A systematic review of mental health of women in fragile and humanitarian settings of the Eastern Mediterranean Region

Fauziah Rabbani^{1,2}, Aysha Zahidie², Amna Siddiqui², Sanam Shah², Zul Merali¹, Khalid Saeed³ and Mohamed Afifi³

¹Brain and Mind Institute, Aga Khan University, Karachi, Pakistan. ²Department of Community Health Sciences, Aga Khan University, Stadium Road, Karachi, Pakistan (Correspondence to Fauziah Rabbani: fauziah.rabbani@aku.edu). ³World Health Organization Regional Office for the Eastern Mediterranean, Cairo, Egypt.

Abstract

Background: The increasing emergencies and humanitarian challenges have worsened the mental health condition of women in the Eastern Mediterranean Region.

Aim: To assess the prevalence, determinants and interventions to address mental health among women in fragile and humanitarian settings in the Eastern Mediterranean Region.

Methods: Using the Preferred Reporting Items for Systematic Review and Meta-analysis guidelines, we reviewed 59 peer-reviewed published studies (PubMed, IMEMR) and grey literature (WHO/IRIS) from January 2001 to February 2023, focusing on women's mental health in the Eastern Mediterranean Region. We then conducted a descriptive analysis of the sociodemographic characteristics.

Results: Among the 59 studies reviewed, only 13 of the 48 peer-reviewed studies focused primarily on women's mental health, 11 grey literature records mostly presented grouped regional data, 11 of the 25 studies on mental health among migrants were about those taking refuge in high-income countries. The average prevalence of mental disorders from 32 cross-sectional studies on women aged 12–75 years was 49%, average prevalence of anxiety was 68%, post-traumatic stress disorder was 52%, and depression was 43%. Women exhibited higher level depression than men. Age, educational disparities, and limited access to services were important risk factors for mental health disorder. Several promising interventions emerged.

Conclusion: More efforts should be made to provide customized, context-specific solutions to the mental health challenges of women in humanitarian and fragile settings in the Eastern Mediterranean Region, including allocation of more resources to mental health programmes, addressing barriers, enhancing mental health surveillance, and reduction of stigma.

Keywords: Humanitarian, emergency, conflict, mental health, mental disorder, depression, post-traumatic stress, women, Eastern Mediterranean Citation: Rabbani F, Zahidie A, Siddiqui A, Shah S, Merali Z, Saeed K, Afifi M. A systematic review of mental health of women in fragile and humanitarian settings of the Eastern Mediterranean Region. East Mediterr Health J. 2024;30(5):369–379. https://doi.org/10.26719/2024.30.5.369.

Received: 30/10/23; Accepted: 20/03/24

Copyright: © Authors 2024; Licensee: World Health Organization. EMHJ is an open access journal. All papers published in EMHJ are available under the Creative Commons Attribution Non-Commercial ShareAlike 3.0 IGO licence (CC BY-NC-SA 3.0 IGO; https://creativecommons.org/licenses/by-nc-sa/3.0/igo).

Introduction

The Eastern Mediterranean Region (EMR) has experienced escalating humanitarian challenges due to unresolved fragile and complex situations for the last few decades. The WHO Regional Office for the Eastern Mediterranean (WHO/EMRO) manages 22 territories spanning from Morocco in the West to Pakistan in the East (1,2). More than half of globally displaced people originate from the EMR and 62 million people in the region have complex health needs (3).

Political instability, ongoing wars, conflicts, environmental changes and dual disease burden of infectious and chronic diseases are some factors driving these humanitarian emergencies (4–6). The consequences of long-term conflicts include trauma-related deaths and disabilities, gender-based violence and a notable increase in mental disorders such as depression, anxiety and post-traumatic stress (7). Poor health indicators within the EMR impede the achievement of the Sustainable Development Goals (SDGs) (8). SDG3 specifically deals with the health and wellbeing of all humans. Mental health is a fundamental human right that should be available to all humans regardless ot their citizenship (9). The global lifetime prevalence of mental disorders among adults (men and women) is estimated to be between 12 and 48% (10). A 2019 global study of mental health in found that mental disorders constituted 4.9 % of Disability-Adjusted Life-Years (DALYs) (11), with predicted loss to economic output projected at US\$ 6 trillion by 2030 (12).

In the EMR, current and lifetime prevalence of mental illnesses is highest for depression, followed by anxiety disorders, post-traumatic stress disorders (PTSD) and substance use disorders (13). Fragile and conflict areas have a higher prevalence of mental health conditions, with minimal financial and infrastructure related prioritisation of mental healthcare (14–16). In Pakistan, mental illnesses contribute to over 4% of the overall disease burden, with a higher prevalence among women. Estimates suggest that approximately 24 million individuals in Pakistan

require psychiatric support (13,14). However, the resources allocated for mental health screening and treatment are insufficient to meet the increasing demand. According to World Health Organization (WHO) data, Pakistan reports 0.19 psychiatrists per 100 000 people, one of the lowest figures in both WHO/EMRO and globally (17).

Women and persons in the age range from 25 to 49 are most at risk of mental health disorders; in fact, women are more likely to be affected among all age groups in the region (10). Women are particularly vulnerable to mental disorders or illness due to various factors, including sociocultural influences, violence, stress, poverty, conflict, migration and social inequality (18,19). Biological and life stage factors also contribute to mental health risks for women, such as hormonal influences and comorbidities such as osteoporosis, dementia or breast cancer (20–23).

Interventions addressing mental health in fragile and conflict settings are scarce, with the majority of research originating from high-income countries (24–27), which are generally not socio-culturally, economically or logistically applicable to our region. Research on women's mental health and other health interventions in the EMR is insufficient, and there has been minimal investment in cohesive policies aimed at enhancing mental health outcomes for women (28,29).

In this systematic review, we aimed to document the prevailing gap in women's mental health in fragile and conflict zones within the EMR. The review investigated risk factors and determinants influencing mental wellbeing and proposes strategies to improve women's mental health in these settings.

Methods

Study design and search strategy

This study was conducted in accordance with the Preferred Reporting Elements for Systematic Reviews and Meta-analysis (PRISMA) (30). Our research protocol,

including research questions, search strategy, study selection procedure and analytical approach was designed *a priori* and discussed with WHO/EMRO via an internal, unpublished document. We restricted our search to peer-reviewed and grey literature from January 2001 to February 2023. For initial screening of peer-reviewed documents, a systematic search was conducted in 2 electronic databases: PubMed/MEDLINE and Index Medicus. We conducted a manual search of grey literature using the WHO Institutional Repository for Information Sharing (WHO IRIS; https://apps.who. int/iris).

