
Depression and Anxiety among Iraqi Women: A Systematic Review

Kathryn Mishkin; *Global Institute for Health and Human Rights, University at Albany, NY USA*

(Correspondence: kmishkin@albany.edu)

Bibi Chaterpateah; *Global Institute for Health and Human Rights, University at Albany, NY USA*

Valerie Bresier; *Global Institute for Health and Human Rights, University at Albany, NY USA*

Jaleen Fraser; *Global Institute for Health and Human Rights, University at Albany, NY USA*

ABSTRACT

Background and objective: Maternal mental health is considered an important subject among leading public health experts. Women are two to three times more likely to be diagnosed with mental illness compared to men. According to the World Health Organization, depression will be the biggest contributor to burden of disease among women by 2020. Chronic stress, experiencing war, and history of abuse are associated with mental illness. Iraq has experienced years of challenging circumstances due to the political and social environment as well as physical barriers to health care services. This paper presents findings from literature about mental illness among Iraqi women.

Methods: A comprehensive literature review was conducted using PubMed, Google Scholar, and EBSCO Academic Search Complete to identify studies focused on mental illness in Iraq. Search terms included: maternal, anxiety, depression, Iraq, Middle Eastern and North African region, and women. Cross-sectional, cohort, and case-control studies were included.

Results: Five papers were found that focused exclusively on mental illness in Iraq. Two described maternal mental illness and three focused on mental illness in the general population, with two of the three including information specific to women. Results suggest that the rate of mental illness among Iraqi women is not different from women in other countries. However, because there is a difference of seven years between the Iraqi-focused study and other global studies, additional new research is required to best compare rates. Interestingly, Iraqi women experience maternal mental illness at higher rates than other women. While the global average rate for mental illness in pregnancy or the postpartum period is estimated at 15-20%, 37.5% of Iraqi women experience anxiety and 28.5% experience depression.

Conclusion: Additional study focusing on women's health and maternal mental health is necessary to describe women at highest risk for mental illness and to inform strategies to prevent and manage maternal mental health to promote women's health.

Keywords: mental disorder; women; mental health; Iraq; Kurdistan

Received: 6/6/2018

Accepted: 22/10/2018

Published: 30/11/2018

INTRODUCTION

Women's mental health is increasingly being recognized as an essential public health subject. This is true considering that by 2020, the World Health Organization (WHO) projects that depression will be the leading cause of disability among women [1]. An estimated 4.4% (322 million people)

live with depression and 3.6% (263 million people) live with anxiety globally [2]. Women represent a greater proportion of the population diagnosed with both depression and anxiety [2]. Because the global rate of mental illness diagnoses increased nearly 20% over 10 years from 2005 to 2015, , mental illness in the form

of depression and anxiety is important for women's health [3]. Leading public health experts have begun to recognize maternal mental health as a growing topic of concern [4, 5]. Defined as occurring in pregnancy and up to one year after pregnancy, maternal mental illness in the form of depression and anxiety are estimated to impact 15 to 20 percent of women globally [4]. This is because maternal depression and anxiety impact quality of life significantly through symptomology of loneliness; obsessive thoughts; feeling a loss of control and/or guilt; diminished concentration; loss of interest in activities; and fear of harming themselves and their infants [6]. While rare, women with maternal mental illness are at higher risk of attempting suicide than women without maternal mental illness [7, 8]. Comorbidity of these mental illnesses occurs routinely in the maternal period, with one study estimating that up to 80% of women who experienced maternal anxiety also experienced depression [9]. A 2013 WHO systematic review of mental disorders during pregnancy and the year after birth found that women in low- and middle-income countries including Nigeria, Vietnam, Bangladesh, Pakistan, Ethiopia, India, Zimbabwe, Uganda, and Thailand experienced maternal depression and anxiety at higher rates (20%) than among women in high-income countries (16%) [10]. Women are diagnosed with depression more often than men in both the Middle Eastern and North African (MENA) region and the rest of the world [11]. Depression is consistently ranked among the top 25 leading causes for disability adjusted life years in the MENA region [12], with depression and post-traumatic stress disorder considered the most common disorders. [11]. Because of the timeliness of this topic, this paper

presents a literature review focused on depression and anxiety among women in Iraq. The citizens and residents of this country have experienced years of challenging conditions due to conflict, political issues, and physical barriers to health care because of distance and quality of transportation [13]. Because factors including socioeconomic status [14-16], chronic stress [14-16], and history of abuse [17-21] are associated with mental illness, it is likely that Iraqi women are at especially high risk of developing these disorders. Furthermore, the underdeveloped mental health infrastructure within Iraq serves as a significant challenge to providing patients with needed services, for example there are only four psychiatrists per one million residents [22]. As a result, one Doctors Without Borders study finds that institution-level and community-level mental health services are lacking [22].

