

## Postpartum Depression among Saudi Women at National Guard Hospital and Alyamama Hospital in Riyadh in 2014-2015

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### ABSTRACT

**Background:** Postpartum Depression (PPD) is defined briefly as a “complication of birth where its reasons are differing from a carrier mother to mother”. Symptoms of PPD resemble those of any other depression disorders but PPD is characterized by the time of occurrence and period than any other depression.

**Objectives:** This study aimed to estimate proportion of postpartum depression among Saudi women and identify the social and psychological factors that related to postpartum depression.

**Methods:** The study included 150 postnatal females, selected randomly in (2014 -2015). The data collected through structured questionnaires. The Edinburgh Postnatal Depression Scale (EPDS) was used to screen for PPD. **Result:** This study found that there was a strong statistical association between PPD and anxiety regarding baby's expenses (38.2%), PPD and having still births or babies born with health issues (62.6%). Also, in having PPD in a previous pregnancy (53.4%). In addition those who were having a history of depression associated with PPD (47.2%). Lastly, anxiety regarding baby's responsibilities had a border line association with PPD (69.9%). Also, we found that there was a strong associations between PPD and not receiving support from family or friends during pregnancy (35%), or from husbands during pregnancy (43.9%), not having husbands beside them during labor (55.3%), and not having a good marriage relationship (36.6%).

**Conclusion:** PPD was associated with stillbirth, unhealthy baby, history of PPD depression, anxiety about baby's responsibility or expenses, lack of support from family or husband and bad marriage.

**Keyword:** Postpartum depression- Depression- Psychological factors – Baby blues

### INTRODUCTION

A birth of baby causes different emotion ranging from happiness to fear and anxiety. Many mothers experience “baby blues” after child birth that include mood swings and crying sensitivity that resolve quickly without any interference. If they last for long duration it becomes a form of depression that is known as postpartum depression.

Postpartum Depression (PPD) is defined briefly as a “complication of birth where its reasons are differing from a carrier mother to mother”. Symptoms of PPD resemble those of any other depression disorders but PPD is characterized by the time of occurrence and period than any other depression. Symptoms of PPD may include loss of appetite, insomnia, intense irritability, anger, fatigue, lack of joy in life, sever mood swings and the most worrisome symptom is hearing thoughts of hurting self or baby. Untreated PPD may last for months or longer <sup>(1)</sup>. Factors leading to PPD are many but what this paper is interested is discussing the psychological and social factors.

Some examples on psychological factors are: having a history of abuse, having an existing mental illness and not wanting to have the baby. On the other hand social causes may include; the existence of support groups that she attends their support scissions or not, social avoidance and if her husband is standing beside her or not <sup>(2)</sup>.

The aim of this research is to measure proportion of postpartum depression in Saudi women. Also to identify the social and psychological factors that related to postpartum depression.

### METHODOLOGY

**Study design:** observational descriptive cross sectional-hospital based study

**Study area:** Saudi Arabia, Riyadh, Central Region (King Abdullaziz Medical City, Alyamamah Hospital)

**Study population:** study participants were postnatal females who delivered less than seven days at hospitals' gynecology wards and postnatal females after eight weeks of delivery at hospitals' OBGYN clinics. Ages are between 18-45 years old.

**Sample size & technique:** The study included 150 postnatal females, selected randomly. Females of medical disorders excluded.

**Data needs and collection tool:** the data collected through structured questionnaires, in addition to hospitals' documentations and records. Questionnaire was in English first then translated to Arabic. First section included socio-demographic information, second section included questions to determine whether or not the female had postpartum depression and the third and fourth

sections questioned about the psycho-social factors that are possibly leading to PPD.

Edinburgh Postnatal Depression Scale (EPDS) was used to screen for PPD. The questionnaire included 10 questions concerning common symptoms of depression. Each question scored on four-point scale from 0-3, with minimum and maximum scores being 0 and 3 points respectively. If final score was ten or more, depression is confirmed, but if the score was nine or less, it is negative for PPD and the female was normal.

Validity & reliability of questionnaires were tested prior to conduction of the study.

**Data analysis:** after clearance, the quantitative data were coded, entered, and analyzed using the statistical package for social science (SPSS) version 22. Descriptive analysis undertaken to present an overview of the findings in Tables. Percentages were calculated. The chi-square test was used.

