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Postpartum depression among Arabian Gulf population: a literature review

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Abstract: **postpartum or postnatal depression (PPD) is deemed as the one of the most common psychological disorders among women in their childbearing age. It affects both mother and child health. Internationally, in terms of total disability PPD is only second to HIV/AIDS. Mental health of childbearing age women in Arabian Gulf countries requires an obvious understanding of certain factors associated with the culture. The aim of this review is to examine the available studies and data on postpartum depression in Gulf region, and determine the risk factors that associated with this mental disorder in this particular population.**

Method: Various electronic research databases were used like PubMed, Google scholar for this review.

Results: The majority of studies using cross-sectional method as study design and the Edinburgh Postnatal Depression Scale (EPDS) were the most frequent instrument used in reviewed studies with different cutoff point for depression diagnosis. PPD prevalence rate among Arabian Gulf women ranging from 10% to 45.9% within first six months postpartum. The most common risk factors identified in reviewed studies are unwanted pregnancy, not breastfeeding and life stressors events.

Conclusion: This review provides evidence that a significant proportion of Arabian Gulf mothers experience impairment in their psychological health and social adaptation after childbirth. The study review demonstrates an importance for further studies with a concentration on the advancement of suitable screening scales and respect of cultural issues in the management of such people.

Keywords: **Postpartum, depression, women, Arab.**

1. INTRODUCTION

Postpartum mental disorders mainly postpartum depression (PPD) is common women health disorder during first months after giving birth. According to research published in Journal of Psychiatric Research published 2018, the incidence of PPD was 12% while the overall prevalence was 17% (1). (PPD) refer to non-psychotic depressive symptoms in the first year after the birth of a child (2). In current version of the Diagnostic and Statistical Manual of Mental Disorders, 5th Edition, PPD have the same diagnostic criteria of major depressive disorder, however; the onset in four weeks post-partum (3). Postpartum depressive symptoms include labile mood, weakness, disappointment, irritability, agitation, psychological distress, and sleep disorders (3). In women known to have a depressive disorders, a depressive relapse likely occurs in the postpartum period (4). PPD associated with maternal and child complications like marital tussle and impaired infant–mother relation, also added risks of deteriorated emotional, social, and cognitive development in the child (5), and rarely, mother suicide or infanticide (6).

According to the World Federation of Mental Health (WFMH), overall burden of depressive disorders are ranked as a fourth and by 2020 expected to ranked as the second (7).

In spite PPD is common and possibly critical, however, a limited patients are detected in during routine practice in primary health care (8,9) . The plurality of depressed women among the populations are underdiagnosed and therefore not treated (9) It has been proposed that up to 80% of mothers with PPD do not address their symptoms and are not managed by their physicians (10).

The reasons of PPD still not clear; but there are many factors can aggravate its risk, enclosing social, physical, psychological, and cultural factors. For example, a meta-analysis of 84 studies that was carried out by Beck showed that life stressful events, shortage or absence of family and/or husband help, decreased self-esteem, life history depression,

low socioeconomic status, weak relationship with her partner , and unwanted/unplanned pregnancy are PPD risk factors (11). Notable relationship between PPD symptoms and goodness of women relationship with her husband which demonstrated in many studies conducted in different settings (12–14).

The objective of this review is to provide a summary of postpartum depression prevalence in Arabian Gulf countries from the published literature. The review will also include an outline of predictors and risk factors associated with postpartum depression.

2. METHODS

A literature review was undertaken by using various electronic research databases including PubMed, Google scholar using the terms "postpartum depression," "Arab countries" "prevalence," and "risk factors". Studies included for this review if they met the following requirements: (a) examined prevalence and/or risk factors for PPD, (b) utilized a sample of Gulf Arabian women using quantitative methodologies, and (c) were published in English.

