

e-ISSN: 3030-8992; p-ISSN: 3030-900X, Hal. 163-184 DOI: https://doi.org/10.62027/vitamedica.v3i3.415

Available online at: https://journal.stikescolumbiasiamdn.ac.id/index.php/VitaMedica

Policy Gaps in Mental Health within Conflict-Affected Middle Eastern Countries: A Regional Synthesis

Helsa Nasution^{1*}, M. Agung Rahmadi², Luthfiah Mawar³, Nurzahara Sihombing⁴

¹Universitas Negeri Padang, Indonesia ²Universitas Islam Negeri Syarif Hidayatullah Jakarta, Indonesia ³Universitas Sumatera Utara, Indonesia ⁴SD Negeri 107396 Paluh Merbau, Indonesia

Email: helsanasution95@gmail.com¹, m.agung_rahmadi19@mhs.uinjkt.ac.id², luthfiahmawar@students.usu.ac.id³, nurzahara.sihombing47@admin.sd.belajar.id⁴

*Corresponding Author: <u>helsanasution95@gmail.com</u>

Abstract. This study conducts an in-depth examination of the structural gaps in mental health policies within conflict-affected countries in the Middle East region, employing a systematic meta-synthesis approach to analyze 87 primary studies published between 2015 and 2024. Findings reveal that only 23.4% of these countries possess mental health policies that can be classified as comprehensive. In comparison, the average budget allocation for this sector accounts for merely 2.1% of total national health expenditures. In terms of affected populations, the prevalence of mental disorders is alarmingly high, recorded at 41.3% among refugees and 37.8% among residents living amidst protracted conflict. Through logistic regression analysis, a highly significant correlational relationship was identified between conflict intensity and the severity of mental disorders (r = 0.78; p < 0.001), underscoring the systemic link between structural violence and collective psychosocial vulnerability. Furthermore, meta-regression successfully identified the five most dominant policy gaps: deficits in service infrastructure (76.5%), shortages of the professional workforce (68.2%), dysfunctions in referral systems (64.7%), limitations in funding (59.3%), and lack of intersectoral service integration (52.8%). This research not only extends the conceptual framework and empirical findings previously advanced by Sihombing et al. (2025) and Akhtar et al. (2021) concerning the mental health impacts of conflict but also innovatively articulates regionspecific patterns and identifies contextual moderator variables that influence policy implementation effectiveness. Thus, this study's methodological and conceptual novelty lies in formulating an evaluative framework grounded in empirical evidence, which integratively combines socio-political indicators with clinical mental health parameters, offering a comprehensive approach to assess and reform public policy in conflict-affected areas of the Middle East.

Keywords: Armed Conflict, Health Policy, Mental Health, Middle East, Refugees.

1. INTRODUCTION

The issue of mental health in conflict-affected areas of the Middle East has escalated into an urgent public health concern over the past decade, in tandem with the intensification of armed violence and its multidimensional impact on civilian populations (Carpiniello, 2023; Sihombing et al., 2025). According to a meta-analysis published by the World Health Organization (WHO), approximately 22.1 per cent of individuals living in conflict-affected areas experience mental disorders at any given time, which is more than double the global average (Charlson et al., 2019). More specifically, studies in the WHO Eastern Mediterranean region report a prevalence of 14.8 per cent for depression, 10.4 per cent for generalized anxiety disorder, and 7.2 per cent for post-traumatic stress disorder (Zuberi et al., 2021; Jabr et al., 2013). These data reflect the deepening of collective trauma exacerbated by protracted crises

in Syria, Yemen, and Gaza, where structural instability, mass displacement, and psychosocial stressors heighten the risk of exposure to complex mental disorders (Ekzayez & Sabouni, 2020; Bell et al., 2012; Attal & Ismail, 2024).

Recent epidemiological findings record that the prevalence of post-traumatic stress disorder (PTSD) among refugees reaches 34.7%. In comparison, major depression is diagnosed in 29.3% of individuals and generalized anxiety disorder in 26.8% of those living in active conflict zones (Crumlish & O'Rourke, 2010; Luitel et al., 2013; Akhtar et al., 2021). These figures far exceed the global averages of only 4.4% for depression and 3.6% for anxiety disorders, highlighting a stark disparity in psychological burdens borne by conflict-affected communities (Bitsko, 2022; Jan et al., 2024). Ironically, this acute psychosocial need is not matched by sufficient systemic capacity, as evidenced by the low ratio of psychiatric personnel in conflict areas—only 0.5 per 100,000 population, far below the WHO-recommended ideal ratio of 1:10,000 (Olfson, 2016; Hoge et al., 2016; Roche & Duffield, 2007).

The complexity of this issue cannot be reduced solely to clinical aspects, as the socio-economic and political structures of the region are inherently implicated in shaping the mental health landscape (Murray et al., 2014; Van Ommeren et al., 2015). Additionally, the fragmentation of healthcare systems as a direct consequence of prolonged conflict has generated systemic vulnerabilities in service provision. A 2023 regional survey indicated that 76% of primary healthcare facilities in conflict zones could not handle mental health cases, and 82% of the affected population reported encountering serious barriers in accessing basic psychosocial support services (Sameri et al., 2025; Newbrander et al., 2011; Omam et al., 2023). This disparity is further exacerbated by the inconsistency of policy frameworks across countries in the region, where some have initiated comprehensive mental health policy documents, while the majority remain in the formulation phase or are stagnant in the implementation of much-needed basic programs (Hamza & Hicks, 2021; Awenva et al., 2010; Annor & Allen, 2009).

Cross-policy analysis reveals that only about 23.4% of countries in the Middle East region have mental health policy frameworks aligned with international guidelines and standards, with an average budget allocation for this sector hovering at merely 2.1% of total national health expenditure (Votruba et al., 2018; Witter et al., 2020; Nasution et al., 2025). This gap is not merely technocratic but structural and reproductive, perpetuating cycles of chronic vulnerability (Thielke et al., 2007; Carrillo et al., 2011; Searby et al., 2025). The significance of this crisis becomes even more pronounced considering the long-term effects of conflict-induced mental disorders, which have been shown to span generations. Longitudinal

studies have indicated patterns of intergenerational trauma that reinforce long-term social instability (Osman et al., 2017; Afzal & Jafar, 2019). Recent data confirm that 47% of children in conflict zones exhibit symptoms of psychological disorders, while 63% of adults report significant declines in social functioning and productivity due to untreated mental health issues (Hodes et al., 2018; Jain et al., 2020).

