

*Full Length Research Paper*

# A study of the prevalence of postnatal depression and its risk factors among Arab women

Al-Habsi Yusuf and Sayyid F. Saudal

Department of Maternal and Child Health Nursing, Faculty of Nursing, Sultan Qaboos University, Muscat, Oman.  
E-mail: [habsi.yusuf@hotmail.com](mailto:habsi.yusuf@hotmail.com)

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**Objective:** To describe the prevalence of postnatal depression and its risk factors among Arab women. Even though postnatal depression remains a worldwide phenomenon, there are continental variations in the prevalence rates and predictors. **Methods:** The prevalence of postnatal depression and its predictors remains influenced by the culture, tradition, values and beliefs among the Arab women. Since postnatal depression has effect on the mother and the baby, early diagnosis will help in implementing the preventive strategies to prevent worsening of the problem. Hence a narrative review of studies on prevalence postnatal depression and risk factors among Arab women will help in informing the current situation to public and health care providers. This review was conducted to describe the prevalence of postnatal depression and its risk factors among the Arab women during the past 7 years from 2005-2012. We searched the electronic databases SCIENCE DIRECT, PUBMED, CINHALL, EBSCO, SCOPUS, and UPTODATE to identify relevant studies. Initially 38 studies were identified potentially relevant and out of which 17 studies which met the selection criteria were included in the review. **Results:** Seventeen studies with a total of 9,132 Arab women were included in the narrative review. The maximum and minimum reported prevalence of postnatal depression were 10-80 % respectively. History of late prenatal depression, and anxiety, being first time mother with poor body self image, poor relationship with partner and in-laws, unplanned pregnancy, lack of social support, perceived low parental knowledge and preterm birth were the significant risk factors identified among the studies reviewed. **Conclusion:** This narrative review informs the current status regarding prevalence and risk factors for postnatal depression among Arab women and has implications for clinical practice. The review identified that postnatal depression among Arab women is highly significant than other cultures. Midwives and health care providers should therefore be trained and given opportunities to learn to identify the risk factors of postnatal depression to aid the mental wellbeing among postnatal mothers.

**Keywords:** Arab women, postnatal depression, risk factors, screening, prevalence.

## Abbreviations used:

EPDS- Edinburg Postnatal depression scale; BDI- Beck Depression Inventory; M. I.N.I- Mini International Neuro Psychiatric interview; STAIT- Spielbergers Trait-trait Anxiety inventory; DASS-21- Depression Anxiety Stress scale; MSSS- The Maternity Social Support Scale; CWS- the Cambridge

Worry Scale; PSES- Perceived Self-Efficacy Scale; PKS- Perceived Knowledge Scale; DUSOCS-Duke social support and stress scale; PSI/SF-Parenting stress index/short form; DSM-IV- the Diagnostic and Statistical Manual of Mental Disorders, 4th edition.

## INTRODUCTION

Postnatal depression ranges from mild self limiting depression called as postpartum blues or baby blues to postpartum major depression and postpartum psychosis. Most women are affected to mood symptoms in postpartum periods (4-6 weeks after the child birth). The symptoms relevant to baby blue are reported in most of these women which is a mood disturbance and is characterized by mood instability, feeling of unhappiness, feeling of dysphoric, mental confusion and weeping (Kaplan et al, 2009). Postpartum depression includes almost all the essential characteristics of depression along with sudden occurrences during the first four weeks after the childbirth (Videbeck, 2004). At the other end of the spectrum is postpartum psychosis, which is characterized by severely depressed mood, disorganized thinking, psychotic thoughts, and hallucinations. Often has its onset in close proximity to childbirth (Kendell, 1987; Monk - Olsen et al., 2006).

Despite the expectation of pregnancy and childbirth as being joyous occasion, often these are times of dynamic change for many women, catalyst for the new onset of depressive disorders or a precipitant for recurrent depression. Postnatal depression is the most common complication of childbearing, affecting 10-15 % of women and is indeed a public health problem, particularly as the incidence is much higher than the quoted rate of 10%—15% (Palo, 2009). An increasing amount of evidence now highlights that, for a relatively large proportion of women, the process of having a baby can trigger serious emotional problems and lead to a disturbing and sad time (Green et al., 2006).