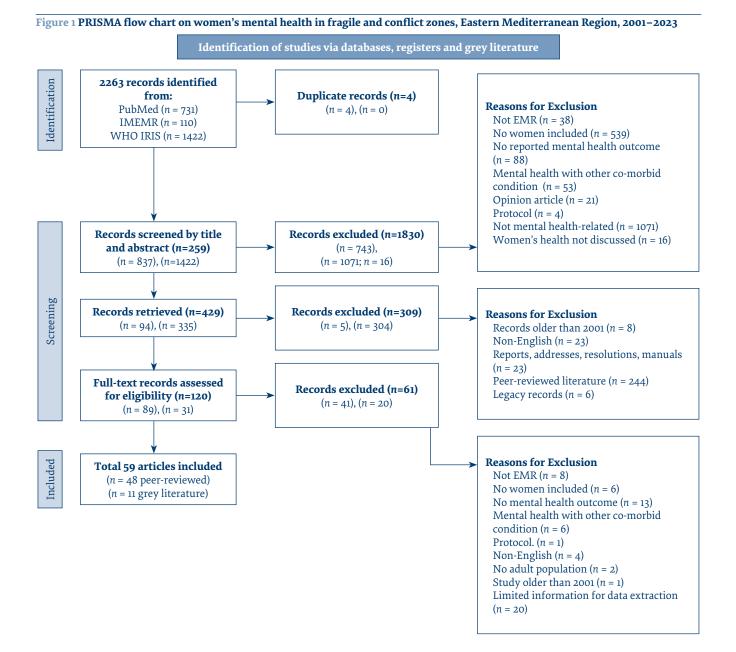
We organized our search terms under 6 categories: "population", "status", "situation", "outcome", "interventions", and "region". Table 1 presents a full list of search terms used under each category. Categorical search terms used for the peer reviewed literature were further adapted for retrieval of grey literature such as "Eastern Mediterranean Region," "women" and "mental health".

Study selection and inclusion criteria

We included documents published in English language that focused on mental health outcomes across the lifespan of women in the EMR (adolescents, adults and older individuals > 65) using any type of study design (review, cross-sectional, observational, or intervention). Studies on women's mental health providing information on disease burden, associated risk factors and/or describing interventions used to promote mental well-being were also considered eligible for screening and selection.

Figure 1 illustrates our study selection process. A pair of reviewers was assigned to each set of literature: peer-reviewed and grey. Relevant peer-reviewed citations were imported into Zotero reference management software. After removing duplicates, titles and abstracts were screened based on the inclusion criteria. For grey literature search in the WHO IRIS database, relevant publications that met the inclusion criteria were imported

Table 1 Search Terms used for Peer-Reviewed Literature	
Population	Female OR woman OR women OR reproductive age OR pregnant
Status	Refugee OR displace* OR internally displaced OR evacuee OR migrant OR foreigner OR immigrant OR ethnic minority OR indigenous OR asylum
Situation	Disaster OR humanitarian crisis OR earthquake OR flood OR drought OR starvation OR famine OR war OR conflict OR fragile
Outcome	depress* OR psych* OR disorder* OR behav* OR psychology OR psychotropic drug OR neuro* OR cognitive OR psychotherapy OR social problem OR anxiety OR attention OR emotion* OR neurobehavior* OR mental health OR stress OR alcohol OR abuse OR PTSD
Interventions	mental health services OR intervention OR trial OR ACT OR Assertive Community Treatment OR technique* OR cognitive OR self-help OR support* OR programme OR meditation OR CBT OR Cognitive behavioral therapy OR Self-affirmation OR session* OR thinking pattern* OR coping method* OR problem solving OR mindfulness OR breathing OR exercise* OR therapy OR assertiveness OR group* stimulus OR training OR spiritual* OR optimism OR behaviour OR behavior OR psychoeducation OR Construct OR awareness OR parenting
Region	EMRO OR WHO-EMRO OR Eastern Mediterranean Region OR Afghanistan OR Bahrain OR Djibouti OR Egypt OR Iran OR Republic of Iran OR Iraq OR Jordan OR Kuwait OR Lebanon OR Libya OR Morocco OR Palestine OR Occupied Palestine Territory OR GAZA OR Oman OR Pakistan OR Qatar OR Somalia OR Sudan OR Syrian Arab Syria Republic OR Tunisia OR United Arab Emirates UAE OR Yemen



into an Excel sheet. Duplicate removal was followed by screening of titles and abstracts.

Selected publications underwent full-text screening based on eligibility. We used Microsoft Excel to collate the data extracted from the manuscripts. Disagreements regarding article inclusion or exclusion were resolved using consensus by all reviewers for all selected documents. We then extracted the following data from each of the selected documents: study title, citation, country within EMR, document type, study location, study population, prevalence of reported mental health conditions, risk factors and/ or determinants, barriers, and facilitators for implementation of interventions or strategies, mental health outcomes of interest and key findings and conclusions. For peer-reviewed studies, study design or type, intervention type and risk of bias were also recorded. Our team of reviewers identified 841 articles from 2 peer-review database searches (PubMed: 731, IMEMR: 110). After removing 4 duplicates, 837 articles underwent title and abstract screening. Among them, 743 articles were excluded, while 5 could not be accessed, hence only 89 articles underwent full-text review. From the 89 articles, 41 were excluded, resulting in the final inclusion of 48 studies.

Our grey literature search retrieved 1 422 reports. After title screening, 1 071 records were excluded because they did not relate to mental health. Among the 351 remaining records that underwent title and abstract review, 16 were excluded because they did not specifically focus on women's mental health. The remaining 335 records were screened against eligibility criteria, leading to exclusion of 304 records. After full-text review, 31 records were included for data extraction. However, 20 of these grey documents could not provide the required data sets and therefore had to be excluded. Ultimately, 11 grey documents were included for detailed review and synthesis.

Quality assessment

Two of our reviewers used the STROBE (Strengthening The Reporting of Observational studies in Epidemiology) checklist (31) to conduct quality assessments for cross-sectional and cohort studies and the CONSORT (Consolidated Standards of Reporting Trails) statement to assess randomised control trials (32) within the selected peer-reviewed articles for potential bias. Inter-reviewer disagreements were resolved through group discussion and consensus.

Statistical analysis

We conducted a descriptive analysis of the sociodemographic characteristics. Using data from 32 cross-sectional studies, we calculated the total and specific average prevalence of each type of mental disorder. This involved multiplying the available percentage prevalence rates by the corresponding number of participants and then dividing the sum by the total number of participants. (33) We performed these calculations using Microsoft Excel software.

Results

Study characteristics

We included 59 studies (peer-reviewed n=48; grey literature n=11) in the final review and synthesis. We incorporated 32 cross-sectional studies, 5 randomised control trials, 2 quasi-experimental studies, 2 observational cohort studies, 2 reviews and 5 qualitative studies into our synthesis. We included 25 studies on mental health of refugees moving within (n=14) or outside the EMR (n=11). Overall, only 13 of the 48 peer-reviewed publications focused exclusively on mental health of women while 35 included both men and women as study participants.