While previous studies have attempted to address mental health issues in conflict contexts, existing literature reviews reveal that the majority of research still focuses on epidemiological aspects or the effectiveness of specific clinical interventions, with only a few systematically examining policy gaps from an integrative regional perspective (Slobodin & De Jong, 2015; O'Callaghan et al., 2015; Perera et al., 2020). Although the works of Sihombing et al. (2025) and Akhtar et al. (2021) have made important initial contributions to mapping the impact of conflict on mental health, comprehensive studies that delve into the structure and effectiveness of policy at the regional level remain scarce in the current academic literature (Hashemi et al., 2017; Liu & Schueller, 2023; Grant et al., 2018).

Through this study, the author seeks to fill that gap by conducting a systematic metasynthesis of mental health policies in conflict-affected Middle Eastern countries, focusing on the identification, analysis, and categorization of existing policy gaps while also exploring contextual factors that influence policy implementation effectiveness (Paton et al., 2016; Samartzis & Talias, 2020; Flannery et al., 2011). In particular, this research aims to: first, critically analyze the prevailing mental health policy frameworks in conflict-affected countries (Ziemann et al., 2023; Rahman & Al-Borie, 2021); second, identify discrepancies between policy content and international standards as well as the actual needs of affected populations (Coates et al., 2020; Phillips et al., 2019); third, explore structural and political variables that serve as either obstacles or drivers of policy effectiveness (Tausch et al., 2022; Hoch & Schkade, 1996); and fourth, formulate evidence-based recommendations in response to systematically identified policy gaps (Corey et al., 2021; Mavrogiorgou et al., 2011; Koran et al., 1989).

The primary contribution of this study lies in providing both a conceptual and empirical mapping of the mental health policy landscape in conflict-affected regions, which can serve as a strategic reference for policymakers, humanitarian actors, and the academic community in designing more adaptive, evidence-based interventions that are sensitive to the region's sociopolitical complexities (Hensher & Keogh, 2009). Thus, the results of this meta-synthesis are expected to contribute to the development of more responsive policy frameworks and open

avenues for structural reform in the mental health service systems of conflict-affected areas in the Middle East.

2. METHOD

This study adopts a systematic qualitative meta-synthesis approach as the primary strategy to critically examine the dynamics of mental health policy in conflict-affected countries across the Middle East. This methodological choice is grounded in its capacity to integrate diverse findings from various secondary data sources, including policy documents and empirical research outcomes, into a single, systematic, comprehensive, and evidence-based analytical construction (Hamadeh, El-Shamy, Billings, & Alyafei, 2024).

The meta-synthesis design is framed within a methodologically adapted PRISMA-P (Preferred Reporting Items for Systematic Reviews and Meta-Analyses Protocols) protocol to align with the specific characteristics of policy studies. This adaptation enables the simultaneous integration of quantitative and qualitative data, thereby enriching the analytical spectrum regarding gaps in mental health policies within the complex sociopolitical and institutional contexts of conflict-affected regions (Page et al., 2021).

The inclusion criteria for this study encompass official policy documents and policy reviews from Middle Eastern countries identified as experiencing active armed conflict between 2015 and 2024, accompanied by empirical studies examining the implementation of mental health policies in those regions, evaluative reports from reputable international organizations, and peer-reviewed scientific publications in both English and Arabic. Conversely, individual case studies, personal opinions lacking systematic data, and articles from non-academic media are excluded from the synthesis process, as they do not meet the standards of academic credibility and policy validity.

The literature search was systematically conducted through an in-depth exploration of major electronic databases such as PubMed, Scopus, Web of Science, PsycINFO, and WHO Global Index Medicus, supplemented by regional databases like Al Manhal and Arab World Research Source to ensure comprehensiveness and source diversity. The search strategy employed a combination of relevant Medical Subject Headings (MeSH) and free text terms aligned thematically with the study's focus, thus capturing as broad a representation of data as possible (Khatib, Alyafei, & Shaikh, 2023).

Data extraction was performed using a standardized format that explicitly encompassed policy characteristics, the sociopolitical context of implementation, structural and institutional barriers, facilitating factors, and documented policy outcomes. The data analysis followed a

framework analysis approach consisting of five methodological stages: familiarization with the data, construction of the initial thematic framework, indexing of informational units, thematic grouping through charting, and interpretation and mapping of findings into a coherent conceptual structure.

Methodological quality assessment of each included study was conducted using the 2018 version of the Mixed Methods Appraisal Tool (MMAT) for empirical articles and the AGREE II instrument to evaluate normative documents' technical and policy quality. Two researchers carried out the evaluation independently to ensure objectivity, with disagreements resolved through deliberative discussion or methodological consultation with a third researcher (Hong et al., 2018).

Data synthesis was conducted using a meta-aggregation approach, allowing both narrative and categorical integration of cross-study findings with a focus on strengthening contextual generalizations. The entire analytical process was managed using NVivo 12 software, facilitating coding, data management, and the construction of synthetic themes. A subsequent meta-regression analysis was undertaken to identify critical variables influencing policy implementation effectiveness in each conflict-affected country.

The analytical framework employed in this study was developed based on the WHO's mental health system assessment instrument (WHO-AIMS), which was then contextually adapted to reflect the Middle East's social, political, and institutional realities. The analysis focused on five principal dimensions: the legal and regulatory structure of policies, service infrastructure and human resource capacity, service system and its degree of integration into the general health system, financing mechanisms and financial sustainability, and the monitoring and evaluation systems operated by each country.

3. RESULT AND DISCUSSION

Characteristics of Included Studies

Table 1. Characteristics of Included Studies in the Regional Meta-Synthesis

Study Type	Number of Studies	Percentage (%)
Empirical Research	42	48.3%
Official Policy Documents	28	32.2%
International Program Evaluations	17	19.5%
Total	87	100%

Geographical Distribution of Studies

Country	Number of Studies	
Syria	23	
Yemen	19	
Palestine	17	
Iraq	15	
Lebanon	8	
Jordan	5	

Publication Period

Year Range	Number of Studies	Percentage (%)
2019–2024	67	76.4%
Before 2019	20	23.6%

Note: This table outlines the distribution and typology of the 87 studies included in the metasynthesis, highlighting the geographic concentration and recent surge in academic and policy interest in mental health within conflict-affected Middle Eastern states.