Various risk factors have been identified for Postnatal depression in Arab women and include: multiparity, serious problems with the baby, poor relationship with the husband and / or relatives lack of social support, polygamy, not living with the extended family members and whether the baby was desired (Abou-Saleh and Ghubash, 1997; Danaci et al., 2001). While some of these factors may be problematic to women everywhere, some are closely linked to Arab women whose attitudes and beliefs are so inextricably intertwined with Islamic values and culture (Green et al., 2007)

Muslim women are raised with belief that their main objective in life is to produce and raise children (Ghubash et al., 1997). Robertson et al., 2004 in his review found that the following risk factors are the strongest predictors of postpartum depression (in increasing order of effect): depression during pregnancy, experience of stressful life events during pregnancy, low levels of social support, and previous history of depression. The cause of postnatal depression remains unclear, with extensive research suggesting a multi-factorial etiology. However, epidemiological studies and meta – analyses of predictive studies have consistently demonstrated the importance of psychosocial and psychological variable. While intervention

based on these variables may be the effective treatment strategies, theoretically they may also be used in pregnancy and the early postpartum period to prevent postpartum depression. (Dennis and Creedy, 2005) The 40-day postnatal period is characterized in the Middle East and elsewhere by an observance of seclusion, congratulatory visiting, the reciprocal exchange of gifts and money, and a special diet. Often postnatal checkups, family planning counseling, and immunization services may not be routinely available or used. It is argued that these health services could be provided at the end of the 40-day period for mother and child, as in a pilot study in Tunisia some years ago. Health service provision would thus build on the health enhancing practices of the 40-day period (Hunt et al., 2000).

### Objectives of the review

The primary objective of this literature review was to describe the prevalence of postnatal depression among Arab women. The secondary objective is to identify the risk factors of postnatal depression among the Arab women by reviewing the studies published between the years 2005-2012.

### The research questions

1. What are the prevalence rates of postnatal depression among the Arab women?
2. What are the risk factors for postnatal depression among the Arab women?

### Search strategy

A review of all published and unpublished literature related to prevalence and risk factors of postnatal depression among Arab women were conducted. The online databases SCIENCE DIRECT, PUBMED, CINHALL, EBSCO, SCOPUS, and UPTODATE were used for identifying relevant studies. Medical subject handling terms (MeSH ) and free text terms such as depression among Arab women, risk factors, depression in western cultures, Edinburg postpartum depression scale, Beck depression inventory were used for the search.

### Selection criteria

Studies were identified from international peer- reviewed journals that used descriptive, longitudinal, cross sectional, prospective and prevalence approaches in research. All published and unpublished studies, master's thesis, conference abstracts and presentations between the years 2005-2012, assessing the prevalence and risk factors for postnatal depression among the Arab population

were included in the review. A total of 38 articles were identified as potentially relevant. Studies which met the selection criteria were included in the review. Data from 17 studies were identified as potentially relevant and were abstracted into a standardized form.

### Data collection and analysis

All the reviewers participated in the scrutinizing process of the searched articles for its quality and involved in the data extraction. The 17 studies were reviewed by all the authors for the research approach; sample and population, setting, tools with its cut off scores, objectives, interventions with the outcome of the study.

### RESULTS OF THE SEARCH STRATEGY

A total of 17 studies were from United Arab Emirates 3, Turkey 1, Morocco 1, Tunisia 1, Egypt 1, Israel 2, Jordan 2, Libya 1, Istanbul 1, Bahrain 1, Iran 2, and Qatar 1 respectively. The summary of the studies has been shown in the table 1. A total of 9,132 Arab women were included in the reviewed studies. All the 17 studies reviewed (ref. table 1) showed that the postnatal depression rates were high when compared to women in other cultures. The depression rates among Arab women ranged from 17.6% (Bener et al., 2011) to a maximum of 80.7% (Naglaa et al., 2011).