3. RESULTS AND DISCUSSION

A total of thirteen studies from Arabian Gulf countries were identified, four from Saudi Arabia, five of United Arab Emirate, two from Qatar, and each from Oman, Kuwait and Bahrain. All included studies utilized a quantitative approach. The majority of studies using cross-sectional method as study design (n = 10) and a purposive or convenient sampling was used as a sampling technique and 95 to 2091 was the sample sizes range. Most participants of the studies were enlisted from primary healthcare clinics followed by hospitals and one by telephone interview. As shown in Table 1, the Edinburgh Postnatal Depression Scale (EPDS) was the most frequent instrument applied in reviewed studies (n =11) with different cutoff point for depression diagnosis, followed by other instrument like: the Mini International Neuropsychiatric Inventory (n=1), Depression Anxiety & Stress Scale (n=1), and the Self-reporting questionnaire (n= 1). All target population in included studies was Arab women mostly Gulf citizens. The time frame was range from day two up to six month postnatal. Studies show multiple risk factors that can be classified into five main groups: psychological, maternal/pediatric, socio-demographic, physical, and cultural factors.

4. PREVALENCE

Based on the review summarized in (table 1), PPD prevalence rate among Arabian Gulf women range from 10% – 45.9% within first six months postpartum. This variation also documented in studies when conducted in the same countries. For instance, In Saudi Arabia PPD prevalence rates range from 14 % to 33.2%. Other studies in Kuwait country indicate that the prevalence rate of PPD (45.9%) which is higher than other gulf countries, whereas the lowest prevalence rates of PPD in United Arab Emirates (10%) (15,16). Because of variability in the tools and scales used for assessment and screening of PPD, different cut-off points of the same tool or scale, the point in time applied for study and cultural issues, the Comparisons of postnatal depression studies in Arabian Gulf countries are challenging (17). The difference in postnatal depression rate between Arab women especially shows that complicated socio cultural factors occur during motherhood. The modern life of Arab women especially in Arabian Gulf countries are openly changing to new working mothers from traditional roles of women within families and having increased stress secondary to new type of life. This may be sometimes decreasing their self-esteem leading to depressive symptoms during postnatal period. Mothers could not have the ability to avoid the postpartum traditional rituals practiced on them by their families. If the mothers had previous unhappy relationship with their families it could cause mothers experiencing stress through postpartum period (18). Moreover, in the study methods: different study designs and study settings and sample sizes may influence in the variation of prevalence rates of PPD.

5. RISK FACTORS

Risk factors for postnatal depression include hesitancy about the idea of conception, absence of social advocacy, lack of partner, economic difficulties , history of abortion, first birth, death of infant, infant gender , surgical or medical history, number of pregnancies, mode of delivery, life stressful event, and a history of depressive disorder illness, and more.(19). The most common risk factors identified in reviewed studies are unwanted pregnancy, not breastfeeding and life stressors events. The next risk factors in reviewed studies are psychological factors like previous psychiatric illness and history of depression and social/cultural factors like non-supportive husband, marital conflict and difficulties, bad relationship with mother-in-law, marriage at late age, higher level of education and insufficient emotional/ family support. Risk factors identified among the reviewed studies summarized in (table 2).

Unwanted pregnancy can have unfavorable impacts on the health of infant and mothers as its association with PPD which suggested in many study(20). In Saudi Arabia, a study among postnatal women specified via convenient sampling rated that 53% of women had unintended pregnancies. The words "unplanned" and "unwanted" used with similar meaning, i.e., to assess non willful conceptions, could contradict with their rates because the women have different understanding for the terms "unplanned", "unintended" and "unwanted" (21). Other study also in Saudi Arabia identified the association between unplanned pregnancies and poor outcomes to the mother and baby along with psychological effect (22).

Other common factor in reviewed studies for development of PPD is psychosocial stressors and stressful events of live. Death of a loved person, broken relationship or divorce, moving home, or missing a job such life events are triggers for stress and can evoke depressive episodes in women with no life history of affective disorders (23). conception and giving birth are considered as stressful life events in their own right, and the stresses of these events may lead to depression (24).

The third common factor in reviewed studies for development of PPD is not breastfeeding which is consistent with other studies (25,26). One prospective designed study of 137 Arab women in United Arab Emirates indicated that mothers who breastfeed their infants reduced their risk of developing PPD. However, PPD may also affect breastfeeding compliance , assuming an alternative relation between the two variables (27).