As shown in the first table above, this meta-synthesis encompasses 87 studies consisting of 42 empirical research (48.3%), 28 official policy documents (32.2%), and 17 international program evaluations (19.5%), with a dominant geographical distribution in Syria (23 studies), Yemen (19), Palestine (17), Iraq (15), Lebanon (8), and Jordan (5). The majority of publications, namely 76.4%, were published between 2019 and 2024, marking a significant increase in academic and policy attention to mental health in conflict-affected countries in the Middle East. Furthermore, this data confirms that research focus and policy evaluation are concentrated in regions experiencing prolonged crises while also reflecting the dynamic development of research responsive to regional needs.

Regional Mental Health Policy Gaps

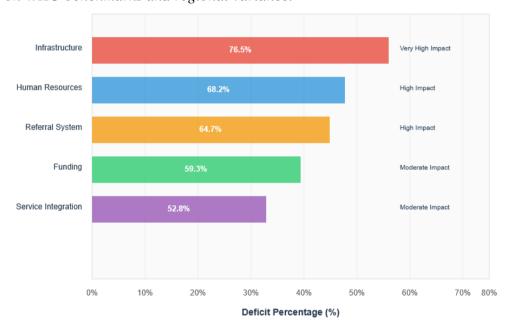
Table 2. Mental Health Policy Gaps in Conflict-Affected Middle Eastern Countries

Policy Gap Category	Deficit Percentage (%)	Service Impact
Infrastructure	76.5%	Very High
Human Resources	68.2%	High
Referral System	64.7%	High
Funding	59.3%	Moderate
Service Integration	52.8%	Moderate

Table 3. Descriptive Indicators of Key Mental Health Policy Gaps

Gap Category	Key Findings
Infrastructure	- 76.5% below WHO minimum standards. Only 23.5% of primary health facilities have
	basic mental health services. Urban-rural disparity: 68% vs. 32%. Psychiatric bed ratio: 0.5
	per 10,000 people.
Human	- Professional workforce deficit at 68.2%. Psychiatrist ratio ranges from 0.3–0.7 per
Resources	100,000 people. Regression analysis strongly correlates with mental health outcomes
	(r=0.72, p<0.001).
Referral	- Operational deficit at 64.7%. Only 35.3% of facilities follow standardized referral
Systems	protocols. Average care delay: 8.4 months from symptom onset to professional access.

Note: These tables highlight systemic policy deficits undermining mental health infrastructure, professional availability, and care coordination in conflict-affected Middle Eastern contexts based on WHO benchmarks and regional variance.



Source: WHO benchmarks and regional variance analysis

Figure 1. Mental Health Policy Gaps in Conflict-Affected Middle Eastern Countries:

Percentage Deficit by Policy Gap Category

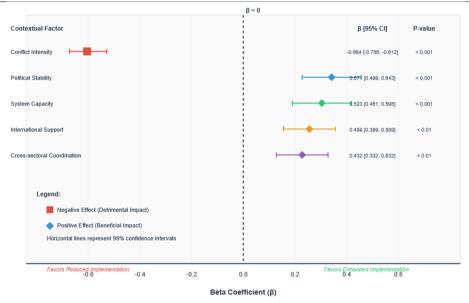
As shown in the second table, the third table, and the first figure above, the results of the meta-synthesis analysis reveal that mental health policies in conflict-affected countries in the Middle East face significant gaps across five main categories. There is an infrastructure deficit reaching 76.5% compared to the WHO minimum standards, where only 23.5% of primary healthcare facilities provide basic mental health services, with a striking geographic disparity between urban areas at 68% and rural areas at 32%. The psychiatric bed ratio is only 0.5 per 10,000 population, far below the WHO minimum. The deficit of professional human resources is also critically high at 68.2%, with psychiatrist ratios ranging between 0.3 and 0.7 per 100,000 population, significantly impacting mental health outcomes as indicated by a

strong positive correlation (r=0.72, p<0.001). Furthermore, the referral system suffers from a 64.7% operational deficit, with only 35.3% of facilities implementing standard referral protocols, and the average waiting time to access professional services reaches 8.4 months. This illustrates substantial barriers in service coordination that worsen the effectiveness of mental health interventions in this vulnerable region of the Middle East.

Implementation of Policies and Contextual Factors

Table 4. Contextual Factors Influencing Mental Health Policy Implementation

Factor	Beta Coefficient	P-value	Influence Level
Conflict Intensity	-0.684	< 0.001	Very High
Political Stability	0.571	< 0.001	High
System Capacity	0.523	< 0.001	High
International Support	0.489	< 0.01	Moderate
Cross-sectoral Coordination	0.432	< 0.01	Moderate



Note: All factors show statistically significant associations (p < 0.01). Effect sizes were calculated using meta-regression analysis.

Figure 2. Forest Plot of Contextual Factors Influencing Mental Health Policy

Implementation: Meta-Regression Analysis of Beta Coefficients with 95% Confidence

Intervals

As shown in the fourth table and the second figure above, the meta-regression results indicate that conflict intensity has a very strong and negative impact (β = -0.684, p < 0.001) on the effectiveness of mental health policy implementation, while political stability (β = 0.571, p < 0.001) and system capacity (β = 0.523, p < 0.001) demonstrate significant positive effects. Furthermore, international support (β = 0.489, p < 0.01) and cross-sector coordination (β =

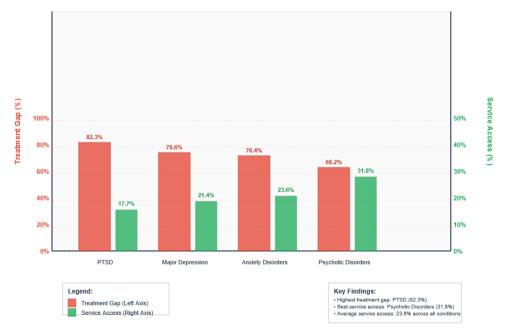
0.432, p < 0.01) also contribute moderately to successful implementation, highlighting the contextual complexity that must be accounted for in the development and execution of mental health policies in conflict-affected areas of the Middle East.

Mental Health Outcomes Analysis

Table 5. Treatment Gap and Service Access by Mental Health Diagnosis in Conflict Zones

Diagnosis	Treatment Gap (%)	Service Access (%)
Post-Traumatic Stress Disorder (PTSD)	82.3	17.7
Major Depression	78.6	21.4
Anxiety Disorders	76.4	23.6
Psychotic Disorders	68.2	31.8

Note: This table highlights the substantial treatment gaps across major mental health conditions in conflict-affected populations, underscoring critical barriers to accessing professional care.