Figure 2 shows the origins of peer-reviewed studies selected from the EMR (n=37): Afghanistan (n=5), Iraq (n=7), Jordan (n=9), Lebanon (n=5) and Pakistan (n=4). Crisis-affected women in the EMR had low educational attainment, unemployment, financial dependence and lack of social support networks. The study settings for the refugee population within the EMR included camps, community rehabilitation centres or clinics. For refugees residing outside the EMR, the settings were home or health facilities. Female study participants included in our selected peer-reviewed studies ranged from 12 to 75 years of age: (i) 12-18 (n=14); 18-60 (n=28); and (iii) 60–75 years (n=6).

Mental health prevalence and impact on women's lives

A majority of the selected studies focused on anxiety, PTSD, and depression as the primary outcomes of interest. Perinatal mental health disorders ranged from 16% to 36%, while postpartum depression was 56% (34). Studies addressed suicide (34–36), psychosis (34,37), substance abuse (36, 38–40) and stress-related syndromes (36, 41–43). Some studies explored perceived social rejection (44) and lower social functioning among women (45), as well as somatic symptoms and reduced health and psychological well-being (35,38,42,46). Mental disorders resulted in higher DALYs among women in the region than men. (5) Community-based studies in the EMR consistently indicate higher rates of common mental disorders among women (34). The total average prevalence of mental disorders among women, calculated from 32 cross-sectional studies, was 49.27%. Specifically, the average prevalence of anxiety was 68.00%, PTSD was 52.06%, and depression was 43.37%.

Risk factors associated with mental health conditions in the EMR

From our synthesis, we categorized risk factors associated with mental health conditions among women in the EMR into a 3-part socio-ecological framework: (i) intrapersonal; (ii) interpersonal and (iii) systemic factors (47).

(i) Intrapersonal risk such as age, disability, physical injuries, limited access to primary healthcare, literacy, economic independence, vulnerability, personal resilience, self-confidence and access to social support were salient intrapersonal risk factors for women's mental health in the EMR (38,48-53). Women's mental health and marital life were negatively affected by stigma related to seeking therapy, stress, deprivation, religious or spiritual beliefs, ongoing conflicts and humanitarian crises, leading to increases in symptoms such as despair and lack of emotional well-being (36,41,49,54-59). Women older than 40 years showed higher severity of mental illnesses like depression and PTSD, than women younger than 40 years (53,60). Irrespective of this trend, unmarried women younger than 40 years also reported feeling negative emotions like 'fear', 'frustration', and 'anger' (55).

(ii) Interpersonal: Psychiatric and neurotic symptoms, especially PTSD (57), were associated with physical abuse by a spouse (36,61,62), marital disharmony (36), loss of social networks (33,35,36), and separation from family members (54,63).

(iii) Systemic: Gender-based violence (including physical, sexual and emotional abuse), financial insecurity, limited autonomy, birth spacing, poverty, poor living conditions in refugee camps and discrimination faced by refugees were associated with very poor mental health outcomes (35,36,38,61,64). Migration and displacement increased mental distress for women in the region due to complex trauma, deficient social support and acculturation stress (58).

Mental health interventions

Our selected literature on interventions (n=7) focused on mental health conditions, coping abilities and posttraumatic growth of the individuals. However, few interventions addressed women's mental health needs

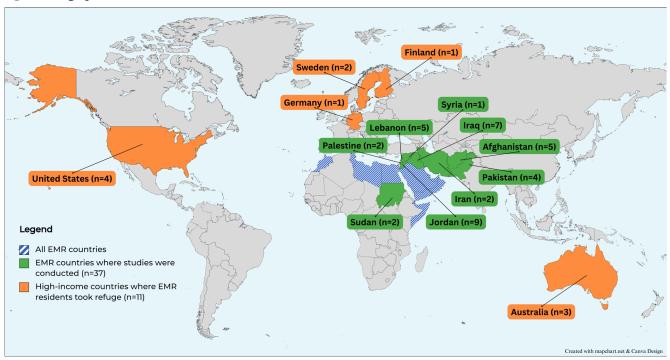


Figure 2 Geographical distribution of selected studies on women's mental health in the EMR, 2001–2023

specifically. The interventions reported included self-carebased life-skills training, group problem management plus (gPM+), the profound stress attunement (PSA) framework, community mental health worker (CMHW) facilitated psychoeducation and trauma-informed support, cognitive-processing therapy (CPT) and brief narrative exposure therapy (NET). These interventions demonstrated small to moderate effectiveness in improving depression, anxiety and PTSD.

In the grey literature , we found more interventions specific to women's mental health in the EMR. For example, perinatal mental health was noted as a national priority policy in 10 EMR countries (56). Countries in the region acknowledged the varying roles of public, private, and joint ventures in providing maternal mental health services, with country income ranking not determining the different sectors' capacity to deliver services. Psychiatrists served as the primary providers of maternal mental health services in 82% of the 11 EMR countries surveyed (56). Only a few countries have specific provisions for women within their health systems, such as earmarked beds, specialized mental health facilities and psychosocial support (5,58). There were numerous paternal and maternal health promotion programmes (37). Community health worker (CHW) programmes for maternal mental health were operational in 13 countries (5). Mental health interventions administered by nonspecialist CHWs, like the Thinking Healthy Program for managing perinatal depression, have proven effective and scalable (5,34).

Barriers for women's mental health interventions in the EMR

Challenges in providing maternal, child and adolescent mental health services included lack of awareness, resources and research output. There was a lack of epidemiological data and political commitment to address these issues. Transportation and financial challenges further hindered service delivery (*34,38,56*). Stigma and discrimination at institutional, community and individual levels created unspoken barriers for women in accessing mental health care (*34*). Residence also impacted access to mental health. Rural areas lacked services, while urban areas had better access (*50*). The high cost of mental health care and the significant treatment gap among women in the EMR is a concern (*5,38,50*).

Risk of bias in the peer-reviewed literature

We found that the selected randomized control trials generally abided by the CONSORT 2010 checklist whereas the cross-sectional and cohort studies met most of the STROBE criteria, with a few shortcomings. Even though the randomized control trials provided sufficient information on 'recruitment and follow-up', they did not report well on generalisability such as external validity and applicability of trial findings.

Discussion

Global estimates suggest that 1 in every 5 individuals residing in a conflict zone experiences mental health conditions such as depression, anxiety, PTSD, bipolar disorder or schizophrenia (14). Prolonged conflicts and vulnerabilities, including population dislocation, weak social networks, livelihood destruction and human rights abuses, have plagued the EMR for decades (65). These protracted crises disproportionately affect vulnerable populations such as female migrants and refugees.

Firstly, we found that anxiety, PTSD and depression was the most prevalent mental health disorders among women in our region, all of which are generally understood to be associated with trauma related to war, complex trauma related to repeated long-term genderbased violence or political unrest and warfare; and or sexual or physical violence.