**Ethical considerations:** permission obtained from both the hospitals' administrations and participants in order to proceed with data collection. Confidentiality was maintained.

**The study was done after approval of Al-Maarefa College for Science and Technology.**

## RESULTS

Table (1): It showed that 65% of sample is at a normal age of pregnancy between 23-35 years old and most of them along with the younger group have mild PPD. While, in the older group from 36-45 years are mostly experiencing moderate PPD. Sample participants are mostly married 87% and 48.59 of them have mild PPD. Severe PPD appeared in 57% of the divorced participants.

Table (2): It shows that moderate PPD was the highest in individuals who did not plan their pregnancies 41.8%. Those gone through assisted vaginal delivery were 39.29%, while, who had a dead born child were 37.5%. Who were unsatisfied with their baby's sex were 39.4%, while those with a past history of depression were 40.32%, and those who had PPD in their previous pregnancy were 43.94%. Also, those having a family member with PPD were 41.38%. In addition, those who were anxious about baby's responsibilities or about baby's expenses were 39.54% and 48.94% respectively. While severe PPD appeared as the highest in individuals whom their babies are born with health issues. A high percentage of severe PPD also appeared in individuals who were anxious about baby's expenses (34.04%) and those who had a family member with PPD (29.31%), in addition to those who had dead born children (29.17%). Mild PPD was the most prominent in individuals who undergone C-sections. Table (3): Statistical analysis was performed and it showed that there was a

strong statistical association between PPD and anxiety regarding baby's expenses ( $p=0.0000$ ), PPD and having still births or babies born with health issues ( $p=0.0017$ ). Also, in those having PPD in a previous pregnancy ( $p=0.0014$ ) and who had a history of depression, also was found statistically associated with PPD ( $p=0.018$ ). Lastly, anxiety regarding baby's responsibilities had a border line association with PPD ( $p=0.056$ ), while anxiety about baby's expenses showed a strong statistical association with PPD ( $p=0.0000$ ).

Table (4): It showed that moderate PPD appeared as highest in individuals who did not receive support from friends and family in pregnancy (37.21%), during labor (42.55%), those who did not receive support from husbands during pregnancy (46.3%), those who did not have their husbands next to them while giving birth (39.71%), and those who did not have a healthy marriage relationships (48.89%). Severe PPD was also high in those who did not receive support from friends and family (34.88%) and husband (33.3%) during pregnancy, those who did not receive support from friends and family during labor (31.92%), and those who did not have a good marriage 37.78%. Mild PPD was high in females who did not have their husbands next to them in labor.

Table (5): It revealed a strong associations between PPD and those who were not receiving support from family or friends during pregnancy ( $p=0.0012$ ), or from husbands during pregnancy ( $p=0.0001$ ). Also, those who were not having husbands beside them during labor ( $p=0.0001$ ), and not having a good marriage relationship ( $p=0.0000$ ).

Figure (1): The graph showed that most of sample populations are living in a rented apartment (43.1%) and most of them were experiencing a mild degree of PPD. While women who are living in their own houses showed a high percentage of having a moderate PPD equal to having a mild PPD.

Figure (2): The graph revealed that most of depressed samples were having a medium total monthly income (between 7,000 & 15,000 SAR/month) and they were mostly experiencing a mild degree of PPD.

Figure (3): The graph revealed that a high percentage (62.6%) of depressed sample were highly educated and 40.25% of them were having a mild degree of PPD

Figure (4): The chart revealed that about 51% of depressed sample were employed, mostly in full time jobs and had the highest percentage of moderate PPD. While, housewives (67.66% of the unemployed individuals) were mostly experiencing mild PPD.