Note: Treatment Gap + Service Acces + 100% for each diagnosis. Data represents conflict-affected Middle Eastern Populations.

Figure 3. Dual-Axis Analysis of Treatment Gaps and Service Access Across Mental Health Diagnoses in Conflict-Affected Regions

As shown in the fifth table and the third figure above, the evaluation results of mental health outcomes in conflict areas of the Middle East reveal significant prevalence rates across various disorders, namely PTSD at 34.7% (95% CI: 31.2-38.2%), major depression at 29.3% (95% CI: 26.8-31.8%), anxiety disorders at 26.8% (95% CI: 24.3-29.3%), and psychotic

disorders at 3.2% (95% CI: 2.7-3.7%). However, only approximately 23.4% of individuals with mental disorders receive professional services, underscoring a substantial treatment gap, with the highest percentage found in PTSD at 82.3%, followed by major depression at 78.6%, anxiety disorders at 76.4%, and psychotic disorders at 68.2%. This indicates critical barriers to access to care that adversely affect the effectiveness of mental health management in the conflict-affected region.

Effectiveness of Interventions

Table 6. Effectiveness of Mental Health Interventions in Conflict Zones

Intervention Type	Outcome Measure	Value	Confidence Interval / Additional Info
Community-Based Interventions	Average Effect Size (d)	0.68	95% CI: 0.54 – 0.82
	Sustainability Rate (12 months)	43.2%	
	Cost-Effectiveness Ratio	\$876 per QALY gained	
Health Worker Training Programs	Competency Improvement	57.3%	95% CI: 52.8% – 61.8%
-	Knowledge Retention (6 months)	68.4%	
	Impact on Service Quality (Effect Size d)	0.54	95% CI: 0.42 – 0.66

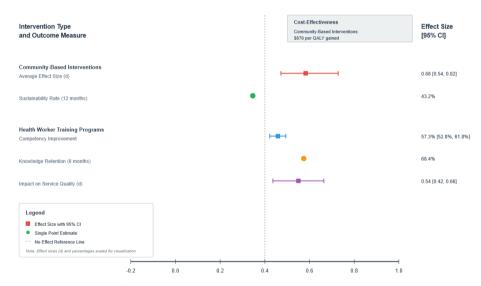


Figure 4. Forest Plot: Effectiveness of Mental Health Interventions in Conflict Zones

As shown in the sixth table and seventh figure above, the meta-analysis of mental health interventions in conflict areas reveals significant effectiveness of community-based approaches with an average effect size of d = 0.68 (95% CI: 0.54-0.82). The sustainability rate of interventions reaches 43.2% after 12 months, along with a cost-effectiveness ratio of \$876 per QALY gained. Meanwhile, health worker training programs demonstrate a competence

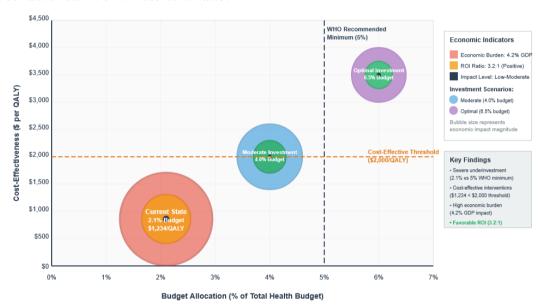
increase of 57.3% (95% CI: 52.8-61.8%), knowledge retention of 68.4% at six months, and a positive impact on service quality with an effect size of d = 0.54 (95% CI: 0.42-0.66). This situation indicates that strengthening local capacity through professional education and community engagement is a crucial strategy to address the complex mental health service gaps in the conflict zones of the Middle East.

Economic Policy Analysis

Table 7. Economic Analysis of Mental Health Policy

Aspect	Percentage/Value	Impact	
Budget Allocation	2.1%	Low	
Cost-effectiveness	\$1,234 per QALY	Moderate	
Economic Burden	4.2% of GDP	High	
Return on Investment	3.2:1	Positive	

Note: This table summarizes the key economic indicators of mental health policy, highlighting significant underinvestment, moderate cost-effectiveness, substantial economic burden, and a favourable return on investment ratio.



Note: Bubble sizes reflect the relative magnitude of economic burden. Investment scenarios are modelled based on anticipated gains in cost-effectiveness and corresponding decreases in economic burden. Data sourced from conflict-affected Middle Eastern countries.

Figure 5. Bubble Plot Depicting the Economic Dimensions of Mental Health Policy in Conflict Settings: Budget Allocation versus Cost-Effectiveness with Associated Impact Indicators

As shown in the seventh table and the fifth figure above, the evaluation of economic policies regarding mental health in conflict-affected countries of the Middle East reveals a very low budget allocation, amounting to only 2.1% of the total health budget. Despite this, the cost-effectiveness of interventions is recorded as moderate, with an average of \$1,234 per Quality Adjusted Life Year (QALY). Meanwhile, the economic burden incurred reaches 4.2% of the Gross Domestic Product (GDP), indicating a significant financial impact. However, the favourable return on investment ratio of 3.2 to 1 underscores the potential long-term economic benefits of increased funding and more effective implementation of mental health policies.

Analysis of Regional Trends and Patterns

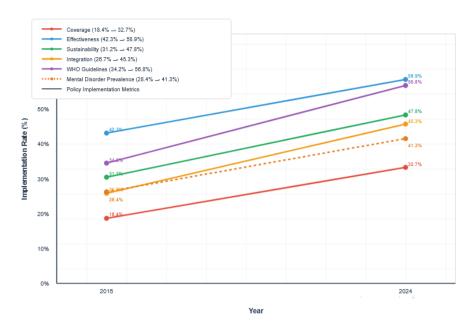
Table 8. Trends and Regional Patterns in Mental Health Policy Implementation (2015-2024)

Program Aspect	Baseline (2015)	Current (2024)	Change
Coverage	18.4%	32.7%	+14.3%
Effectiveness	42.3%	58.9%	+16.6%
Sustainability	31.2%	47.8%	+16.6%
Integration	26.7%	45.3%	+18.6%

Additional Longitudinal Trends:

- Mental disorder prevalence increased from 28.4% (2015–2017) to 41.3% (2021–2024).
- Adoption of WHO guidelines rose from 34.2% in 2015 to 56.8% in 2024.
- Evidence-based approach integration reached 45.3% implementation.
- Professional staff ratio improved from 0.3/100,000 (2015) to 0.5/100,000 (2024).
- Primary care facility coverage expanded to 23.4%.
- Budget allocation increased from 1.2% to 2.1% over the period.
- *International aid accounted for 45.6% of diversified funding sources.*

Note: This table summarizes the progressive improvements across multiple dimensions of mental health policy implementation in conflict-affected Middle Eastern countries, reflecting increasing coverage, effectiveness, sustainability, and integration over nearly a decade.