Secondly, our review used the synthesised data to categorise risk factors for mental health outcomes into 3 distinct categories: (i) intrapersonal; (ii) interpersonal and (iii) systemic. At the intrapersonal level, advancing age, ethnic minority status, reproductive health issues, educational disparities, perceptions of feeling unsafe due to conflicts and adjustments in the host country for migrants were considered important contributors to mental health. Interpersonal risk factors included limited social support, living in camps and exposure to violence. At the systemic level, studies reported limited healthcare access, prohibitive costs, gender discrimination and low-quality mental health services. Political and social conflicts emerged as major barriers to sound mental health. Direct exposure to traumatic experiences such as combat or warfare that resulted in infrastructure destruction (loss of homes, schools hospitals and religious facilities) and limited healthcare (bombed/sabotaged/inaccessible), access worsened mental health outcomes in Afghanistan, Iraq and Syrian Arab Republic (15,16).

Aligned with our findings on mental health, another multisite study indicated that women, especially those with advancing age, were more likely to be negatively affected by violence and turmoil than men (14). Cultural and background variations can exacerbate intrapersonal, interpersonal, and systemic risks, aggravating already poor mental health outcomes, escpecially in settings where discrimination worsens the effects of systemic risks.

Women from marginalised ethnic groups were more vulnerable to genocide, gender-based violence, discrimination, declining social support, low self-esteem, and suicidal thoughts. Health care provision is often extremely limited or non-existent due to the destruction of medical facilities in conflict-affected communities, making it difficult for women to seek any form of care. Studies among ethnic minority women in Europe support our findings (66–69). Interventions targeted PTSD, anxiety, and depression among populations facing adversity and humanitarian crises. Similar interventions, including short-duration task-shifting psychoeducational interventions, trauma-informed support by CMHWs, gPM+, and NET, have shown efficacy among other refugee populations (70–75).

We identified a lack of data on women's mental health in the national epidemiological surveys. This information gap creates potential barriers to establishing effective mental health services. Stigma and discrimination at institutional, community and individual levels further hinder access to available mental healthcare (76). Healthcare professionals in the region lack formal curriculum-based training and fragmented mental health services impede access to appropriate care. Mental health resource distribution is inequitable, with urban areas having higher bed densities and more psychiatrists, whereas mental illnesses were more prevalent in rural areas. Though not emphasised in our review, the economic burden of mental illnesses in low- and middleincome countries is substantial (78). In Pakistan, the financial cost of mental illness and associated healthcare is estimated to be as high as 37% of total economic burden (78).

Maternal mental health emerged as a priority for mental health intervention in the national policies of 10 EMR countries, including those affected by conflict (*56*). However, the majority of non-specialist maternal mental health workers require additional training. For example, Pakistan recently introduced a new task-shifting mental health literacy curriculum for female community health workers who already deliver local maternal, newborn and child health services (*79*).

Our results showed that the CHW programmes focusing on maternal health in 13 EMR countries -Afghanistan, Egypt, Islamic Republic of Iran, Jordan, Kuwait, Morocco, Oman, Pakistan, State of Palestine, Sudan, Syrian Arab Republic, Tunisia, and Yemen also delivered mental health care services to women and children (5). For example, the Thinking Healthy Program is an evidence-based cognitive-behavioural therapy delivered through frontline workers and nonspecialists to reduce perinatal depression (34). Similarly, the government-supported Lady Health Worker Program (LHW-P) in Pakistan, which recruits and trains local women, who have the trust of their community in offering preventive maternal and child services at community doorsteps, can be considered a sustainable and successful model for integrating mental health into primary health care. We therefore suggest, supported by evidence (80), that mental health delivery by local nonspecialist health workers could be considered as a best practice for reducing barriers and providing effective maternal mental health interventions in resourceconstrained settings.

This systematic review has certain limitations. There is a possibility of missing relevant studies from other databases (like EMBASE and Scopus) due to the choice of language, time constraints for selection and screening, under-reporting of women's mental health disorders and discrimination and cultural stigmatisation of women's mental health. Our prevalence estimates are primarily derived from pre-pandemic studies, therefore, the actual burden of mental illness in the aftermath of COVID-19 may be higher. Comparisons of women's mental health among migrant or refugee populations residing within and outside the EMR are challenging due to scanty literature on such topics. For future studies, a metaanalysis rather than systematic review is recommended for calculating pooled prevalence of mental disorders in the region.

Conclusion

Our review underscores the imperative to expand women's mental health services, address barriers and allocate more resources to mental health programmes. We suggest interventions such as enhancing mental health surveillance, facilitating community programmes to help reduce cultural and social stigma and programmes to train non-specialist and specialist healthworkers in mental health outreach for women living in fragile and conflict zones.

Funding: This project was funded by an WHO grant.Competing interests: None declared.

Analyse systématique en matière de santé mentale des femmes dans les contextes de fragilité et de crise humanitaire de la Région de la Méditerranée orientale Résumé

Contexte : Les situations d'urgence et les défis humanitaires croissants ont aggravé la situation relative à la santé mentale des femmes dans la Région de la Méditerranée orientale.

Objectif : Évaluer la prévalence, les déterminants et les interventions en matière de santé mentale chez les femmes en situation de fragilité et de crise humanitaire dans la Région de la Méditerranée orientale.

Méthodes: À l'aide des lignes directrices PRISMA (Preferred Reporting Items for Systematic Review and Meta-analysis), nous avons passé en revue 59 études évaluées par des pairs publiées (PubMed, IMEMR) et la littérature grise (OMS/IRIS) qui étaient axées sur la santé mentale des femmes dans la Région de la Méditerranée orientale, entre janvier 2001 et février 2023. Nous avons ensuite procédé à une analyse descriptive des caractéristiques sociodémographiques.

Résultats : Parmi les 59 études examinées, seules 13 des 48 études évaluées par des pairs portaient principalement sur la santé mentale des femmes, 11 dossiers appartenant à la littérature grise présentaient principalement des données régionales regroupées, 11 des 25 études sur la santé mentale chez les migrants concernaient les personnes qui cherchaient refuge dans les pays à revenu élevé. La prévalence moyenne des troubles mentaux, déterminée à partir de 32 études transversales portant sur des femmes âgées de 12 à 75 ans, était de 49 % ; la prévalence moyenne de l'anxiété était de 68 % ; celle des troubles de stress post-traumatique s'élevait à 52 % ; et celle de la dépression à 43 %. Les femmes présentaient des niveaux de dépression plus élevés que les hommes. L'âge, les disparités en matière d'éducation et l'accès limité aux services constituent des facteurs de risque importants pour les troubles de santé mentale. Plusieurs interventions prometteuses sont apparues.