### DISCUSSION

Postnatal depression accounts for a substantial share of global Burden of disease and has important implications for maternal well-being, mother child attachment, and child development. Summary of the studies reviewed shows (ref. table 1) comparisons with studies of postnatal depression in other Arab countries are difficult because of variability in the tools used (screening, standardized diagnostic tools) the point in time applied, different cut off points of the same tool and other cultural issues (Dallal et al., 2012). Most of the studies reviewed were done using brief one-dimensional instrument (mostly EPDS) with focus on prevalence and related risk factors. In this review seven studies used cut off scores  $\geq 10$  in the EPDS scale. 3 studies used BDI in combination with EPDS. Rest of the studies used different tools to assess postnatal depression.

The variability in the rate of postnatal depression among Arab women certainly shows that complex socio cultural factors exist during childbearing period. The

women in the modern Arab culture are vastly changing from traditional family roles to new working women roles

and are facing stress in relation to their changes. This may sometimes reduce their self esteem leading to depression during postpartum. Women may not have the empowerment to reject the traditional postnatal rituals imposed on them by their care givers. If the women had pre-existing unsatisfactory relationship with the ritual imposing care givers it may result in mothers experiencing stress during postnatal period. Diagnosis of postnatal depression not only depends on the length of time between delivery and onset, but also depends on the severity of depression. Conclusions regarding the significance of varying rates of depression must be interpreted with concern. Due to lack of experimental and control groups in the clinical studies and due to the time variations in application of the screening tools for postnatal depression may be one of the causes for varying rates of postnatal depression. Many studies have limitations in identifying the risk factors of postnatal depression as screening was done only after delivery and did not consider the time during pregnancy. Physical symptoms of depression like loss of control, first time mother's experience, irritability, loss of appetite, loss of weight, and decrease in libido cannot be assessed using the EPDS alone. Hence appropriate standardized tools for assessing the somatic symptoms should also be considered. O'Hara and Swain, 1996 reported in their meta analysis of previous studies about the psychosocial risk factors as marital problems, stressful life events, history of psychiatric problems, lack of social support as significant ones. An earlier study in UAE by (Ghubash et al., 1992) pointed out early depressive symptoms as an important predictor for postpartum depression. The early depressive symptom as defined by EPDS seven days after delivery and supports the use of EPDS as screening tool for early identification of postnatal depression.

Zubara et al., (2010) reported that factors such as socio economic status, biological factors and stigma associated with mental disorders may influence the expression of depressive symptoms and prevalence of postpartum depression. Literature supports that there is worldwide evidence that postpartum depression and prevalence figures may vary according to different countries even when the same tool is used.

Nahas et al., (2012) describes that very little information is available about postnatal depression in Middle Eastern women. This is supported by the study comparing Australian and Lebanese women conducted by De Costa (1991) in the western suburbs of Sydney highlighted some reasons that could cause postnatal Depression among Lebanese women and could be extrapolated to other groups of Middle Eastern Women.

Risk factors for postnatal depression include first birth, ambivalence about the pregnancy, lack of social support, economical problems, history of abortion, died infant, gender of infant, medical or surgical history, number of