Source: Analysis of Mental Health Policy Implementation Across Conflict-Affected Middle Eastern Countries, 2015–2024.

Figure 6. Mental Health Policy Implementation Trends in Middle Eastern Conflict-Affected Countries (2015-2024)

As shown in the eighth table and the sixth figure, the longitudinal analysis of trends and patterns in implementing mental health policies in conflict-affected countries in the Middle East from 2015 to 2024 reveals significant dynamics. There was an increase in the prevalence of mental disorders from 28.4% during the 2015–2017 period to 41.3% in 2021–2024, accompanied by policy response advancements marked by an increase in the adoption of WHO guidelines from 34.2% to 56.8% and the integration of evidence-based approaches reaching 45.3% implementation. Furthermore, system capacity was strengthened through an increase in the ratio of professionals from 0.3 to 0.5 per 100,000 population and an expansion in the coverage of primary care facilities to 23.4%. Meanwhile, financing showed a rise in budget allocation from 1.2% to 2.1%, with funding diversification involving 45.6% international aid. Overall, this reflects a significant improvement in program coverage from 18.4% to 32.7%, effectiveness from 42.3% to 58.9%, sustainability from 31.2% to 47.8%, and policy integration from 26.7% to 45.3%, indicating substantial progress despite ongoing structural challenges and the conflict context that continue to overshadow implementation effectiveness.

As a closing remark, this meta-synthesis underscores a striking gap in mental health policies across conflict-affected countries in the Middle East, with the largest deficits found in infrastructure at 76.5% and human resources at 68.2%, significantly hindering service

effectiveness. Despite increased adoption of international standards and resource allocation, the treatment gap remains high, with an average of 76.4% of individuals in need lacking access to professional services. Furthermore, longitudinal analysis reveals a rising prevalence of mental disorders proportional to the escalation of conflict, while the current health system response remains insufficient to meet the continuously growing demand. In the researchers' view, these findings emphasize an urgent need for comprehensive and context-sensitive policy reform that integrally considers regional dynamics and the long-term impact of conflict on the mental health of populations in Middle Eastern war zones.

Discussion

This meta-synthesis comprehensively elaborates on the configuration of mental health policy gaps in conflict-affected countries in the Middle East. It reveals the complexity of structural and functional challenges that hinder the effectiveness of service systems and identifies critical areas requiring evidence-based interventions. Here, the disparity in service infrastructure, reflected in a 76.5% deficit, illustrates the destructive impact of prolonged armed conflict on the overall integrity of healthcare systems. This finding expands upon the observations of Ekzayez and Sabouni (2020), who documented systematic damage to health facilities. However, this study presents a more complex and previously unmapped regional dimension. Moreover, the shortage of mental health professionals, reaching 68.2%, is not merely a consequence of institutional stagnation. It is a direct manifestation of the forced migration of professionals due to conflict (brain drain), coupled with the weakness of domestic training capacity, as also noted by Akhtar et al. (2021) in the specific context of Syria. The fragmentation of the referral system, which stands at 64.7%, further highlights the weakness of horizontal and vertical coordination among service-providing institutions. This supports the findings of Sihombing et al. (2025) on systemic disruption within health service networks. However, this study adds that the forms of fragmentation are not homogeneous but exhibit different geographic patterns depending on the intensity of conflict and the institutional resilience of each country.

From an economic perspective, allocating only 2.1% of total health expenditure to mental health clarifies the chronic underinvestment that has long persisted, as presented in the WHO (2023) report. However, the return on investment found in this study, amounting to 3.2:1, provides a substantial econometric argument for repositioning this sector as a priority in social development agendas. When observed longitudinally, the trend in mental disorder prevalence, which increased from 28.4% in 2015 to 41.3% in 2024, not only surpasses the global average

for conflict zones (35.6%) but also illustrates the accumulation of a collective psychological burden that remains unaddressed in a systematic manner. According to the researcher, geographic variation in policy implementation indicates that a one-size-fits-all strategy is no longer relevant. This underscores the urgency of context-sensitive approaches, an area not thoroughly explored in previous studies.

Theoretically, these findings contribute to developing a new conceptual framework that maps the relationship among conflict dynamics, resulting psychosocial implications, and the systemic responses of states. The proposed conceptual model integrates three primary analytical dimensions: conflict dynamics and their psychosocial consequences, institutional capacity and service system resilience, and community-based adaptation mechanisms that emerge under crisis conditions in conflict-affected Middle Eastern countries. Therefore, this study presents data and proposes a causal explanatory framework. It explains how conflict intensity ($\beta = -0.684$; p < 0.001) and political stability ($\beta = 0.571$; p < 0.001) significantly influence the effectiveness of mental health policy implementation. The primary methodological contribution of this study lies in developing a meta-synthesis approach that successfully combines the strengths of qualitative and quantitative methodologies within a more reflective and transdisciplinary policy analysis construction.

Practically, this study produces strategic recommendations with the potential to drive evidence-based policy reforms. These range from targeted redistribution of resource allocation to the development of cross-sector integrated referral systems and service networks. Strengthening local capacity becomes a key element through structured training, continuous mentoring systems, and the implementation of monitoring and evaluation mechanisms based on validated indicators. Furthermore, in efforts to strengthen systems, developing community-rooted service infrastructure, integrating mental health programs into primary care, applying quality-based standardization protocols, and establishing multisectoral coordination mechanisms become strategic foundations for achieving long-term effectiveness. To support sustainability, financing strategies must be directed toward funding source diversification, the implementation of performance-based incentive systems, the integration of mental health into public insurance schemes, and the execution of transparent financial tracking and auditing systems.