In conclusion this review provides evidence that a significant proportion of Arabian Gulf mothers experience impairment in their psychological health and social adaptation after childbirth. The study review demonstrates an importance for further studies with a concentration on the establishment of good screening assessment tools of depression with consideration of cultural issues that affect management of such population. For more and deeper understanding of PPD and its consequences in Arabian Gulf region it is important to have valid psychological research studies. Health care professionals need to be trained and educated on understanding of psychological aspects when providing care for mothers who are pregnant and who have recently given birth. Women should also be aware for possible depressive symptoms after the giving birth and should be taught coping strategies to avoid PPD.

(Table 1) Prevalence Rates of and Risk Factors Associated with PPD

Author	Design	Sample	Setting	Population	Measures of PPD	Time frame (postnatal)	Prevalence of PPD (%)	Risk factors
Saudi Arabia								
Almutairi et al (2017) (28)	Cross-sectional	113	Two main Polyclinics in Riyadh	Saudi Women	EPDS with cutoff ≥ 13	Within 6 week	25.7%	Para women among normal delivery group and women ≥ 6 weeks post cesarean- section group
Al-Modayfer et al (2015) (29)	Cross-sectional	571	Telephone interview in Riyadh	Saudi Women	EPDS with cutoff ≥ 13 score	5th week	14 %	Previous psychiatric illness Poor health during pregnancy and premature of this group
Alasoom and Koura (2014) (30)	Cross-sectional	450	Five largest PHC of Dammam	Saudi Women	EPDS with cutoff moderate 10-12 and severe ≥ 13	2-6 months	17.8% Moderate 9.8 Severe 8	Lifetime or family history of depression, unsupportive husband, unwanted conception, and stressful life events
Alharbi and Abdulghani (2014) (31)	Observational case-control and retrospective	352	Two main hospitals in Riyadh	Saudi Women	EPDS score ≥10	8–12 weeks	33.2%	low Hemoglobin levels and anemia during pregnancy
UAE								
Alhammadi et al. (2017) (32)	Cross-sectional	168	Major 10 PHC in Dubai	Multiple nationality	EPDS score ≥10	1-6 months	33 % 16% severe ≥ 13 depression 17% (10-12) borderline depression	employment status, baby birth weight, stressful life event and disagreement of marital relation.
A. Hamdan, H. Tamim (2011) (16)	Prospective Longitudinal	137	Maternal and Child Health Center (MCHC) in the Emirate of Sharjah	Arabian Peninsula and Levant Countries, North African	EPDS score ≥10 MINI	At 2 and 4 months	10 %	Depression during second and third trimesters of pregnancy, not breast feeding, number of children and religion.
Green et al. (2006) (33)	longitudinal	125	Government maternity hospital, Abu Dhabi	Emirati women	EPDS with cutoff ≥ 13	at 3 and 6 months	3 month : 22% 6 month :12.5%	Failure to breastfeeding, delivery of the first child, low self-body image and poor view of weight, inconsistent relationship with mother-in-law, and marrying in old age
Rizk et al. (2005) (34)	Cross-sectional	715	Al Ain Hospital	Women living in UAE	Interview	Day 3	13.2 %	Cesarean delivery, older age, primiparity, higher education, lack of antenatal care, and prolonged labor