METHODS

To describe women's depression and anxiety in Iraq, a comprehensive systematic literature review was conducted in 2018 using PubMed, Google Scholar, and EBSCO Academic Search Complete. Studies were included if they were published between 2000 and 2017 and if they indicated an official measurement tool for the mental illness. Search terms were in English and included: "maternal", "anxiety", "depression" "perinatal", "postnatal", "postpartum", "prevalence", "Iraq," "MENA region", "women", "risk factor." Cross-sectional, cohort, and case-control studies were included.

RESULTS

While little is known about mental illness in the form of depression and anxiety in

Iraq, some surveys have been conducted to estimate the prevalence in the country. In 2015, the WHO estimated that 1,263,249 people were living with depression and 1,520,493 were living with anxiety in Iraq [3]. The only comprehensive national survey that collected prevalence rates of mental disorders to-date was the 2006/2007 Iraq Mental Health Survey (hereafter referred to as IMHS 2006/7), which sampled households to estimate mental illness prevalence overall and by region. Major depressive disorder was found to be the most common mental health disorder in Iraq, affecting about 475,000 Iraqi adults aged 18 years and older [23]. Of these cases, 46% were severe or very severe cases, as defined by suicidal thoughts and ideations [23]. However, these numbers increased over the course of eight years. The lifetime prevalence rate for any disorder was 18% on average [24], 21.13% in the Kurdistan region, and 15.69% in the South/Center region [23]. Urban areas had a higher prevalence rate (4.06%) for severe depressive disorders, compared to rural areas [2.51%] [23]. Furthermore, 3.5% indicated they had considered suicide recently [23]. Among children younger than 16 years, 37.4% were estimated to live with any mental disorder, with girls affected 22 times more often than boys [25].

Mental illness among women in Iraq

Few reports or articles have been written about the prevalence of depression and anxiety explicitly among women. Using reports that exist for adults in general, it is possible to obtain women-specific information. This information is displayed in Table 1. For example, the IMHS 2007/7 indicated that women are significantly more likely to experience lifetime prevalence for any mental illness disorder is (19.5%) compared to men (13.7%) [23].

Additionally, depressive disorders were three times more prevalent among females than males, and the lifetime prevalence of severe depression was significantly different by gender, with prevalence higher among women [4.9%] than men (2.1%) [23]. Women were also significantly more likely to experience anxiety disorders compared to men, with 1.26 women experiencing anxiety for every 1 man [23].

Among women, depressive disorders were more common among those with lower levels of education and among those who had been previously married and are now either divorced, widowed, or separated [23]. People who have been affected by war are also at a greater risk for depressive disorders [23].

Research focused on attitudes towards mental illness among Iraqis demonstrates that there are differences in how men and women perceive mental illness. Women are more likely to consider mental illness to be as a result of genetic inheritance or due to social situations, men are more likely to consider mental illness to be due to personal weakness or as a form of punishment from God [13].

Barriers to mental health service provision are due to a shortage of the public health infrastructure in general, where providers, medications, and supply chain are lacking [6].

Maternal mental illness in Iraq

Maternal mental health has also not been the focus of much research in Iraq. Two studies were identified including one that focused on maternal depression and one that focused on maternal anxiety. These studies are described in Table 2.

A maternal depression study was conducted in maternal health centers in Erbil city, Kurdistan region and screened women at six to eight weeks postpartum in

the Kurdish language [6]. The study found a prevalence rate of postpartum depression to be 28.5%, with the prevalence lower among younger women compared to older [6]. Postpartum depression was significantly associated with low socioeconomic status, having a prior history of psychiatric illness, having a family history of psychiatric illness, Cesarean section delivery, and a history of physical and/or sexual abuse [6]. This study served as the first validation of the Edinburgh Postpartum Depression Scale (EPDS) in the Kurdish language [6].