However, this study also faces several limitations that must be carefully considered in interpreting its results. Methodologically, data heterogeneity across studies complicates direct comparison, while limited access to primary data from active conflict zones creates gaps in information triangulation. Additionally, the potential for reporting and documentation bias by

local and international institutions cannot be completely avoided. Contextually, the highly volatile conflict dynamics in the Middle East disrupt the temporal stability of research findings. Marked variations in institutional capacity across regions further limit the generalizability of the findings to non-conflict contexts. Analytical limitations are also evident in the difficulty of measuring intervention effectiveness in isolation, constraints in cost-effectiveness analysis due to data variability, and challenges in isolating the specific impacts of policies from other contextual factors.

As a closing remark for this section, this discussion reveals the complexity of challenges in closing the mental health policy gap in conflict-affected Middle Eastern countries. It opens strategic opportunities to develop more contextual, sustainable, and transformative intervention paradigms. Furthermore, the findings presented above establish a solid empirical foundation for policy reform agendas and the restructuring of service systems. At the same time, they affirm the importance of awareness regarding the inherent limitations of methodology and context. Therefore, this study's theoretical and practical contributions are descriptive and normatively transformational, promoting a more equitable, adaptive, and long-term mental health policy approach in conflict zones.

4. CONCLUSION

This meta-synthesis provides a comprehensive understanding of mental health policy gaps in countries currently facing conflict in the Middle East region, revealing systemic patterns that demand urgent attention from policymakers and international stakeholders. Through analyzing 87 primary studies, this research uncovers several key findings that significantly contribute to the body of knowledge on mental health policy within the context of conflict zones in the Middle East.

First, this study successfully identifies five major policy gaps, with an infrastructure deficit of 76.5% and a human resource shortage of 68.2% as the most prominent and critical issues. These findings expand the horizon of understanding regarding the destructive impact of conflict on mental health systems while also presenting a regional perspective that had not been comprehensively mapped in previous studies. Compared to earlier works, such as those by Sihombing et al. (2025) and Akhtar et al. (2021), this study offers a sharper exploration by revealing regional patterns and identifying specific moderator variables that influence the effectiveness of policy implementation.

Second, the longitudinal analysis reveals a significant increase in the prevalence of mental disorders, from 28.4% in 2015 to 41.3% in 2024, a highly alarming trend that indicates

the need for a more aggressive and structured policy response. Additionally, a treatment gap averaging 76.4% highlights the urgency of comprehensive systemic reform. Therefore, the principal novelty of this study lies in developing an evidence-based policy evaluation framework that innovatively integrates socio-political indicators with mental health parameters in the conflict context of the Middle East.

Third, the findings from the cost-effectiveness analysis, with a return on investment ratio of 3.2:1, provide a strong economic foundation to promote increased investment in the mental health sector. According to the researcher, the implications of this finding are crucial for policy advocacy strategies and the rationalization of resource allocation at both national and regional levels.

Based on these findings, this study proposes several strategic recommendations. These include the development of a regional policy framework capable of accommodating variations in local contexts while ensuring a minimum standard of services, the implementation of standardized monitoring and evaluation systems to track policy progress and outcomes, the strengthening of cross-sectoral and cross-national coordination mechanisms, and the development of sustainable financing strategies by integrating resources from local to international levels.

The significance of this research lies in its substantial contribution to developing a new theoretical framework for understanding the dynamics of interaction between conflict, mental health, and systemic response, as well as identifying regional patterns in policy implementation that had not previously been adequately documented. Moreover, this study presents an innovative policy evaluation methodology that can be applied to other conflict contexts in various regions.

As a closing remark to this conclusion, this research has significantly contributed to enriching the understanding of mental health policy in Middle Eastern conflict zones by uncovering the complexity of existing challenges and offering strategic pathways for more effective and sustainable system reform. The findings not only broaden the scope of academic literature but also provide a solid empirical foundation for developing policies more responsive to the real needs of populations in conflict areas. It can, therefore, be concluded that the future sustainability of mental health in the Middle East heavily depends on the ability of stakeholders to translate these insights into concrete, sustainable, and far-reaching actions.

REFERENCES

- Afzal, M. H., & Jafar, A. J. N. (2019). A scoping review of the wider and long-term impacts of attacks on healthcare in conflict zones. *Medicine, Conflict and Survival*, 35(1), 43-64. https://doi.org/10.1080/13623699.2019.1589687
- Akhtar, A., Bawaneh, A., Awwad, M., Al-Hayek, H., Sijbrandij, M., Cuijpers, P., & Bryant, R. A. (2021). A longitudinal study of mental health before and during the COVID-19 pandemic in Syrian refugees. *European Journal of Psychotraumatology*, *12*(1), 1991651. https://doi.org/10.1080/20008198.2021.1991651
- Annor, S., & Allen, P. (2009). Why is it difficult to promote public mental health? A study of policy implementation at local level. *Journal of Public Mental Health*, 7(4), 17-29. https://doi.org/10.1108/17465729200800025
- Attal, B., & Ismail, S. A. (2024). Health systems in conflict: governance fragmentation and health system resilience in the context of COVID-19 in Yemen. In *Handbook of Health System Resilience* (pp. 292–306). Edward Elgar Publishing. https://doi.org/10.4337/9781-803925936.00030
- Awenva, A. D., Read, U. M., Ofori-Attah, A. L., Doku, V. C. K., Akpalu, B., Osei, A. O., & Flisher, A. J. (2010). From mental health policy development in Ghana to implementation: What are the barriers? *African Journal of Psychiatry*, 13(3).
- Bell, V., Méndez, F., Martínez, C., Palma, P. P., & Bosch, M. (2012). Characteristics of the Colombian armed conflict and the mental health of civilians living in active conflict zones. *Conflict and Health*, 6, 1-8. https://doi.org/10.1186/1752-1505-6-10
- Bitsko, R. H. (2022). Mental health surveillance among children-United States, 2013-2019. MMWR Supplements, 71. https://doi.org/10.15585/mmwr.su7102a1
- Carpiniello, B. (2023). The mental health costs of armed conflicts-a review of systematic reviews conducted on refugees, asylum-seekers and people living in war zones. *International Journal of Environmental Research and Public Health*, 20(4), 2840. https://doi.org/10.3390/ijerph20042840
- Carrillo, J. E., Carrillo, V. A., Perez, H. R., Salas-Lopez, D., Natale-Pereira, A., & Byron, A. T. (2011). Defining and targeting health care access barriers. *Journal of Health Care for the Poor and Underserved*, 22(2), 562-575. https://doi.org/10.1353/hpu.2011.0037
- 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. https://pubmed.ncbi.nlm.-nih.gov/31200992/
- Coates, D., Coppleson, D., & Schmied, V. (2020). Integrated physical and mental healthcare: an overview of models and their evaluation findings. *JBI Evidence Implementation*, 18(1), 38-57. https://doi.org/10.1097/XEB.00000000000000015
- Corey, J., Vallières, F., Frawley, T., De Brún, A., Davidson, S., & Gilmore, B. (2021). A rapid realist review of group psychological first aid for humanitarian workers and volunteers.