Abou-Saleh, Ghubash (1997) (35)	Cross-sectional	95	New Dubai hospital	Women living in UAE mainly Dubai	SRQ score ≥ 6 EPDS score ≥ 11	Day 2 Day 7	24 % 18 %	Personal psychiatric disorders, marital challenges, stressful life episodes, lack of social support, polygamy, death of one's father before the age of 13, having a relative with an alcohol problem
Qatar								
F. T. Burgut et al (2013) (36)	Cross-sectional	1379	12 PHC centers of Qatar	Arab women residing in Qatar	EPDS score ≥ 12	within 6 months	17.6%	**Socio-demographic factors** Level of Education, type of occupation, consanguinity and transportation access. **Maternal factors** history of unplanned pregnancy and infertility and other medical complications such as gestational diabetes, heart disease, threatened abortion and cesarean delivery.
Bener et al. (2012) (37)	Cross-sectional	2091	22 PHC centers of Qatar state	Arab Women	Interview DASS score ≥ 10	within 6 months	18.6%	Under 30 years old, higher education level, lower household income, unplanned pregnancy, lack of family support, mothers as housewives, poor relationship with the mother-in-law
Oman								
Al-Hinai (2014) (38)	Prospective	282	Hospital & Health Centers, Al-Dakhlyia	Omani women	EPDS score ≥ 13	Week 2 Week 8	13.5 % 10.6%	Younger age, conflict with family members, sickness of family member, work difficulties
Kuwait								
Alhamdan et al. (2017) (15)	cross-sectional	658	18 vaccination centers	Mainly Kuwaiti Women	EPDS score ≥ 12	Within 6 months	45.9%	Decreased educational level, unplanned pregnancy, failure breastfeeding, and history of PPD
Bahrain								
F.H. Al Dallal and I.N. Grant (2012) (17)	cross-sectional	237	20 randomly chosen PHC centers and 2 clinics	Bahraini women	EPDS score ≥ 12	8 week	37.1%	history of depressive symptoms and perceived lack of support from the husband

Risk factors identified among the reviewed studies (Table 2)

Risk factor	
Physical (maternal/pediatric)	**No. of studies**
Low Hemoglobin levels	1
Anemia during pregnancy	1
Para women among normal delivery group	1
Women ≥ 6 weeks post C- section group	1
Poor health during pregnancy	1
Premature birth among poor health mother during pregnancy	1
Baby's birth weight	1
Not breast feeding	3
Giving birth to the first child	1
Cesarean delivery	1
Primiparity	1
Lack of antenatal care	1
Prolonged labor	1
Psychological	**No. of studies**
Previous psychiatric illness	2
Lifetime history of depression	2
Depression during pregnancy in both second and third trimesters	1
view of her weight and unaccepted self-body image	1
Past history of PPD	1
Social/cultural factors	**No. of studies**
Unwanted pregnancy	**3**
Stressful life events	**3**
Non-supportive husband	**2**
Women's employment status	**1**
Marital conflict and difficulties	**2**
Religion	**1**
Number of children	**1**
Poor relationship with mother-in-law	**2**
Marry in old age	**2**
Higher education	**2**

Education	**1**
Lack of emotional/ family support	**2**
Polygam	**1**
Father death before the age of 13	**1**
Having a relative with an alcohol problem	**1**
Occupation	**1**
Consanguinity	**1**
Access to transportation	**1**
Under 30 years old / Younger age	**1**
Mothers as housewives	**1**
Sickness of family member	**1**
Conflict with family members	**1**
Work difficulties	**1**
Low educational level	**1**

REFERENCES

[1] Shorey S, Chee CYI, Ng ED, Chan YH, Tam WWS, Chong YS. Prevalence and incidence of postpartum depression among healthy mothers: A systematic review and meta-analysis. J Psychiatr Res [Internet]. 2018;104(April):235–48. Available from: https://doi.org/10.1016/j.jpsychires.2018.08.001

[2] O'Hara MW, McCabe JE. Postpartum Depression: Current Status and Future Directions. Annu Rev Clin Psychol [Internet]. 2013 Mar 28;9(1):379–407. Available from: https://doi.org/10.1146/annurev-clinpsy-050212-185612

[3] American Psychiatric Association. DSM 5. Arlington. 2013.