Conclusion : Davantage d'efforts devraient être consentis pour fournir des solutions personnalisées et adaptées au contexte concernant les problèmes de santé mentale des femmes vivant dans des situations de crise humanitaire et de fragilité dans la Région de la Méditerranée orientale, notamment en allouant davantage de ressources aux programmes de santé mentale, en s'attaquant aux obstacles, en améliorant la surveillance dans ce domaine et en réduisant la stigmatisation.

استعراض منهجي للصحة النفسية للنساء في الأوضاع الهشة والإنسانية بإقليم شرق المتوسط فوزيه رباني ،عائشة زاهدي ،آمنه صديقي ،صنم شاه ،زل ميرعلي ،خالد سعيد ،محمد عفيفي الخلاصة

الخلفية: أدى تزايد حالات الطوارئ والتحديات الإنسانية إلى تردِّي حالة الصحة النفسية للنساء في إقليم شرق المتوسط.

الأهداف: هدفت هذه الدراسة الى تقييم معدل انتشار حالات الصحة النفسية بين النساء في الأوضاع الهشة والإنسانية بإقليم شرق المتوسط، ومُحدِّدات تلك الحالات، والتدخلات المطلوبة لمعالجتها.

طرق البحث: باستخدام المبادئ التوجيهية للعناصر الموصى بها لإعداد تقارير الاستعراض المنهجي والتحليلات التلوية (PRISMA)، استعرضنا 59 من الدراسات المنشورة المُحكَّمة (موقع PubMed، موقع الفهرس الطبي لإقليم شرق المتوسط «IMEMR») والمؤلفات غير الرسمية (منظمة الصحة العالمية/ المستودع المؤسسي لتبادل المعلومات) التي تشمل المدة من يناير / كانون الثاني 2001 إلى فبراير / شباط 2023 وتركَّز على الصحة النفسية للمرأة في إقليم شرق المتوسط. ثم أجرينا تحليلًا وصفيًّا للخصائص الاجتهاعية السكانية.

النتائج: من بين الدراسات التي استُعرضت وبلغ عددها 59، فإن 13 فقط من الدراسات المحكَّمة البالغ عددها 48 ركَّزت في الأساس على الصحة النفسية للمرأة، في حين أن 11 من سجلات المؤلفات غير الرسمية عرضت في الغالب بيانات إقليمية مجمَّعة، كها أن 11 من أصل 25 دراسة عن الصحة النفسية بين المهاجرين تناولت النساء اللاتي لجأن إلى بلدان مرتفعة الدخل. وفي 32 دراسة مقطعية على النساء اللاتي تتراوح أعهارهن بين 12 و75 عامًا، كان متوسط انتشار الاضطرابات النفسية 49٪، ومتوسط انتشار القلق 68٪، واضطراب الكرب التالي للصدمات 52٪، والاكتئاب 43٪. وكانت مستويات الاكتئاب لدى النساء أعلى منها لدى الرجال. كما أن العمر، وتفاوت المستوى التعليمي، ومحدودية إتاحة الخدمات كانت من عوامل الخطر المهمة المؤدية إلى اضطرابات الصحة النفسية. كما ظهرت عدة تدخلات واعدة.

الاستنتاجات: ينبغي بذل مزيد من الجهود لتوفير حلول مصممة خصيصًا ومحدَّدة السياق لتحديات الصحة النفسية التي تواجهها النساء في الأوضاع الإنسانية والهشة بإقليم شرق المتوسط، ومنها تخصيص مزيد من الموارد لبرامج الصحة النفسية، والتصدي للعقبات، وتعزيز ترصد الصحة النفسية، والحد من الوصم الاجتهاعي.

References

- 1. Countries [Internet]. World Health Organization Regional Office for the Eastern Mediterranean. 2021 [cited 2024 Feb 7]. Available from: http://www.emro.who.int/countries.html
- 2. World Health Organization. Addressing health emergencies [Internet]. 2019. [cited 2024 Feb 7] Available from: https://applications.emro.who.int/docs/9789290223467-ch3-eng.pdf
- 3. WHO EMRO | Countries in Crisis | Emergencies [Internet]. World Health Organization Regional Office for the Eastern Mediterranean. [cited 2024 Feb 7]. Available from: http://www.emro.who.int/eha/countries-in-crisis/index.html
- 4. Ismail SA, Mcdonald A, Dubois E, Aljohani FG, Coutts AP, Majeed A, et al. Assessing the state of health research in the Eastern Mediterranean Region. J R Soc Med. 2013;106(6):224–33. Available from https://doi.org/10.1258/jrsm.2012.120240
- 5. World Health Organization. Health and well-being profile of the Eastern Mediterranean Region An overview of the health situation in the Region and its countries in 2019. 2020;1–256. Available from: https://applications.emro.who.int/docs/9789290223399eng.pdf?ua=1&ua=1
- 6. Geneva Academy. Today's Armed Conflicts the Geneva Academy of International Humanitarian Law and Human Rights [Internet]. geneva-academy.ch. 2023 [cited 2024 Feb 7]. Available from: https://geneva-academy.ch/galleries/today-s-armed-conflicts
- 7. World Health Organization: WHO. Mental health in emergencies [Internet]. 2022 [cited 2024 Feb 7]. Available from: https://www.who.int/news-room/fact-sheets/detail/mental-health-in-emergencies
- 8. World Health Organization. Monitoring health and health system performance in the Eastern Mediterranean Region Core indicators and indicators on the health-related Sustainable Development Goals [Internet]. 2020. [cited 2024 Feb 7]. Available from: https://rho.emro.who.int/sites/default/files/booklets/EMR-HIS-and-core-indicators-2020-final.pdf
- 9. Patel V, Saxena S, Lund C, Thornicroft G, Baingana F, Bolton P, et al. Vol. 392, The Lancet. Elsevier; 2018. p. 1553–98 The Lancet Commission on global mental health and sustainable development. Available from: https://www.thelancet.com/commissions/ global-mental-health
- 10. Charara R, Mokdad A. The Burden of Mental Disorders in the Eastern Mediterranean Region, 1990–2013. Eur Psychiatry. 2017;41(S1):S156–7. Available from https://doi.org/10.1371/journal.pone.0169575
- 11. GBD 2019 Mental Disorders Collaborators. Global, regional, and national burden of 12 mental disorders in 204 countries and territories, 1990–2019: A systematic analysis for the Global Burden of Disease Study 2019. The Lancet Psychiatry [Internet]. 2022 Jan;9(2):137–50. Available from: https://www.thelancet.com/journals/lanpsy/article/PIIS2215-0366(21)00395-3/fulltext
- 12. The Lancet Global Health. Mental health matters. Lancet Glob Health [Internet]. 2020 8:e1352. Available from: https://doi.org/10.1016/S2214-109X(20)30432-0
- 13. Zuberi A, Waqas A, Naveed S, Hossain MM, Rahman A, Saeed K, et al. Prevalence of Mental Disorders in the WHO Eastern Mediterranean Region: A Systematic Review and Meta-Analysis. Front Psychiatry. 2021;12(July):1–12. Available from https://doi. org/10.3389/fpsyt.2021.665019
- 14. Charlson F, van Ommeren M, Flaxman A, Cornett J, Whiteford H, Saxena S. New WHO prevalence estimates of mental disorders in conflict settings: a systematic review and meta-analysis. The Lancet [Internet]. 2019 Jul 20;394(10194):240-8. Available from: https://doi.org/10.1016/S0140-6736(19)30934-1
- 15. Mohd Saleem S, Shoib S, Dazhamyar AR, Chandradasa M. Afghanistan: Decades of collective trauma, ongoing humanitarian crises, Taliban rulers, and mental health of the displaced population. Asian J Psychiatr. 2021 Nov 1;65:102854 Available from: https:// doi.org/10.1016/j.ajp.2021.102854
- 16. Roberts B, Browne J. A systematic review of factors influencing the psychological health of conflict-affected populations in lowand middle-income countries. Glob Public Health. 2011;6(8):814–29. Available from https://doi.org/10.1080/17441692.2010.511625
- 17. WHO. Pakistan celebrates World Mental Health Day [Internet]. World Health Organization Regional Office for the Eastern Mediterranean. [cited 2024 Feb 7]. Available from: https://www.emro.who.int/pak/pakistan-news/who-pakistan-celebrates-world-mental-health-day.html#:~:text=In
- 18. La Cascia C, Cossu G, Lindert J, Holzinger A, Zreik T, Ventriglio A, Bhugra D. Migrant women-experiences from the mediterranean region. Clin Pract Epidemiol Ment Health. 2020;16(Suppl-1):101. Available from https://doi.org/10.2174/1745017902016010101