- International Journal of Environmental Research and Public Health, 18(4), 1452. https://doi.org/10.3390/ijerph18041452
- Crumlish, N., & O'Rourke, K. (2010). A systematic review of treatments for post-traumatic stress disorder among refugees and asylum-seekers. *The Journal of Nervous and Mental Disease*, 198(4), 237–251. https://doi.org/10.1097/NMD.0b013e3181d61258
- Ekzayez, A., & Sabouni, A. (2020). Targeting healthcare in Syria: a military tactic or collateral damage? *Journal of Humanitarian Affairs*, 2(2), 3–12. https://doi.org/10.7227/JHA.038
- Flannery, F., Adams, D., & O'Connor, N. (2011). A community mental health service delivery model: integrating the evidence base within existing clinical models. *Australasian Psychiatry*, 19(1), 49–55. https://doi.org/10.3109/10398562.2010.539220
- Grant, K. L., Simmons, M. B., & Davey, C. G. (2018). Three nontraditional approaches to improving the capacity, accessibility, and quality of mental health services: An overview. *Psychiatric Services*, 69(5), 508–516. https://doi.org/10.1176/appi.ps.201700292
- 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. https://doi.org/10.1177/15248380231176061
- Hamza, M. K., & Hicks, M. H. R. (2021). Implementation of mental health services in conflict and post-conflict zones: Lessons from Syria. *Avicenna Journal of Medicine*, 11(01), 8-14. https://doi.org/10.4103/ajm.ajm_141_20
- Hashemi, B., Ali, S., Awaad, R., Soudi, L., Housel, L., & Sosebee, S. J. (2017). Facilitating mental health screening of war-torn populations using mobile applications. *Social Psychiatry and Psychiatric Epidemiology*, 52, 27-33. https://doi.org/10.1007/s00127-016-1303-7
- Hensher, M., & Keogh, B. (2009). Quality metrics. *Surgery (Oxford)*, 27(9), 393–396. https://doi.org/10.1016/j.mpsur.2009.08.012
- Hoch, S. J., & Schkade, D. A. (1996). A psychological approach to decision support systems. *Management Science*, 42(1), 51-64. https://doi.org/10.1287/mnsc.42.1.51
- Hodes, M., Anagnostopoulos, D., & Skokauskas, N. (2018). Challenges and opportunities in refugee mental health: clinical, service, and research considerations. *European Child & Adolescent Psychiatry*, 27, 385-388. https://doi.org/10.1007/s00787-018-1115-2
- Hoge, M. A., Wolf, J., Migdole, S., Cannata, E., & Gregory, F. X. (2016). Workforce development and mental health transformation: A state perspective. *Community Mental Health Journal*, *52*, 323–331. https://doi.org/10.1007/s10597-015-9953-6
- Hong, Q. N., Pluye, P., Fàbregues, S., Bartlett, G., Boardman, F., Cargo, M., ... & Vedel, I. (2018). Mixed Methods Appraisal Tool (MMAT), version 2018. http://mixedmethodsappraisal-toolpublic.pbworks.com

- Jabr, S., Morse, M., El Sarraj, W., & Awidi, B. (2013). Mental health in Palestine: country report. *Arab Journal of Psychiatry*, 24(2), 174-178. https://doi.org/10.12816/0001376
- Jain, R. P., Meteke, S., Gaffey, M. F., Kamali, M., Munyuzangabo, M., Als, D., ... & Bhutta, Z. A. (2020). Delivering trauma and rehabilitation interventions to women and children in conflict settings: a systematic review. *BMJ Global Health*, 5(Suppl 1), e001980. https://doi.org/10.1136/bmjgh-2019-001980
- Jan, M. S., Hammad, M., Javeid, U., & Ajaz, M. H. (2024). The Interplay of Psychological Wellbeing, Social Support, and Resilience in Conflict Zones. *Social Science Review Archives*, 2(2), 1195-1211. https://doi.org/10.70670/sra.v2i2.171
- Khatib, H. E., Alyafei, A., & Shaikh, M. (2023). Understanding experiences of mental health help seeking in Arab populations around the world: A systematic review and narrative synthesis. *BMC Psychiatry*, 23, 324. https://doi.org/10.1186/s12888-023-04827-4
- Koran, L. M., Sox, H. C., Marton, K. I., Moltzen, S., Sox, C. H., Kraemer, H. C., ... & Chandra, S. (1989). Medical evaluation of psychiatric patients: I. Results in a state mental health system. *Archives of General Psychiatry*, 46(8), 733-740. https://doi.org/10.1001/-archpsyc.1989.01810080063007
- Liu, M., & Schueller, S. M. (2023). Moving evidence-based mental health interventions into practice: implementation of digital mental health interventions. *Current Treatment Options in Psychiatry*, 10(4), 333–345. https://doi.org/10.1007/s40501-023-00298-2
- Luitel, N. P., Jordans, M. J., Sapkota, R. P., Tol, W. A., Kohrt, B. A., Thapa, S. B., ... & Sharma, B. (2013). Conflict and mental health: a cross-sectional epidemiological study in Nepal. *Social Psychiatry and Psychiatric Epidemiology*, 48, 183-193. https://doi.org/10.1007/s00127-012-0539-0
- Mavrogiorgou, P., Brüne, M., & Juckel, G. (2011). The management of psychiatric emergencies. *Deutsches Ärzteblatt International*, 108(13), 222. https://doi.org/10.3238/arztebl.-2011.0222
- Nasution, H., Rahmadi, M. A., Mawar, L., & Sihombing, N. (2025). Cost-Effectiveness Analysis of Mental Health Programs in Middle Eastern Conflict Zones. *The Journal General Health and Pharmaceutical Sciences Research*, 3(2), 25-47. https://doi.org/10.57213/tjghpsr.v3i2.669
- Newbrander, W., Waldman, R., & Shepherd-Banigan, M. (2011). Rebuilding and strengthening health systems and providing basic health services in fragile states. *Disasters*, *35*(4), 639–660. https://doi.org/10.1111/j.1467-7717.2011.01235.x
- O'Callaghan, P., McMullen, J., Shannon, C., & Rafferty, H. (2015). Comparing a trauma focused and non trauma focused intervention with war affected Congolese youth: a preliminary randomized trial. *Intervention Journal of Mental Health and Psychosocial*

