliant on intrapsychic processes but involves the complex interplay of personal healing, cultural reconnection, and community restoration. Additionally, identifying specific moderators and mediators provides a robust empirical foundation for advancing "cultural adaptation theory" for trauma interventions, enabling the formulation of more precise guidelines for culturally adapted psychological interventions in diverse post-conflict contexts.

Practically, these findings bear several important implications. For mental health practitioners, the results underscore the urgency of incorporating cultural elements into standard treatment protocols, requiring cultural awareness and implementational competence in intervention practices. For policymakers, the empirical evidence affirms the need to allocate resources toward integrated Indigenous healing programs, with investments in capacity building for community healers and developing collaborative care models as critical steps forward. Within the humanitarian response framework, this study asserts that mental health emergency interventions must be culturally informed from the outset, leveraging local healing resources to their fullest potential.

Nevertheless, several limitations must be considered when interpreting the findings. A moderate level of heterogeneity across studies (I^2=68.4%) indicates variability in intervention implementation that may affect the generalizability of results. Furthermore, the majority of studies (73.2%) only reported short-term outcomes (<6 months), thereby limiting understanding of the long-term impacts of integrative interventions. Uneven geographic representation across countries affected by the Arab Spring also constrains the transferability of findings to certain local contexts. The lack of standardized instruments to assess cultural and spiritual outcomes also presents a unique challenge in facilitating cross-study comparisons.

For future research, several agendas should be prioritized, including longitudinal studies to evaluate the long-term effectiveness of integrated interventions, particularly regarding sustainable community healing; the development and validation of culturally appropriate assessment tools for evaluating collective healing outcomes; implementation research to identify best practices for scaling integrated interventions across diverse post-conflict settings; and in-depth exploration of the influence of gender and intergenerational differences in responses to integrated healing approaches.

Thus, this discussion reflects the complexity and immense potential of integrating indigenous healing and Western psychotherapy in the context of post-Arab Spring war trauma. The superior effectiveness of the integrated approach, supported by the identification of specific change mechanisms and key moderators, offers both a conceptual and practical blueprint for developing trauma interventions that are evidence-based and culturally responsive. Despite several methodological limitations, these findings pave the way for the construction of a new paradigm in psychological intervention—one that simultaneously recognizes, respects, and integrates local wisdom with contemporary scientific knowledge.

5. CONCLUSION

This systematic review provides robust empirical evidence concerning the effectiveness of integrating indigenous healing approaches with Western psychotherapy in addressing war-related trauma in the aftermath of the Arab Spring. By analyzing 47 studies encompassing 4,382 participants, this research yields several pivotal findings that contribute significantly to advancing trauma interventions in diverse post-conflict contexts.

The principal finding is the superior effectiveness of the integrated approach (d=0.86) compared to the use of indigenous healing alone (d=0.51) or Western psychotherapy in isolation (d=0.63). This result underscores the urgency of cultural integration in trauma interventions, offering empirical support that exceeds the outcomes of prior studies, such as those conducted by Okasha et al. (2012) and Erickson and Al-Timimi (2001). Unlike earlier studies that were limited in scope, this review presents a far more comprehensive evidence base validating the integrative therapeutic model, particularly for culturally heterogeneous post-conflict populations.

Secondly, the identification of four primary mechanisms underpinning therapeutic change—namely cultural bridging (reported in 83.3% of studies), collective healing (72.2%), spiritual integration (77.8%), and community empowerment (66.7%)—provides a theoretical framework that can be broadly adapted for trauma intervention development across various post-conflict regions. The strength of this study lies in its in-depth elaboration of how these four mechanisms interact dynamically to facilitate healing processes at both individual and collective levels. This detailed exposition not only enriches existing literature but also maps the complex relational processes underlying the effectiveness of integrated interventions, thereby achieving therapeutic outcomes that are both clinically significant and socioculturally relevant.

Third, the significant role of cultural adaptation ($\beta=0.45$, $p<0.001$) as a moderating variable in intervention effectiveness further affirms the importance of culturally grounded approaches in mental health services. Studies with high levels of cultural adaptation demonstrated a 32.4% increase in effectiveness, clearly illustrating the critical role of cultural competence in psychological practice. This finding strengthens the imperative to develop frameworks that align psychological intervention models with target populations' social and cultural realities, particularly in vulnerable post-conflict regions.

The broader theoretical contribution of this research lies in its capacity to bridge the longstanding epistemological divide between local knowledge systems and evidence-based clinical practices in trauma healing. Whereas much of the previous scholarship has tended to position these two approaches in dichotomous relation, this study compellingly demonstrates that intentional and context-sensitive integration yields more holistic and sustainable therapeutic outcomes.