A case-control study focused on maternal anxiety demonstrated that women living in Mosul identified a prevalence rate of 43.5% using the American Psychiatric Association scale [26]. Women who delivered prematurely were 1.8 times more likely to suffer from anxiety than women who delivered full term (95% CI: 1.19–2.72; $p < 0.01$) [26]. Adjusting for covariates, women who delivered prematurely were 2.16 times more likely to suffer from anxiety than women who delivered full term (95% CI: 1.28-3.64; $p < 0.001$).

Table 1: Mental illness among women in Iraq as identified through national surveys

Study	Type mental illness	Year pub.	Size sample	Year data collect	Description	Highlighted results
Iraq Family Health Survey Report 2006/7	Depression Anxiety	2009	9345	2006-2007	Sample one adult per household across country, aged 18+ years using Composite International Diagnostic Interview Opinion article	19.5% lifetime prevalence women 14.1% lifetime prev. anxiety women 4.9% lifetime prev. depression women;
Mental Health in Iraq: issues and challenges Public perception of mental health in Iraq	Depression Anxiety Stigma of mental illness	2013 2010	4332 418	2007-2008 2010	Non-experimental random field research survey in Baghdad; systematic sampling of adults aged 18 years and older	Est. 100 psychiatrists total in country Barriers to mental health services include scarcity of resources, lack of access, stigma Women more likely than men to consider mental illness to be due to: Genetic inheritance [31% vs. 25%]; Bad things happening to a person [45% vs. 40%]; Men more likely than women to consider mental illness to be due to: Personal weakness [39% vs 36%] God’s punishment [18% vs. 14%]

Table 2: Literature focused on maternal mental illness in Iraq

Study, authors	Type mental illness	Location	Year pub.	Size sample	Year data collect	Sample description	Measurement tool	Results
Risk factors for pre-term birth in Iraq: a case control study	Anxiety	Mosul	2006	200	2003-2004	Women with live preterm birth 29-37 weeks	American Psychiatric Association Scale	43.5% had anxiety symptomology. Preterm birth associated with maternal anxiety
Screening for postpartum depression using Kurdish version of Edinburg postnatal depression.	Depression	Erbil	2011	1000	2010	Women ages 14 to 48 years, 6-8 weeks postpartum	Edinburgh Postpartum Depression Scale	28.5% had depression symptomology. Depression significantly associated with low SES [p=0.002], unplanned pregnancy [p=0.008], self/family history of psychiatric illness [p<0.001], Cesarean delivery [p=0.019], physical/sexual abuse [p<0.001]

DISCUSSION

This paper presents the first systematic review of the literature describing

women’s mental health and women’s maternal mental health in Iraq. While very little literature exists, what has been written suggests that women are at high

risk of mental illness because of social and cultural norms and events. There are also significant barriers to receiving mental health services because of infrastructure challenges and perceptions of stigma at the population level.

The prevalence rates of mental illness among women suggest that Iraqi women suffer from mental illness about as frequently as women in other areas of the world. Globally, the WHO estimates that the average prevalence rate for mental illness is higher in low-income countries (20%) compared to women in high-income countries (16%) [10]. This proves to be true for Iraq, a low-income country, as the prevalence rate of mental illness for women is 19.5% [23]. It is worth noting that the most recent national survey of mental illness among women occurred over 10 years ago in 2007 [23]. Because other countries have reported mental illness prevalence much more recently, comparing the prevalence rates of Iraq and other low-income countries might not be useful, especially as prevalence rates of mental illness have been increasing since 2003 [3]. New comprehensive research exploring mental illness throughout the country is needed to update our understanding of how many in the population is impacted by depression and anxiety. Without this research, it is nearly impossible to appropriately make cross-national comparison of rates of mental illness.