[4] Mandelli L, Souery D, Bartova L, Kasper S, Montgomery S, Zohar J, et al. Bipolar II disorder as a risk factor for postpartum depression. J Affect Disord [Internet]. 2016;204:54–8. Available from: http://dx.doi.org/10.1016/j.jad.2016.06.025

[5] Stein A, Pearson RM, Goodman SH, Rapa E, Rahman A, McCallum M, et al. Effects of perinatal mental disorders on the fetus and child. Lancet [Internet]. 2014;384(9956):1800–19. Available from: http://dx.doi.org/10.1016/S0140-6736(14)61277-0

[6] Esscher A, Essén B, Innala E, Papadopoulos FC, Skalkidou A, Sundström-Poromaa I, et al. Suicides during pregnancy and 1 year postpartum in Sweden, 1980-2007. Br J Psychiatry. 2016;208(5):462–9.

[7] Mental W, Day H. A Global Crisis. 2012;

[8] Nielsen D, Videbech P, Hedegaard M, Dalby J, Secher NJ. Postpartum depression: Identification of women at risk. Br J Obstet Gynaecol. 2000;107(10):1210–7.

[9] Gjerdingen DK, Yawn BP. Postpartum Depression Screening: Importance, Methods, Barriers, and Recommendations for Practice. J Am Board Fam Med [Internet]. 2007;20(3):280–8. Available from: http://www.jabfm.org/cgi/doi/10.3122/jabfm.2007.03.060171

[10] Kelly RH, Zatzick DF, Anders TF. The Detection and Treatment of Psychiatric Disorders and Substance Use Among Pregnant Women Cared for in Obstetrics. Am J Psychiatry [Internet]. 2001 Feb 1;158(2):213–9. Available from: https://doi.org/10.1176/appi.ajp.158.2.213

[11] Beck CT. Predictors of postpartum depression: An update. Nurs Res. 2001;50(5):275–85.

[12] Dennis CL, Ross L. Women's perceptions of partner support and conflict in the development of postpartum depressive symptoms. J Adv Nurs. 2006;56(6):588–99.

[13] Eberhard-Gran M, Eskild A, Tambs K, Samuelsen SO, Opjordsmoen S. Depression in postpartum and non-postpartum women: Prevalence and risk factors. Acta Psychiatr Scand. 2002;106(6):426–33.

[14] Zhang R, Chen Q, Li Y. [Study for the factors related to postpartum depression]. Zhonghua Fu Chan Ke Za Zhi [Internet]. 1999;34(4):231—233. Available from: http://europepmc.org/abstract/MED/11326923

[15] Badr HE. Postpartum depression and health related quality of life: a necessary assessment. Int J Fam Community Med [Internet]. 2017;1(1):11–7. Available from: http://medcraveonline.com/IJFCM/IJFCM-01-00005.php

[16] Hamdan A, Tamim H. Psychosocial risk and protective factors for postpartum depression in the United Arab Emirates. Arch Womens Ment Health. 2011;

[17] Al Dallal FH, Grant IN. Postnatal depression among bahraini women: Prevalence of symptoms and psychosocial risk factors\rDepression postnatale chez des femmes bahreinies: Prevalence des symptomes et des facteurs de risque psychosociaux. East Mediterr Heal J [Internet]. 2012;18(5):432–8. Available from: http://www.emro.who.int/emhj/v18/05/18_5_2012_0432_0438.pdf%5Cnhttp://ovidsp.ovid.com/ovidweb.cgi?T=JS&CSC=Y&NEWS=N&PAGE=fulltext&D=emed10&AN=2012344193%3C275. %3E

[18] Yusuf A-H, Saudal SF. In tern a tio n a l Sch o la rs Jo u rn a ls A study of the prevalence of postnatal depression and its risk factors among Arab women. African J Nurs Midwifery ISSN. 2015;2(6):2198–4638.

[19] Al-Shami N, Abd El Atty Moawed S. Identification of Factors Associated with Postpartum Depression among Saudi Females in Riyadh City. 2010; Available from: http://hdl.handle.net/123456789/19373

[20] Gipson JD, Koenig MA, Hindin MJ. The Effects of Unintended Pregnancy on Infant, Child, and Parental Health: A Review of the Literature. Stud Fam Plann [Internet]. 2008;39(1):18–38. Available from: https://doi.org/10.1111/j.1728-4465.2008.00148.x

[21] Fischer RC, Stanford JB, Jameson P, DeWitt MJ. Exploring the concepts of intended, planned, and wanted pregnancy. J Fam Pract. 1999 Feb;48(2):117–22.