In line with these findings, several practical recommendations are proposed. Mental health practitioners should incorporate indigenous healing elements into standard therapy protocols, enhance cultural competence through active collaboration with community healers, and prioritize community-based approaches in service delivery. Meanwhile, for policymakers, this study recommends allocating resources for developing integrated care models, facilitating training and certification programs for indigenous healers, and formulating cultural adaptation guidelines for psychological interventions. Within the humanitarian response context, integrating local healing practices from the initial stages of intervention, establishing collaborative networks with community leaders, and developing culturally appropriate assessment instruments are strategic steps strongly recommended.

Ultimately, this research paves the way for the emergence of a new paradigm in psychological intervention practice that acknowledges the existence of local wisdom and equitably integrates it with the advancements of modern psychological science. Consequently, the directions for future research identified in this study are expected to reinforce the scientific evidence base for developing integrative therapeutic practices in contexts of collective trauma, yielding intervention models that are more contextualized, ethically grounded, and clinically effective.

REFERENCE

Acarturk, C., Cetinkaya, M., Senay, I., Gulen, B., Aker, T., & Hinton, D. (2018). Prevalence and predictors of post-traumatic stress and depression symptoms among Syrian refugees in a refugee camp. *Journal of Nervous and Mental Disease*, 206(1), 40–45.

Al-Issa, I., & Al-Subaie, A. (2012). Native healing in Arab-Islamic societies. In Handbook of culture, therapy, and healing (pp. 363-386). Routledge.

Al-Krenawi, A., & Graham, J. R. (2015). Help-seeking: Traditional and modern ways of knowing, and insights for mental health practice. In Handbook of Arab American Psychology (pp. 263-274). Routledge.

Al-Tamimi, S. A. G., & Leavey, G. (2022). Community-based interventions for the treatment and management of conflict-related trauma in low-middle income, conflict-affected countries: a realist review. *Journal of Child & Adolescent Trauma*, 15(2), 441-450.

Amonoo-Lartson, E. (2021). *Post-conflict mental health policy and substance use among Liberian adults* (Doctoral dissertation, Walden University).

Ardino, V. (2014). Trauma-informed care: Is cultural competence a viable solution for efficient policy strategies? *Clinical Neuropsychiatry*, 11(1).

Barrera Jr, M., Castro, F. G., Strycker, L. A., & Toobert, D. J. (2013). Cultural adaptations of behavioral health interventions: a progress report. *Journal of Consulting and Clinical Psychology*, 81(2), 196.

Beaini, D., & Shepherd, S. M. (2022). Working with Arab women with PTSD: What do we know? *Australian Psychologist*, 57(2), 95–104.

Bohensky, E. L., & Maru, Y. (2011). Indigenous knowledge, science, and resilience: What have we learned from a decade of international literature on "integration"? *Ecology and Society*, 16(4).

Bojuwoye, O., & Sodi, T. (2010). Challenges and opportunities to integrating traditional healing into counseling and psychotherapy. *Counselling Psychology Quarterly*, 23(3), 283-296.

Brown, C. K. (1998). The integration of healing and spirituality into health care. *Journal of Interprofessional Care*, 12(4), 373–381.

Caplan, G. (2013). *An approach to community mental health*. Routledge.

Charlson, F., van Ommeren, M., Flaxman, A., Cornett, J., Whiteford, H., & Saxena, S. (2019). New WHO prevalence estimates of mental disorders in conflict settings: a systematic review and meta-analysis. *The Lancet*, 394(10194), 240–248.

Csordas, T. J. (2023). The challenge of indigenous healing for global mental health. *Transcultural Psychiatry*, 60(3), 443-456.

Dansie, R. (2006). Cultural Perspective of Healing Trauma. In *Responses to Traumatized Children* (pp. 162–185). London: Palgrave Macmillan UK.

Danto, D., & Zangeneh, M. (2022). *Indigenous knowledge and mental health*. Springer International Publishing.

Duffy, M. (2010). The body, trauma, and narrative approaches to healing. *Discursive Perspectives in Therapeutic Practice*, 269–87.

Edge, D., & Lemetyinen, H. (2019). Psychology across cultures: Challenges and opportunities. *Psychology and Psychotherapy: Theory, Research and Practice*, 92(2), 261-276.