Additionally, new research is needed to focus exclusively on women. While the IMHS 2006/7 presented mental illness rates by gender and across regions, age groups, etc., it did not stratify rates by gender and other factors. Without stratified rates by gender, it is difficult to describe how women within different regions may be disproportionately affected by mental illness. For example, because the IMHS

2006/7 demonstrated that Kurdistan's prevalence rate was 21% compared to 15% in the South/Center region, and because women were demonstrated to experience symptomology significantly more frequently than men [23], it would be helpful to understand the role that region played in rates among women. This same analysis may be applied for other sociodemographic characteristics as well as behavioral characteristics. Further study related to maternal mental health is needed in Iraq as well. The two studies included in this literature review suggest that Iraqi women experience mental illness at significantly higher rates than women in other countries. Whereas the global prevalence rate for maternal depression and anxiety is between 15-20% [4], the two studies cited reported rates of 28.5% and 43.5%, respectively. It is unclear why women in Iraq would report mental illness symptomology at such high rates. Due to the recent violence in wars, women may have been impacted through experiencing sexual and physical violence or through widowhood or separation from their husbands [23]. Research has found that physical and sexual abuse is closely associated with a history of abuse [17-21] and with chronic stress [14-16], so women may be particularly susceptible to mental illness during pregnancy and one year postpartum. Recommendations include more research focused on maternal mental health in order to understand which women are at highest risk and also to inform larger-scale strategies for maternal mental health prevention and management.

Finally, development of the Iraqi workforce to identify and treat mental illness is needed. Midwives are in the unique situation of being able to provide physical care and emotional support to women in pregnancy, labor, and after delivery [5].

While organizational barriers to midwives providing mental health services exist in the form of heavy workload and time constraints, findings from one study conducted in the United Kingdom suggest that 50% of midwives reported inadequate knowledge about maternal mental health as a key barrier for deliveries mental health care [27]. Investment in education for midwives and health care providers attending pregnant women should be a priority in order to improve delivery of mental health services, especially in Iraq. Furthermore, it is recommended that cultural appropriateness and competency should be a top priority of the training, especially among highly stigmatized populations [27].

CONCLUSIONS

In conclusion, this paper presents findings from literature about mental illness among Iraqi women. Results from this literature review suggest that the prevalence of mental illness among Iraqi women is not different from women in other countries. However, much of the literature is out-of-date. New research is needed to compare depression and anxiety prevalence among women between Iraq and other countries. Interestingly, Iraqi women experience maternal mental illness at higher rates than other women. While the global average rate for mental illness in pregnancy or the postpartum period is estimated at 15-20%, nearly 40% of Iraqi women experience anxiety and nearly 30% experience depression. New research focused on women's health and maternal mental health is required to describe women at highest risk for mental illness and to inform strategies to prevent and manage maternal mental health to promote women's health.

CONFLICT OF INTEREST

The authors report no conflict of interests.

REFERENCES

- [1] World Health Organization. *Mental health aspects of women's reproductive health: a global review of the literature*. Geneva: World Health Organization; 2009.
- [2] Fisher J, Cabral de Mello M, Patel V, Rahman A, Tran T, Holton S, et al. Prevalence and determinants of common perinatal mental disorders in women in - and lower-middle-income countries: a systematic review. *Bulletin of the World Health Organization*. 2012;90(2):139g-49g.
- [3] World Health Organization. *Depression and Other Common Mental Disorders Global Health Estimates*. Geneva, Switzerland: WHO; 2017.
- [4] World Health Organization. *Mental health aspects of women's reproductive health: A global review of the literature*. Geneva: WHO; 2009.
- [5] Humberstone S. Mental illness in pregnancy: midwives supporting women and safeguarding babies. *Practicing Midwife*. 2015;18(9):18-20.
- [6] Ahmed HM, Alalaf SK, Al-Tawil NG. Screening for postpartum depression using Kurdish version of Edinburgh postnatal depression scale. *Archives of gynecology and obstetrics*. 2012;285[5]:1249-55.
- [7] Wallace ME, Hoyert D, Williams C, Mendola P. Pregnancy-associated homicide and suicide in 37 US states with enhanced pregnancy surveillance. *American Journal of Obstetrics and Gynecology*. 2016;215(3): e1-364.e10. doi: 10.1016/j.ajog.2016.03.040
- [8] Appleby L, Mortensen PB, Faragher EB. Suicide and other causes of mortality after post-partum psychiatric admission. *The British Journal of Psychiatry*. 1998;173:209-11.
- [9] Kendig S, Keats JP, Hoffman MC, Kay LB, Miller ES, Simas TAM, et al. Consensus Bundle on Maternal Mental Health: Perinatal Depression and Anxiety. *Obstetrics*