**Table 1. SUMMARY OF THE STUDIES REVIEWED**

s.no	Name of the author & year	Research design	No:Sample	Time of visiting	setting	objectives and intervention	Tools used with cut off scores	Results/outcome
1.	Glasser etal (2011)	survey	Women attending the MCHC clinics. N=1,254 pregnant and 2,326 postnatal mothers	pregnancy & postnatal	Israel ministry of health MCHC clinics	Screening programme for assessing the rate of depressive symptoms in antenatal and postnatal women	Edinburg Postnatal Depression scale. cut off score- $\geq 10$	The rate of antenatal depression was 20.8% and during the postnatal period was 16.3%.
2.	Hamdan, A. Tamim, H. (2011)	Prospective study	137 pregnant women	Pregnancy	MCHC in Emirate of Sharjah	During the first data point, Beck depression inventory II, beck anxiety inventory (BIA), stressful life events Inventory and measure of religiosity were administered. Only participants who scored 10 or above on the EPDS (screening tool) were administered the MINI diagnostic tool.	BDI-II score, 0-13 was minimal depression, 14-19- was mild depression, 20-28- moderate depression and 29-63-severe depression. BIA-had 4 categories. 0-7 minimal anxiety, 8-15- mild anxiety, 16-25 moderate anxiety, 26-63 severe anxiety. The EPDS had cut off score of 10.	Using the M.I.N.I. diagnostic tool 10% of participants were diagnosed with postpartum depression.
3.	Green, K. Broome, H. Mirabella, J. (2006)	Longitudinal study	125 Emirati women who gave birth	Postnatal	government maternity hospital Abudhabi	This study sought to identify the prevalence and related socio-cultural and physical factors in Arab women from the UAE.	The tools used were socio demographic questionnaire and Edinburg Postnatal Depression scale. The EPDS 10 item tool having 3 categories of scores 0-9 no depression, 10-12 borderline depression, scores of 13+depression.were used in this study to interpret the findings.	It was found that at 3 months, sample had 22% of mothers falling into the Depression category and another 22% falling in the Borderline Depression category. At 6 months, this fell to 12.5% Depression category and 19.6% Borderline Depression category.

Table 1 continues

4.	Masmoudi, J, Tabelsi, S, Charfeddine, F, Ben Ayed B, Guermazzi M, & Jaoua A. (2008).	Survey design	213 postnatal Tunisian women	postnatal	Department of OBG of CHU of sfax, Tunisia	To estimate the prevalence of PNDP and assessed the effective temperamental profile of those affected.	Edinburg Postnatal Depression scale. cut off score- $\geq 10$ . The Arabic version of the temperaments auto questionnaire of Memphis, Pisa, Paris and San Diego (TEMPS-A) was also used. The subjects were divided into 2 subgroups, depressed versus not depressed groups for comparative analyses.	19.2 % had a score higher than 9 on the EPDS with depressed group. The EPDS scores were correlated with all temperamental scores, except for hyperthymic. Higher scores on the depressive, irritable, anxious and cyclothymic temperaments were observed in the depressed group.
5.	Ghubash, R & Eapen V. (2009).	Qualitative study	19 women attending a public sector clinic	pregnancy	public sector clinic in Al Ain, Abu Dhabi, and a private clinic in Dubai	Qualitative information gathered using focus group discussions of women of childbearing age is presented along with additional information obtained from key informant interviews with grandmothers, husbands, and health care professionals in the United Arab Emirates.	Focus group discussion had no scores.	The majority of the women who took part in the study did not recognize postnatal depression as a psychological issue but considered the problems a result of "evil eye" or "Jinn." The present findings suggest the need for initiating awareness programs among women and training of health professionals on the detection and management of postnatal depression.
6.	Eilat-Tsanani, S, Meron, A, Romano, S, Reshef, A, Lavi, I, & Tabenkin, H. (2006).	Telephone survey	574 woman who gave birth ,with 9.9% diagnosed with PNDP	postnatal	women who gave birth in HaEmek Medical Center-Israel	To identify patients with PPD and to describe their consultation patterns with primary care physicians for themselves and their babies.	Edinburg Postnatal Depression scale. cut off score- $\geq 10$	9.9% of the surveyed were diagnosed with postnatal depression.