- 19. Mary-Jo Del Vecchio G. Women and Mental Health [Internet]. www.un.org. [cited 2024 Feb 7]. Available from: https://www.un.org/womenwatch/daw/csw/mental.htm
- 20. Charara R, Elbcheraoui C, Khalil I, Moradi-Lakeh M, Afshin A, Kassebaum NJ, et al. The burden of mental disorders in the Eastern Mediterranean region, 1990–2015: Findings from the global burden of disease 2015 study. Int J Public Health. 2017 Aug 3;63(S1):25–37. Available from https://doi.org/10.1007/s00038-017-1006-1
- 21. Steiner M, Dunn E, Born L. Hormones and mood: From menarche to menopause and beyond. J Affect Disord. 2003;74(1):67–83. Available from https://doi.org/10.1016/s0165-0327(02)00432-9
- 22. Biaggi A, Conroy S, Pawlby S, Pariante CM. Identifying the women at risk of antenatal anxiety and depression: A systematic review. J Affect Disord [Internet]. 2016;191(2):62–77. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4879174/
- 23. National Institute of Mental Health. NIMH» Women and Mental Health [Internet]. www.nimh.nih.gov. 2021 [cited 2024 Feb 7]. Available from: https://www.nimh.nih.gov/health/topics/women-and-mental-health
- 24. Cuijpers P, Berking M, Andersson G, Quigley L, Kleiboer A, Dobson KS. A meta-analysis of cognitive-behavioural therapy for adult depression, alone and in comparison with other treatments. Can J Psychiatry. 2013;58(7):376–85. Available from: https://journals.sagepub.com/doi/pdf/10.1177/070674371305800702
- 25. Cuijpers P, Geraedts AS, van Oppen P, Andersson G, Markowitz JC, van Straten A. Interpersonal Psychotherapy for Depression: A Meta-Analysis. Am J Psychiatry [Internet]. 2011 Jun 1;168(6):581–92. Available from: https://doi.org/10.1176/appi.ajp.2010.10101411
- 26. Ekers D, Webster L, Van Straten A, Cuijpers P, Richards D, Gilbody S. Behavioural activation for depression; An update of meta-analysis of effectiveness and sub group analysis. PLoS One. 2014;9(6). Available from: https://doi.org/10.1371/journal. pone.0100100
- 27. Purgato M, Gastaldon C, Papola D, van Ommeren M, Barbui C, Tol WA. Psychological therapies for the treatment of mental disorders in low- and middle-income countries affected by humanitarian crises. Cochrane Database of Syst Rev. 2018;2018(7). Available from https://doi.org/10.1002/14651858.CD011849.pub2
- 28. Regan M, Gater R, Rahman A, Patel V. Mental health research: Developing priorities and promoting its utilization to inform policies and services. East Mediterr Health J [Internet]. 2015;21(7):517–21. Available from: https://doi.org/10.26719/2015.21.7.517
- 29. Gater R, Saeed K. Scaling up action for mental health in the Eastern Mediterranean Region: An overview. East Mediterr Health J. 2015;21(7):535-45. Available from https://doi.org/10.26719/2015.21.7.535
- 30. Moher D, Liberati A, Tetzlaff J, Altman DG. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. J Clin Epidemiol. 2009;62(10):1006–12. Available from https://doi.org/10.1371/journal.pmed.1000097
- 31. Rahmani N, Salehi A, Molavi Vardanjani H, Marzban M, Behbood A. Using STROBE checklist to assess the reporting quality of observational studies affiliated with Shiraz University of Medical Sciences, and its correlates: a scientometric study from Iran. Scientometrics. 2020;122(2):989–1001. Available from https://doi.org/10.1007/s11192-019-03317-3
- 32. Moher D, Hopewell S, Schulz KF, Montori V, Gøtzsche PC, Devereaux PJ, et al. CONSORT 2010 Explanation and Elaboration: updated guidelines for reporting parallel group randomised trials. J. Clin. Epidemiol. 2010 Aug;63(8):e1-37. Available from https:// doi.org/10.1136/bmj.c869
- 33. El Husseiny J, Farran SH, El Sheikh WG, Yehya Y, El Hayek S, El Husseiny H, et al. Posttraumatic Stress Disorder Among the Lebanese Population and Syrian Refugees: A Systematic Review. Psychol Trauma. 2023 Jan 23; Available from https://doi.org/10.1037/ tra0001409
- 34. World Health Organization. Regional Office for the Eastern Mediterranean. Maternal, child and adolescent mental health: challenges and strategic directions for the Eastern Mediterranean Region [Internet]. apps.who.int. 2011 [cited 2024 Feb 7]. Available from: https://apps.who.int/iris/handle/10665/116689
- 35. Lobanov-Rostovsky S, Kiss L. The mental health and well-being of internally displaced female Yazidis in the Kurdistan Region of Iraq: a realist review of psychosocial interventions and the impact of COVID-19. Glob Ment Health. 2022;9:508–20. Available from https://doi.org/10.1017/gmh.2022.55
- 36. World Health Organization. Regional Office for the Eastern Mediterranean. Gender and mental health in the Eastern Mediterranean Region [Internet]. 2005. Available from: https://apps.who.int/iris/handle/10665/116470
- 37. World Health Organization. Regional Office for the Eastern Mediterranean. Mental health atlas 2020: review of the Eastern Mediterranean Region [Internet]. 2022 [cited 2024 Feb 7]. Available from: https://apps.who.int/iris/handle/10665/365880
- 38. World Health Organization. Gender issues in health in the sociocultural context of the Eastern Mediterranean Region, 19-21 December 2004 [Internet]. 2005 [cited 2024 Feb 7]. Available from: http://applications.emro.who.int/docs/WHO_EM_whd_007_e_ en.pdf?ua=1
- 39. World Health Organization. Regional Office for the Eastern Mediterranean. Regional strategy on mental health and substance abuse [Internet]. 2012 [cited 2024 Feb 7]. Available from: https://apps.who.int/iris/handle/10665/116830
- 40. Wazir MNK, Fatima K, Ahmad HR, Kakakhel S, Yousaf N, Wahid F. Association and Effects of Trauma, Displacement, and Illicit Drug Use on Psychiatric Illnesses in Khyber Pakhtunkhwa, Pakistan. Cureus [Internet]. 2022 Feb 1;14(2):e22079. Available from: https://pubmed.ncbi.nlm.nih.gov/35308687/
- 41. Kavian F, Mehta K, Willis E, Mwanri L, Ward P, Booth S. Migration, Stress and the Challenges of Accessing Food: An Exploratory Study of the Experience of Recent Afghan Women Refugees in Adelaide, Australia. Int J Environ Res Public Health. 2020 Feb 21;17(4):1379. Available from https://doi.org/10.3390/ijerph17041379