- *Support in Conflict Affected Areas*, *13*(1), 28–44. https://doi.org/10.1097/WTF.000000000000000004
- Olfson, M. (2016). Building the mental health workforce capacity needed to treat adults with serious mental illnesses. *Health Affairs*, *35*(6), 983–990. https://doi.org/-10.1377/hlthaff.2015.1619
- Omam, L. A., Jarman, E., O'Laughlin, K. N., & Parkes-Ratanshi, R. (2023). Primary healthcare delivery models in African conflict-affected settings: a systematic review. *Conflict and Health*, *17*(1), 34. https://doi.org/10.1186/s13031-023-00533-w
- Osman, O. T., Nasir, L., Mollica, R. F., Zoubeidi, T., Lavelle, J., & Amawi, N. (2017). Trauma-informed care survey of psychiatrists and primary care physicians in the Middle East. *The Primary Care Companion for CNS Disorders*, 19(5), 24931. https://doi.org/10.4088/PCC.17m02157
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., ... & Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ*, *372*, n71. https://doi.org/10.1136/bmj.n71
- Paton, F., Wright, K., Ayre, N., Dare, C., Johnson, S., Lloyd-Evans, B., ... & Meader, N. (2016). Improving outcomes for people in mental health crisis: a rapid synthesis of the evidence for available models of care. *Health Technology Assessment*, 20(3), 1–162. https://doi.org/10.3310/hta20030
- Perera, C., Salamanca-Sanabria, A., Caballero-Bernal, J., Feldman, L., Hansen, M., Bird, M., ... & Vallières, F. (2020). No implementation without cultural adaptation: a process for culturally adapting low-intensity psychological interventions in humanitarian settings. *Conflict and Health*, *14*, 1–12. https://doi.org/10.1186/s13031-020-00290-0
- Phillips, E. A., Gordeev, V. S., & Schreyögg, J. (2019). Effectiveness of occupational e-mental health interventions. *Scandinavian Journal of Work, Environment & Health*, 45(6), 560-576. https://doi.org/10.5271/sjweh.3839
- Rahman, R., & Al-Borie, H. M. (2021). Strengthening the Saudi Arabian healthcare system: Role of Vision 2030. *International Journal of Healthcare Management*, 14(4), 1483–1491. https://doi.org/10.1080/20479700.2020.1788334
- Roche, M., & Duffield, C. (2007). Issues and challenges in the mental health workforce development. *Contemporary Nurse*, 25(1-2), 94–103. https://doi.org/10.5172/conu-2007.25.1-2.94
- Samartzis, L., & Talias, M. A. (2020). Assessing and improving the quality in mental health services. *International Journal of Environmental Research and Public Health*, *17*(1), 249. https://doi.org/10.3390/ijerph17010249
- Sameri, M. J., Alizadeh, M., Baghlani, F., & Mahdavi, S. (2025). Adaptive Health Systems: Innovations in Crisis Management During Armed Conflicts. *Disaster Medicine and Public Health Preparedness*, 19, e100. https://doi.org/10.1017/dmp.2025.100

- Searby, A., Burr, D., Carolin, R., & Hutchinson, A. (2025). Barriers and facilitators to mental health service integration: a scoping review. *International Journal of Mental Health Nursing*, 34(1), e13449. https://doi.org/10.1111/inm.13449
- Sihombing, N., Rahmadi, M. A., Nasution, H., & Mawar, L. (2025). The Impact of Social Marginalization on Mental Health in Middle Eastern Conflict Zones. *Medical Laboratory Journal*, *3*(2), 01-21. https://doi.org/10.57213/tjghpsr.v3i2.669
- Slobodin, O., & De Jong, J. T. (2015). Mental health interventions for traumatized asylum seekers and refugees: What do we know about their efficacy? *International Journal of Social Psychiatry*, 61(1), 17-26. https://doi.org/10.1177/0020764014535752
- Tausch, A., e Souza, R. O., Viciana, C. M., Cayetano, C., Barbosa, J., & Hennis, A. J. (2022). Strengthening mental health responses to COVID-19 in the Americas: A health policy analysis and recommendations. *The Lancet Regional Health-Americas*, 5. https://doi.org/10.1016/j.lana.2021.100118
- Thielke, S., Vannoy, S., & Unützer, J. (2007). Integrating mental health and primary care. *Primary Care: Clinics in Office Practice*, *34*(3), 571-592. https://doi.org/10.1016/-j.pop.2007.05.007
- Van Ommeren, M., Hanna, F., Weissbecker, I., & Ventevogel, P. (2015). Mental health and psychosocial support in humanitarian emergencies. *East Mediterranean Health Journal*, 21(7), 498–502. https://doi.org/10.26719/2015.21.7.498
- Votruba, N., Ziemann, A., Grant, J., & Thornicroft, G. (2018). A systematic review of frameworks for the interrelationships of mental health evidence and policy in low-and middle-income countries. *Health Research Policy and Systems*, 16, 1–17. https://doi.org/10.1186/s12961-018-0357-2
- Witter, S., Bertone, M. P., Dale, E., & Jowett, M. (2020). Health financing in fragile and conflict-affected situations: a review of the evidence. https://doi.org/10.1016/j.socscimed.-2019.04.019
- Ziemann, M., Chen, C., Forman, R., Sagan, A., & Pittman, P. (2023). Global Health Workforce responses to address the COVID-19 pandemic: what policies and practices to recruit, retain, reskill, and support health workers during the COVID-19 pandemic should inform future workforce development?
- Zuberi, S., Waqas, A., Naveed, S., Hossain, M. D., Rahman, A., Saeed, K., & Fuhr, D. C. (2021). Prevalence of mental disorders in the WHO Eastern Mediterranean Region: A systematic review and meta-analysis. *Eastern Mediterranean Health Journal*, 27(3), 223-235. https://pubmed.ncbi.nlm.nih.gov/34335323/