Table 1 continues

7.	Gawass, M., Al-Maghur, L., Gantri, R., & Ragab, H. B. (2009).	Prospective study	100 postnatal Libyan women	postnatal	Obstetrics and gynecology department, Tripoli medical centre Tripoli, Libya	To identify the risk factors for the development of postpartum depression in Libyan women.	Edinburg Postnatal Depression scale. Cut off score- $\geq 10$ .	The study results showed that 43% of the patients were not depressed (EPDS 0-4), 15% had borderline depression (EPDS score of 5-9), while 42% suffered from Postpartum depression (EPDS $\geq 10$ ). The study also showed a strong relationship between the development of PPD and an unhealthy baby, neonatal death, previous bad obstetrics experience, low parity and higher level of education.
8.	Gungor,Ilkay,Oskay,Umran, Nezihe Kizilkaya (2011)	Case control study	149 preterm mothers in case group and 150 in control group	postnatal	Tertiary care hospital Istanbul	The study aimed to determine the bio-psychosocial risk factors for preterm birth in a sample of Turkish woman without chronic illness and evaluate their anxiety and depression in early postpartum period.	Multi dimensional scale of perceived social support, beck Depression Inventory and Speilberger's State-Trait Inventory were administered within 24-72 hours after birth	The study showed results as preterm births were associated with lower social support along with more anxiety and depressive symptoms in early postpartum. Increased maternal anxiety and depression reveal the necessity of emotional support immediately after birth.
9.	Dallal.F.H & Grant.I.N (2012)	Cross sectional descriptive study	237 Bahraini postnatal women	postnatal	20 randomly chosen Primary health centers and 2 clinics in Bahrain	This study estimated the prevalence of postnatal depressive symptoms and associated risk factors.	The Arabic version of the Edinburg Postnatal depression scale with cut off score $\geq 12$ was the tool used for the study.	More than one third (37.1%) of the women had EPDS score $\geq 12$ .

Table 1 continues

10.	Sadeghi Hashemi.Z., Forghani.F.(2006)	Azar.I.S., survey	408 postnatal women between 2-8 weeks after delivery	postnatal	Zabol ,city in south east of Iran	To determine the prevalence and risk factors of postpartum depression among women living in the city of Zabol, Iran.	The Beck Depression Inventory (BDI) was used. The scores of 9 and less a normal range, a score of 10-15 minimal depressive symptomatology, a score of 16-31 shows mild depression and score of 32-47 moderate depression score of $\geq 47$ indicate severe depression.	The prevalence of postpartum depression was (40.4%) during 2-8 weeks. 21.3% had minimal depressive symptomatology 33.6% had mild depression , 5.9% had moderate depression and 4 % had severe depression. Risk factors included younger age, low income families, unemployment, and history of depression, lack of family support, formula feeding, and relationship difficulties with spouse, parents or parents- in- law.
11.	Bener.A.,Burgut.T.F,Ghuloum .s , Sheikh.J.(2011)	Prospective cross sectional study	1669 mothers within 6 months after delivery	postnatal	Primary health care centers in Qatar	To determine the prevalence and identify the risk factors of postnatal depression among Arab women in Qatar	The Edinburgh Postnatal depression scale with cut off score- $\geq 10$ was the tool used for the study. A self administered questionnaire was also used to collect the socio demographic data and obstetric data.	The prevalence of postpartum depression among the study sample was 17.6%. Financial difficulties, prematurity, poor family support, dissatisfaction in family life, poor marital relationships were the predictors of postpartum depression.