- 42. Mujeeb A. Mental health of internally displaced persons in Jalozai camp, Pakistan. Int J Soc Psychiatry. 2015 Mar 12;61(7):653–9. Available from https://doi.org/10.1177/0020764015573083
- 43. Hijazi AM, Lumley MA, Ziadni MS, Haddad L, Rapport LJ, Arnetz BB. Brief Narrative Exposure Therapy for Posttraumatic Stress in Iraqi Refugees: A Preliminary Randomized Clinical Trial. J Trauma Stress [Internet]. 2014 May 27;27(3):314–22. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4080404/
- 44. Ibrahim H, Ertl V, Catani C, Ismail AA, Neuner F. Trauma and perceived social rejection among Yazidi women and girls who survived enslavement and genocide. BMC Med. 2018;16(1). Available from https://doi.org/10.1186/s12916-018-1140-5
- 45. Cardozo BL, Bilukha OO, Gotway CA, Wolfe MI, Gerber ML, Anderson M. Report from the CDC: Mental Health of Women in Postwar Afghanistan. J Womens Health. 2005;14(4):285–93. Available from https://doi.org/10.1089/jwh.2005.14.285
- 46. Jafree SR, Nadir SMH, Mahmood QK, Burhan SK. The migrant Hazara Shias of Pakistan and their social determinants for PTSD, mental disorders and life satisfaction. J Migr Health. 2023;7:100166. Available from https://doi.org/10.1016/j.jmh.2023.100166
- 47. Michaels C, Blake L, Lynn A, Greylord T, Benning S. Mental Health and Well-being Ecological Model [Internet]. Center for Leadership Education in Maternal & Child Public Health University of Minnesota School of Public Health. 2022 [cited 2024 Feb 7]. Available from: https://mch.umn.edu/resources/mhecomodel/
- 48. Stark L, Robinson M V., Gillespie A, Aldrich J, Hassan W, Wessells M, et al. Supporting mental health and psychosocial wellbeing through social and emotional learning: A participatory study of conflict-affected youth resettled to the U.S. BMC Public Health. 2021;21(1). Available from https://doi.org/10.1186/s12889-021-11674-z
- 49. Noubani A, Diaconu K, Ghandour L, El Koussa M, Loffreda G, Saleh S. A community-based system dynamics approach for understanding factors affecting mental Health and Health seeking behaviors in Beirut and Beqaa regions of Lebanon. Global Health. 2020;16(1). Available from https://doi.org/10.1186/s12992-020-00556-5
- 50. World Health Organization. Regional Office for the Eastern Mediterranean. Mental health systems in the Eastern Mediterranean Region: Report based on the WHO assessment instrument for mental health systems [Internet]. 2010 [cited 2024 Feb 7]. Available from: http://www.emro.who.int/dsaf/dsa1219.pdf
- 51. Trani JF, Bakhshi P. Vulnerability and mental health in Afghanistan: Looking beyond war exposure. Transcult Psychiatry. 2013;50(1):108–39. Available from https://doi.org/10.1177/1363461512475025
- 52. Miller KE, Omidian P, Rasmussen A, Yaqubi A, Daudzai H. Daily Stressors, War Experiences, and Mental Health in Afghanistan. Transcult Psychiatry. 2008;45(4):611–38. Available from https://doi.org/10.1177/1363461508100785
- 53. Naal H, Nabulsi D, El Arnaout N, Abdouni L, Dimassi H, Harb R, et al. Prevalence of depression symptoms and associated sociodemographic and clinical correlates among Syrian refugees in Lebanon. BMC Public Health. 2021;21(1). Available from https:// doi.org/10.1186/s12889-021-10266-1
- 54. Badri A, Van den Borne HW, Crutzen R. Experiences and psychosocial adjustment of Darfuri female students affected by war: An exploratory study. Int J Psychol. 2013;48(5):944–53. Available from https://doi.org/10.1080/00207594.2012.696652
- 55. Roupetz S, Bartels SA, Michael S, Najjarnejad N, Anderson K, Davison C. Displacement and emotional well-being among married and unmarried Syrian adolescent girls in Lebanon: An analysis of narratives. Int J Environ Res Public Health. 2020;17(12):1–22. Available from https://doi.org/10.3390/ijerph17124543
- 56. World Health Organization. Regional Office for the Eastern Mediterranean. Atlas, child, adolescent, and maternal mental health resources in the Eastern Mediterranean Region. [Internet]. 2011 [cited 2024 Feb 7]. Available from: https://apps.who.int/iris/hant dle/10665/119949
- 57. World Health Organization. Iraq mental health survey 2006/2007 [Internet]. World Health Organization & Iraq Ministry of Health. 2009 [cited 2024 Feb 7]. Available from: https://apps.who.int/iris/handle/10665/116610
- 58. World Health Organization. Regional Office for the Eastern Mediterranean. Mental health in the Eastern Mediterranean Region. Reaching the unreached. [Internet]. 2006 [cited 2024 Feb 7]. Available from: http://applications.emro.who.int/dsaf/dsa702. pdf
- 59. Kuittinen S, Mölsä M, Punamäki RL, Tiilikainen M, Honkasalo ML. Causal attributions of mental health problems and depressive symptoms among older Somali refugees in Finland. Transcult Psychiatry. 2017 Mar 3;54(2):211–38. Available from https:// doi.org/10.1177/1363461516689003
- 60. Hall BJ, Hobfoll SE, Palmieri PA, Canetti-Nisim D, Shapira O, Johnson RJ, et al. The psychological impact of impending forced settler disengagement in Gaza: Trauma and posttraumatic growth. J Trauma Stress. 2008;21(1):22–9. Available from https://doi. org/10.1002/jts.20301
- 61. Falb KL, Blackwell A, Stennes J, Hussein M, Annan J. Depressive symptoms among women in Raqqa Governorate, Syria: associations with intimate partner violence, food insecurity, and perceived needs. Glob Ment Health [Internet]. 2019;6. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6796320/
- 62. Rees SJ, Fisher JR, Steel Z, Mohsin M, Nadar N, Moussa B, et al. Prevalence and Risk Factors of Major Depressive Disorder Among Women at Public Antenatal Clinics From Refugee, Conflict-Affected, and Australian-Born Backgrounds. JAMA Netw Open. 2019 May 3;2(5):e193442. Available from https://doi.org/10.1001/jamanetworkopen.2019.3442
- 63. Basheti IA, Ayasrah SM, Al-Qudah RA. Post-traumatic stress disorders among Syrian refugees residing in non-camp settings in Jordan. Saudi Med J. 2023;44(1):91–105. Available from https://doi.org/10.15537/smj.2023.44.1.20220701