[22] Abdulwahab A, Almotairi A, Alkhamis W, Almutiari A. Prevalence of Unplanned Pregnancy and Its Psychological Effect among Pregnant Patients in King Khalid University Hospitals. 2018;70(January):943–7.

[23] Behavioural TI, Library SS. SOCIAL ORIGINS.

[24] Holmes TH, Rahe RH. The Social Readjustment Rating Scale. J Psychosom Res. 1967 Aug;11(2):213–8.

[25] Ystrom E. Breastfeeding cessation and symptoms of anxiety and depression : a longitudinal cohort study. 2012;

[26] Hatton DC, Harrison-hohner J, Coste S, Dorato V, Curet LB, Mccarron DA. Symptoms of Postpartum Depression and Breastfeeding. :10–5.

[27] Hamdan A, Tamim H. THE RELATIONSHIP BETWEEN POSTPARTUM DEPRESSION AND BREASTFEEDING*. J PSYCHIATRY Med J Psychiatry Med [Internet]. 2012;4343(3). Available from: http://dx.doi.org/10.2190/PM.43.3.d

[28] Almutairi AF, Salam M, Alanazi S, Alweldawi M, Alsomali N, Alotaibi N. Impact of help-seeking behavior and partner support on postpartum depression among saudi women. Neuropsychiatr Dis Treat. 2017;

[29] Al-Modayfer O, Alatiq Y, Khair O, Abdelkawi S. Postpartum depression and related risk factors among Saudi females. Int J Cult Ment Health [Internet]. 2015;8(3):1754–2863. Available from: http://www.tandfonline.com/action/journalInformation?journalCode=rccm20

[30] Koura M, Alasoom L. Predictors of postpartum depression in the eastern province capital of Saudi Arabia. J Fam Med Prim Care. 2014;

[31] Alharbi AA, Abdulghani HM. Risk factors associated with postpartum depression in the Saudi population. Neuropsychiatr Dis Treat. 2014;

[32] Alhammadi SM, Hashem LA, Abusbeih ZR, Alzaabi FS, Alnuaimi SN, Jalabi AF, et al. Predictors of postpartum depression in Dubai, a rapidly growing multicultural society in the United Arab Emirates. Psychiatr Danub. 2017;29(June):S313–22.

[33] Green K, Broome H, Mirabella J. Postnatal depression among mothers in the United Arab Emirates: Socio-cultural and physical factors. Psychol Health Med [Internet]. 2006;11(4):425–31. Available from: http://www.tandfonline.com/doi/abs/10.1080/13548500600678164

[34] Rizk DE, Nasser M, Thomas L, Ezimokhai M. Women's perceptions and experiences of childbirth in United Arab Emirates. J Perinat Med [Internet]. 2001;29(4):298–307. Available from: https://app.dimensions.ai/details/publication/pub.1011008977

[35] Abou-Saleh MT, Ghubash R. The prevalence of early postpartum psychiatric morbidity in Dubai: A transcultural perspective. Acta Psychiatr Scand. 1997;95(5):428–32.

[36] Burgut FT, Bener A, Ghuloum S, Sheikh J. A study of postpartum depression and maternal risk factors in Qatar. J Psychosom Obstet Gynecol [Internet]. 2013;34(2):90–7. Available from: http://www.tandfonline.com/doi/full/10.3109/0167482X.2013.786036

[37] Bener A, Burgut FT, Ghuloum S, Sheikh J. A Study of Postpartum Depression in a Fast Developing Country: Prevalence and Related Factors. Int J Psychiatry Med [Internet]. 2012;43(4):325–37. Available from: http://journals.sagepub.com/doi/10.2190/PM.43.4.c

[38] Al Hinai FI, Al Hinai SS. Prospective study on prevalence and risk factors of postpartum depression in Al-Dakhlyia governorate in Oman. Oman Med J. 2014;29(3):198–202.