Table 1 continues

12.	Najafi.k., Zarrabi.H.,Shirazi.M, Avakh.F.,Nazifi.F(2007)	Descriptive cross sectional study	335 women after 2 weeks of delivery	postnatal	Al Zahra hospital, Rasht city, Iran	To assess the prevalence and determinants of PPD using the Becks depression inventory.	The Beck Depression Inventory (BDI) was used. The scores of 9 and less a normal range, a score of 10-15 minimal depressive symptomatology, a score of 16-31 shows mild depression and score of 32-47 moderate depression score of $\geq 47$ indicate severe depression.	The overall prevalence of PPD was 20%. Regarding Beck depression inventory, 61 patients had mild depression and 6 patients suffered moderate depression. In these patients, unemployment,, history of abortion and infant deaths were significantly associated with PPD.
13.	Mohammad KI, Gamble J, Creedy DK (2011).	Prospective cross sectional study	353 Arabic speaking women in their last trimester of pregnancy	pregnancy	A teaching hospital and five health centers in Irbid city in Northern Jordan	To investigate the prevalence of depression during pregnancy and postpartum period for Jordanian women and identify the associated risk factors and maternity service delivery issues.	The Edinburgh Postnatal depression scale cut off score $\geq 10$ and Depression Anxiety and stress scale, perceived self efficacy scale, perceived knowledge scale were used initially. Later on after 6-8 weeks a telephone face-to- face interview was also conducted to complete the data collection.	High rates of antenatal (19%) and postnatal depression (22%) were reported. A regression analysis reveals at 6-8 weeks postpartum antenatal depression, unplanned pregnancy, and difficult relationship with mother in law, dissatisfaction with the overall care, stress, lack of social support, giving birth to female baby, feeling pressured to birth the baby quickly, and perceived low parenting knowledge were associated with postnatal depression.

Table 1 continues

14.	Nayel.T., Salameh M., Oweis Al., Hameed Amarnah M(2006).	Eid B.,	A cross sectional correlation design	300 postpartum women within first year postpartum	postnatal	4 maternal and child health centers in Amman Jordan	To estimate the prevalence of postpartum depression among Jordanian women, examine the relationships among the socio demographic variables, perceived postpartum stress, parenting stress, social support, postnatal depression and determine the best predictors of postpartum depression among Jordanian women.	Data were collected using the Edinburgh Postnatal Depression Scale (EPDS) cut off score $\geq 12$ , Perceived Stress Scale (PSS), Parenting Stress Index/Short Form (PSI/SF), Duke Social Support and Stress Scale (DUSOCS), and a Socio-demographic sheet designed for this study.	Results revealed high prevalence of postpartum depression, 42% of participants scored 13 or above on the EPDS. Lower income level, unplanned pregnancy, history of depression, perceived postpartum stress, parenting stress, perceived lower social support, and stressful relationships were significantly correlated with postpartum depression. Based on stepwise multiple regression; parenting stress, perceived postpartum stress, and perceived stressful relationships were significant predictors of postpartum depression among Jordanian women.
15.	NaglaaA.M., Ghadah A.M., Nadia A.S.,HamidaA.K.,Abdelhafez And Ahmed MA.(2011)		survey	110 pregnant women	pregnancy	El Emans Specialized Hospital, at Assuit City, Egypt.	To estimate the prevalence and severity of postpartum depression and examine the predictors for postpartum depression during first 3 months postpartum.	Three tools were used for data collection. Socio demographic data structured interview schedules, postpartum depression predictor's inventory (PDPI) and Edinburg postnatal depression scale cut off scores $\geq 12$ .	The main results in the postnatal period of the study revealed 44.5% of them feeling postpartum blues and 80.7% of the women had postpartum depression.

Table 1 continues

16.	Dinadar I, Erdogan S. (2007)	A descriptive and random survey method	679 mothers within first year of delivery	postnatal	9 public health centers in Turkey	To explore the prevalence of postpartum depression and potential risk factors giving rise to PPD among Turkish women.	The Edinburgh (EPDS) Postnatal depression scale cut off scores $\geq 12$ and its risk factor questionnaire were used during home visits.	The EPDS results revealed a 25.6% prevalence of higher-level of depression and 16.7% prevalence of lower-level of depression. The strong predictors of depression were previous psychiatric illness, smoking, lower economic status, relationship problems with husband or mother-in-law, dissatisfaction in social relations, previous loss of a baby and giving birth to a baby girl.
17.	Agoub M , moussaoui D, Battas O(2005).	survey	144 mothers at 2and 6 weeks postpartum and at 6 and 9 months after delivery.	postnatal	Ibn Rushd University psychiatric center, Casablanca, Morocco	To determine the prevalence and factors associated with postpartum depression among Moroccan mothers.	Tools used were Mini International Neuro psychiatric interview (M.I.N.I) and the Arabic version of Edinburg Postnatal Depression Scale (EPDS) with cut off scores $\geq 12$ .	18.7% met the DSM-IV criteria for depressive disorder in the 2 <sup>nd</sup> week after delivery. Depressive disorder was significantly associated with pregnancy complications, stressful life events during pregnancy, baby's health problems, and poor marital relationships.