- 64. Al-Nuaimi MA. Community violence and mental health among Iraqi women, a population-based study. Qatar Med J. 2013;2013(2). Available from https://doi.org/10.5339/qmj.2013.11
- 65. Watts K, Siddiqi S, Shukrallah A, Serag H, Karim K. Social determinants of health in countries in conflict: a perspective from the Eastern Mediterranean / World Health Organization. Regional Office for the Eastern Mediterranean [Internet]. 2008 [cited 2024 Feb 7]. Available from: http://applications.emro.who.int/dsaf/dsa955.pdf
- 66. Ilozumba O, Koster TS, Syurina E V, Ebuenyi I. Ethnic minority experiences of mental health services in the Netherlands: an exploratory study. BMC Res Notes [Internet]. 2022;15(1):266. Available from: https://doi.org/10.1186/s13104-022-06159-0
- 67. Watson H, Harrop D, Walton E, Young A, Soltani H. A systematic review of ethnic minority women's experiences of perinatal mental health conditions and services in Europe. PLoS One. 2019;14(1):e0210587. Available from https://doi.org/10.1371/journal. pone.0210587
- 68. Bhui K, Bhugra D, Goldberg D, Sauer J, Tylee A. Assessing the Prevalence of Depression in Punjabi and English Primary Care Attenders: The Role of Culture, Physical Illness and Somatic Symptoms. Transcult Psychiatry [Internet]. 2004 Sep 1;41(3):307–22. Available from: https://doi.org/10.1177/1363461504045642
- 69. Anderson FM, Hatch SL, Comacchio C, Howard LM. Prevalence and risk of mental disorders in the perinatal period among migrant women: a systematic review and meta-analysis. Arch Womens Ment Health [Internet]. 2017;20(3):449–62. Available from: https://doi.org/10.1007/s00737-017-0723-z
- 70. Wright A, Reisig A, Cullen B. Efficacy and cultural adaptations of narrative exposure therapy for trauma-related outcomes in refugees/asylum-seekers: A systematic review and meta-analysis. J Behav Cogn Ther. 2020;30(4):301–14. Available from https://doi.org/10.1016/j.jbct.2020.10.003
- 71. Robjant K, Roberts J, Katona C. Treating posttraumatic stress disorder in female victims of trafficking using narrative exposure therapy: A retrospective audit. Front Psychiatry. 2017;8(JUN). Available from https://doi.org/10.3389/fpsyt.2017.00063
- 72. Bonilla-Escobar FJ, Fandiño-Losada A, Martínez-Buitrago DM, Santaella-Tenorio J, Tobón-García D, Muñoz-Morales EJ, et al. A randomized controlled trial of a transdiagnostic cognitive-behavioral intervention for Afro-descendants' survivors of systemic violence in Colombia. PLoS One. 2018 Dec 10;13(12):e0208483. Available from https://doi.org/10.1371/journal.pone.0208483
- 73. Bolton P, Lee C, Haroz EE, Murray L, Dorsey S, Robinson C, et al. A Transdiagnostic Community-Based Mental Health Treatment for Comorbid Disorders: Development and Outcomes of a Randomized Controlled Trial among Burmese Refugees in Thailand. PLoS Med. 2014 Nov 11;11(11):e1001757. Available from https://doi.org/10.1371/journal.pmed.1001757
- 74. Acarturk C, Uygun E, Ilkkursun Z, Yurtbakan T, Kurt G, Adam-Troian J, et al. Group problem management plus (PM+) to decrease psychological distress among Syrian refugees in Turkey: a pilot randomised controlled trial. BMC Psychiatry [Internet]. 2022;22(1). Available from: https://doi.org/10.1186/s12888-021-03645-w
- 75. Jordans MJD, Kohrt BA, Sangraula M, Turner EL, Wang X, Shrestha P, et al. Effectiveness of Group Problem Management Plus, a brief psychological intervention for adults affected by humanitarian disasters in Nepal: A cluster randomized controlled trial. PLoS Med. 2021 Jun 17;18(6):e1003621. Available from https://doi.org/10.1371/journal.pmed.1003621
- 76. Ibrahim NK. Epidemiology of mental disorders in the Eastern Mediterranean Region. In: Current Trends in Medicine and Medical Research. 2019. Available from https://www.researchgate.net/publication/334067073_Epidemiology_of_Mental_Disor/ ders_in_the_Eastern_Mediterranean_Region
- 77. Mumford DB, Minhas FA, Akhtar I, Akhter S, Mubbashar MH. Stress and psychiatric disorder in urban Rawalpindi. Br J Psychiatry. 2000 Dec;177(6):557–62. Available from https://doi.org/10.1192/bjp.177.6.557
- 78. Malik MA, Khan MM. Economic Burden of Mental Illnesses in Pakistan. J Ment Health Policy Econ [Internet]. 2016 Sep 1;19(3):155–66. Available from: https://pubmed.ncbi.nlm.nih.gov/27572143/
- 79. Rabbani F, Akhtar S, Nafis J, Khan S, Siddiqi S, Merali Z. Addition of mental health to the lady health worker curriculum in Pakistan: now or never. Hum Resour Health. 2023;21(1):29. Available from https://doi.org/10.1186/s12960-023-00814-8
- 80. Barry MM, Clarke AM, Petersen I. Promotion of mental health and prevention of mental disorders: Priorities for implementation. East Mediterr Health J. 2015;21(7):503–11. Available from https://doi.org/10.26719/2015.21.7.503