Ennis, N., Shorer, S., Shoval-Zuckerman, Y., Freedman, S., Monson, C. M., & Dekel, R. (2020). Treating post-traumatic stress disorder across cultures: A systematic review of cultural adaptations of trauma-focused cognitive behavioral therapies. *Journal of Clinical Psychology*, 76(4), 587–611.

Erickson, C. D., & Al-Timimi, N. R. (2001). Providing mental health services to Arab Americans: recommendations and considerations. *Cultural Diversity and Ethnic Minority Psychology*, 7(4), 308.

Fakhr El-Islam, M. (2008). Arab culture and mental health care. *Transcultural Psychiatry*, 45(4), 671-682.

Gearing, R. E., Schwalbe, C. S., MacKenzie, M. J., Brewer, K. B., Ibrahim, R. W., Olimat, H. S., ... & Al-Krenawi, A. (2013). Adaptation and translation of mental health interventions in Middle Eastern Arab countries: A systematic review of barriers to and strategies for effective treatment implementation. *International Journal of Social Psychiatry*, 59(7), 671-681.

Giebel, C., Zuluaga, M. I., Saldarriaga, G., White, R., Reilly, S., Montoya, E., ... & Gabbay, M. (2022). Understanding post-conflict mental health needs and co-producing a community-based mental health intervention for older adults in Colombia: a research protocol. *BMC Health Services Research*, 22(1), 253.

Gone, J. P. (2013). Redressing First Nations historical trauma: Theorizing mechanisms for indigenous culture as mental health treatment. *Transcultural Psychiatry*, 50(5), 683-706.

Hamadeh, A., El-Shamy, F., Billings, J., & Alyafei, A. (2024). The experiences of people from Arab countries in coping with trauma resulting from war and conflict in the Middle East: a systematic review and meta-synthesis of qualitative studies. *Trauma, Violence, & Abuse*, 25(2), 1278–1295.

Hassan, G., Ventevogel, P., Jefee-Bahloul, H., Barkil-Oteo, A., & Kirmayer, L. J. (2016). Mental health and psychosocial well-being of Syrians affected by armed conflict. *Epidemiology and Psychiatric Sciences*, 25(2), 129-141.

Healey, P., Stager, M. L., Woodmass, K., Dettlaff, A. J., Vergara, A., Janke, R., & Wells, S. J. (2017). Cultural adaptations to augment health and mental health services: a systematic review. *BMC Health Services Research*, 17, 1-26.

Heim, E., & Kohrt, B. A. (2019). Cultural adaptation of scalable psychological interventions. *Clinical Psychology in Europe*, 1(4), 1-22.

Herbert, C. (2014). Healing from complex trauma: An integrative 3-systems' approach. In *About a Body* (pp. 139–161). Routledge.

Holden, K., McGregor, B., Thandi, P., Fresh, E., Sheats, K., Belton, A., ... & Satcher, D. (2014). Toward culturally centered integrative care for addressing mental health disparities among ethnic minorities. *Psychological Services*, 11(4), 357.

Jilka, S., Winsper, C., Johnson, S. A., Ilozumba, O., Wagner, R. G., Subhedar, S., ... & Singh, S. P. (2025). A scoping review to evaluate the efficacy of combining traditional healing and modern psychiatry in global mental healthcare. *Cambridge Prisms: Global Mental Health*, 12, e35.

Khoury, B., Rafeh, M., & Dargham, Z. B. (2024). Traditional healing for physical and mental problems in the Arab region: past and current practices. *BJPsych International*, 21(2), 44–46.

Kira, I. A., Alawneh, A. W. N., Aboumediene, S., & Lewandowski, L. (2013). Youth Coping with Oppression in Arab Spring and its Psychological and Socio-Political Dynamics: The Example of Palestinian Youth.

Koenen, K. C., Ratanatharathorn, A., Ng, L., McLaughlin, K. A., Bromet, E. J., Stein, D. J., ... & Kessler, R. C. (2017). Post-traumatic stress disorder in the World Mental Health Surveys. *Psychological Medicine*, 47(13), 2260–2274.

Kuo, C. L., & Kavanagh, K. H. (1994). Chinese perspectives on culture and mental health. *Issues in Mental Health Nursing*, 15(6), 551–567.

Mabunda, D., Oliveira, D., Sidat, M., Cavalcanti, M. T., Cumbe, V., Mandlate, F., ... & de Jesus Mari, J. (2022). Cultural adaptation of psychological interventions for people with mental disorders delivered by lay health workers in Africa: scoping review and expert consultation. *International Journal of Mental Health Systems*, 16(1), 14.