- & *Gynecology*. 2017;129(3):422-430. doi: 10.1097/AOG.0000000000001902.
- [10] Fisher J, de Mello, M., Patel, V., Rahman, A., Tran, T., Holton, S., et al. Prevalence and determinants of common perinatal mental disorders in women in low- and lower-middle-income countries: a systematic review. *Bull World Health Organization*. 2011;90(2):139-149H. doi: 10.2471/BLT.11.091850
- [11] Pocock L. Mental Health Issues in the Middle East - An Overview. *Middle East Journal of Psychiatry and Alzheimers*. 2017;7(1).
- [12] University of Washington. The global burden of disease: Generating evidence, Guiding Policy. Human Development Network, World Bank; 2010.
- [13] Sadik S, Bradley M, Al-Hasoon S, Jenkins R. Public perception of mental health in Iraq. *International Journal of Mental Health Systems*. 2010;4(1):26. DOI: 10.1186/1752-4458-4-26
- [14] Hobel CJ, Goldstein A, Barrett ES. Psychosocial stress and pregnancy outcome. *Clinical Obstetrics and Gynecology*. 2008;51(2):333-48. doi: 10.1097/GRF.0b013e31816f2709.
- [15] Olfson M, Mechanic D, Hansell S, Boyer CA, Walkup J. Prediction of homelessness within three months of discharge among inpatients with schizophrenia. *Psychiatric Services*. 1999;50(5):667-73. DOI: 10.1176/ps.50.5.667
- [16] Crawford DM, Trotter EC, Hartshorn KJS, Whitbeck LB. Pregnancy and Mental Health of Young Homeless Women. *American Journal of Orthopsychiatry*. 2011;81(2):173-83. DOI: 10.1111/j.1939-0025.2011.01086.x
- [17] Read J, van Os J, Morrison AP, Ross CA. Childhood trauma, psychosis and schizophrenia: a literature review with theoretical and clinical implications. *Acta psychiatrica Scandinavica*. 2005;112(5):330-50. DOI:10.1111/j.1600-0447.2005.00634.x
- [18] Miller P, Lawrie SM, Hodges A, Clafferty R, Cosway R, et al. Genetic liability, illicit drug use, life stress and psychotic symptoms: preliminary findings from the Edinburgh study of people at high risk for schizophrenia. *Social Psychiatry and Psychiatric Epidemiology*. 2001;36(7):338-42.
- [19] Honkalampi K, Hintikka J, Haatainen K, Koivumaa-Honkanen H, Tanskanen A, Viinamaki H. Adverse childhood experiences, stressful life events or demographic factors: which are important in women's depression? A 2-year follow-up population study. *Australian and New Zealand Journal of Psychiatry*. 2005;39[7]:627-32.
- [20] Seng JS, Low LK, Sperlich M, Ronis DL, Liberzon I. Prevalence, trauma history, and risk for posttraumatic stress disorder among nulliparous women in maternity care. *Obstetrics and Gynecology*. 2009;114(4):839-47.
- [21] Leigh B, Milgrom J. Risk factors for antenatal depression, postnatal depression and parenting stress. *BMC Psychiatry*. 2008;8:24. doi: 10.1186/1471-244X-8-24
- [22] Healing Iraqis: *The challenges of providing mental health care in Iraq*. 2013.
- [23] World Health Organization. *Iraq mental health survey 2006/7report*. 2009.
- [24] Alhasnawi S, Sadik S, Rasheed M, Baban A, Al-Alak MM, Othman AY, et al. The prevalence and correlates of DSM-IV disorders in the Iraq Mental Health Survey [IMHS]. *World Psychiatry*. 2009;8(2):97-109.
- [25] Al-Jawadi AA, Abdul-Rhman S. Prevalence of childhood and early adolescence mental disorders among children attending primary health care centers in Mosul, Iraq: a cross-sectional study. *BMC Public Health*. 2007;7:274. doi: 10.1186/1471-2458-7-274

- [26] Al-Dabbagh SA, Al-Tae WY. Risk factors for pre-term birth in Iraq: a case-control study. *BMC pregnancy and childbirth*. 2006;18(6):13. DOI:10.1186/1471-2393-6-13
- [27] Higgins A, Downes C, Monahan M, Gill A, Lamb SA, Carroll M. Barriers to midwives and nurses addressing mental health issues with women during the perinatal period: The Mind Mothers study. *Journal of Clinical Nursing*. 2018;27(9– 10);1872-1883. doi: 10.1111/jocn.14252