**Table 2.** Risk factors identified among the reviewed studies

Physical factors	No of studies
History of depressive disorder during pregnancy	8
Smoking	1
Unplanned pregnancy/problems in accepting the pregnancy	4
Older age at marriage	2
Prematurity, recurrent infections of genito urinary tract	3
Previous bad obstetrics experience, low parity and higher level of education & lower level of education , lack of breast feeding	4
History of abortion, pregnancy complications	2
Younger age, formula feeding for infant	2
Giving birth to the first child	1
Psychological factors	No of studies
Stressful life events during pregnancy/difficult pregnancy	4
Baby's health problems/unhealthy baby	2
Parenting stress	1
Feeling pressurised to birth the baby quickly	1
Poor self body image and awareness of body weight	1
Death of baby/ neonatal death	3
Number of children	2
Personal stressful life events before pregnancy or following delivery	1
Perceived low parenting knowledge	1
Social relationship factors	No of Studies
Poor marital relationships	3
Lower economic status/low income	5
Problems with husband and or mother –in- law	5
Giving birth to a baby girl.	2
Financial difficulties, poor family support	2
Unemployment or employment status(4 studies)	4
Religion	1
Dissatisfaction in social relations	2
Lack of social/ family support	4

pregnancies, type of delivery, life stressor event, lack of partner, and a history of depression or another depression illness, and more.( Al-Shami et al., 2010). Previous history of depression or psychiatric disorders is the most common risk factor identified among the studies reviewed. The next strongest predictor identified is poor relationship with husband and or in-laws. Unemployment and low socio economic status also remains as major risk factor for postnatal depression. Summary of risk factors identified among the studies reviewed shows it can be identified and counseled respectively (ref table 2).

Yet, Gaps in research are especially high in Arab Middle Eastern populations (Yount K et al., 2012).This article has reviewed limited number of studies done among the Middle Eastern Arab population with the aim to visualize the prevalence and risk factors among Arab women.

This indicates that the health care personnel should be adequately trained to identify and manage the postnatal depression, make the women aware of the postnatal depressive symptoms and eliminate the risk factors. This can be enhanced by making routine screening in the antenatal and postnatal visits for postnatal depression. High risk population such as women with previous history of psychiatric illness, history of poor relationships need to be identified, in addition plans such as interventions for maternal competency, parenting help, social support networks. As we know that among the 22 Arab countries only a few countries have studies done on postnatal depression, and rest of the countries yet to publish their studies done. Little is known about studies done among postnatal depression in Oman. More research is needed to understand the mental health condition among Arab women in their postnatal period. In conclusion this review

suggests the need for more research in this area to identify postnatal depression and its risk factors among Arab women.

### Limitations of the search:

All the 17 studies reviewed were published between the years 2005-2012. Few studies were published in other than English language and were done recently and hence could not be included in the search. Among the 22 Arab countries few of them have published studies. Countries like Yemen, Oman, Syria, Sudan, Mauritania and Comoros have no clinical studies published (between 2005 -2012) regarding postnatal depression. Hence generalizing the findings among all Arab countries is difficult.

### Implications for practice:

Postnatal depression remains to be a problem with multi factorial risk factors. Hence interventions to identify the risk factors are important to tackle this problem. There is a need for multi disciplinary approach in identifying the prevalence and risk factors of postnatal depression. Researchers have to concentrate on interventional studies to reduce the potential risk factors of women during the postnatal period. By developing social support systems, counseling centers, routine antenatal and postnatal screening and self help groups for postnatal mothers it would help in reducing the prevalence rates of postpartum depression.

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