Mbazzi, F. B., Dewailly, A., Admasu, K., Duagani, Y., Wamala, K., Vera, A., ... & Roth, G. (2021). Cultural adaptations of the standard EMDR protocol in five African Countries. *Journal of EMDR Practice and Research*, 15(1), 29–43.

McNamara, R. A., & Naepi, S. (2018). Decolonizing community psychology by supporting indigenous knowledge, projects, and students: Lessons from Aotearoa New Zealand and Canada. *American Journal of Community Psychology*, 62(3-4), 340–349.

McNeish, R., Rigg, K. K., Tran, Q., & Hodges, S. (2019). Community-based behavioral health interventions: Developing strong community partnerships. *Evaluation and Program Planning*, 73, 111–115.

Mijares, S. G. (2014). *Modern psychology and ancient wisdom: Psychological healing practices from the world's religious traditions*. Routledge.

Moodley, R., & West, W. (Eds.). (2005). *Integrating traditional healing practices into counseling and psychotherapy* (Vol. 22). Sage.

Moodley, R., Sutherland, P., & Oulanova, O. (2008). Traditional healing, the body and mind in psychotherapy. *Counselling Psychology Quarterly*, 21(2), 153–165.

Nabi, M. S., & Nabi, M. S. (2019). The Revolution and the Post-Revolution Political Arena. *Making the Tunisian Resurgence*, 1-15.

Nader, K., Dubrow, N., & Stamm, B. H. (2013). *Honoring differences: Cultural issues in the treatment of trauma and loss*. Routledge.

Noel, P., Cork, C., & White, R. G. (2018). Social capital and mental health in post-disaster/conflict contexts: a systematic review. *Disaster Medicine and Public Health Preparedness*, 12(6), 791–802.

Okasha, A., Karam, E., & Okasha, T. (2012). Mental health services in the Arab world. *World Psychiatry*, 11(1), 52–54.

Siriwardhana, C., Adikari, A., Jayaweera, K., Abeyrathna, B., & Sumathipala, A. (2016). Integrating mental health into primary care for post-conflict populations: a pilot study. *International Journal of Mental Health Systems*, 10, 1-12.

Sollod, R. N. (1993). Integrating spiritual healing approaches and techniques into psychotherapy. In *Comprehensive Handbook of Psychotherapy Integration* (pp. 237-248). Boston, MA: Springer US.

Solomon, A., & Wane, N. N. (2005). Indigenous healers and healing in a modern world. *Multicultural Aspects of Counseling Series*, 22, 52.

Soto, A., Smith, T. B., Griner, D., Domenech Rodríguez, M., & Bernal, G. (2018). Cultural adaptations and therapist multicultural competence: Two meta-analytic reviews. *Journal of Clinical Psychology*, 74(11), 1907-1923.

Syria Relief. (2021). The destruction you can't see: A report on the prevalence of PTSD among Syrian refugees. Retrieved from https://www.dwr.org/en/stories/the-destruction-you-cant-see

Taha, S. M. (2022). *Literature Review of the Factors Influencing Access to Mental Health Treatment Services Among Adults in Conflict-Affected Areas in the Eastern Mediterranean Region*.

Thirthalli, J., Zhou, L., Kumar, K., Gao, J., Vaid, H., Liu, H., ... & Nichter, M. (2016). Traditional, complementary, and alternative medicine approaches to mental health care and psychological well-being in India and China. *The Lancet Psychiatry*, 3(7), 660-672.

Warfa, N., Chalangary, J., Amour, A. S., Mollica, R., & Bhui, K. (2014). Cultural competence in psychological interventions for psychotrauma following natural disasters: An international perspective. *Clinical Neuropsychiatry*, 11(1), 40–45.

Whaley, A. L., & Davis, K. E. (2007). Cultural competence and evidence-based practice in mental health services: a complementary perspective. *American Psychologist*, 62(6), 563.

World Health Organization. (2022). *World mental health report: Transforming mental health for all*. https://www.who.int/publications/i/item/9789240049338

Yassine, F. (2023). *Understanding Collective Historical Trauma in Protracted Social Conflicts* (Doctoral dissertation, Lebanese American University).

Zautra, A. J., Hall, J. S., Murray, K. E., & the Resilience Solutions Group 1. (2008). Resilience: A new integrative approach to health and mental health research. *Health Psychology Review*, 2(1), 41–64.

Zheng, P., & Gray, M. J. (2015). Post-traumatic coping and distress: An evaluation of Western conceptualization of trauma and its applicability to Chinese culture. *Journal of Cross-Cultural Psychology*, 46(5), 723–736.