**Table 1:** The relation of pregnancy age & social status with severity of PPD

Age at pregnancy								
	Mild PPD %	F	Moderate PPD %	F	Severe PPD %	F	Frequency	Total %
18-22	55.55	5	44.44	4	0	0	9	7.3
23-35	46.25	37	35	28	18.75	15	80	65.0
36-45	38.23	13	41.11	14	20.58	7	34	27.6
<b>Total</b>	44.71	55	37.39	46	17.9	22	123	100.0
Social Status								
	Mild PPD %	F	Moderate PPD %	F	Severe PPD %	F	Frequency	Total %
Married	48.59	52	38.31	41	13.08	14	107	87.0
Divorced	28.57	2	14.28	1	57.14	4	7	5.7
Widowed	11.11	1	44.44	4	44.44	4	9	7.3
<b>Total</b>	44.71	55	37.39	46	17.9	22	123	100.0

**Table 2:** The relation between severity of PPD & psychological risk factors

Factor	Yes							
	Mild PPD%	F	Moderate PPD%	F	Severe PPD%	F	Frequency	Percentage
Planned pregnancy	50	34	33.82	23	16.18	11	68	55.3
Vaginal delivery	45.67	37	41.98	34	12.35	10	81	65.9
Baby is alive and healthy	51.72	45	37.93	33	10.35	9	87	70.7
Baby has health issues	30.43	14	32.61	15	36.96	17	46	62.6
Mother is satisfied with baby's sex	47.78	43	36.67	33	15.55	14	90	73.2
Past history of Depression	33.87	21	40.32	25	25.81	16	62	50.4
Post-Partum Depression in last pregnancy	30.30	20	43.94	29	25.76	17	66	53.4
Anxious about baby's responsibilities	38.37	33	39.54	34	22.09	19	86	69.9

**Table 3:** The relation between severity of PPD & Psychological Risk factors

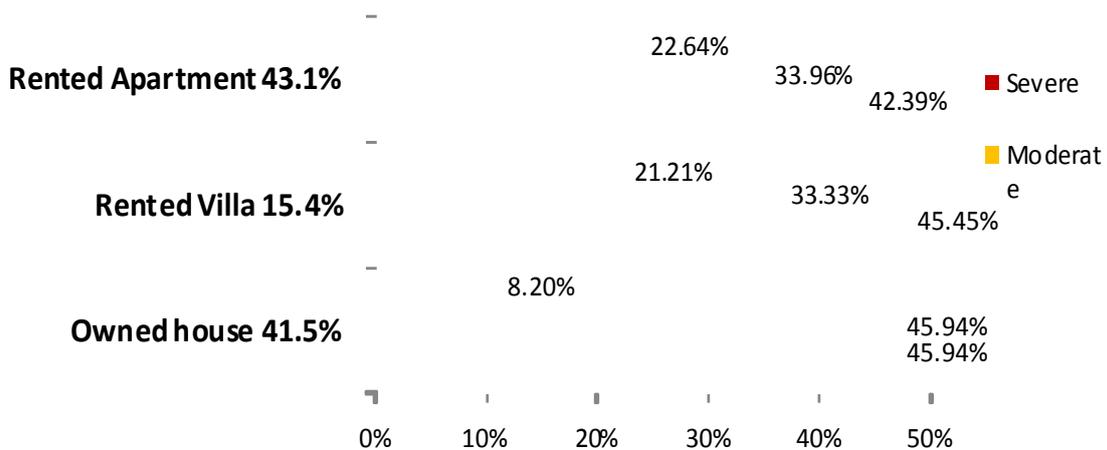
Factor	F	Mild PPD%	F	Moderate PPD%	F	Severe PPD%	Frequency	Percentage
Not planned pregnancy	21	38.2	23	41.8	11	20	55	44.7
Vaginal: assisted / induced	19	33.93	22	39.29	15	26.78	56	45.5
Emergency C. Section	13	43.33	9	30	8	26.67	30	24.4
Baby has health issues	14	30.43	15	32.61	17	36.96	46	62.6
Baby was born dead	8	33.33	9	37.5	7	29.17	24	19.5
Mother is not satisfied with baby's sex	12	36.36	13	39.4	8	24.24	33	26.8
Past history of Depression	21	33.87	25	40.32	16	25.81	62	50.4
Post-Partum Depression in last pregnancy	20	30.30	29	43.94	17	25.76	66	53.4
Family member had Post-Partum Depression	17	29.31	24	41.38	17	29.31	58	47.2
Anxious about baby's responsibilities	33	38.37	34	39.54	19	22.09	86	69.9
Anxious about baby's expenses	8	17.02	23	48.94	16	34.04	47	38.2

**Table 4:** The relation between severity of PPD & Social Risk factors

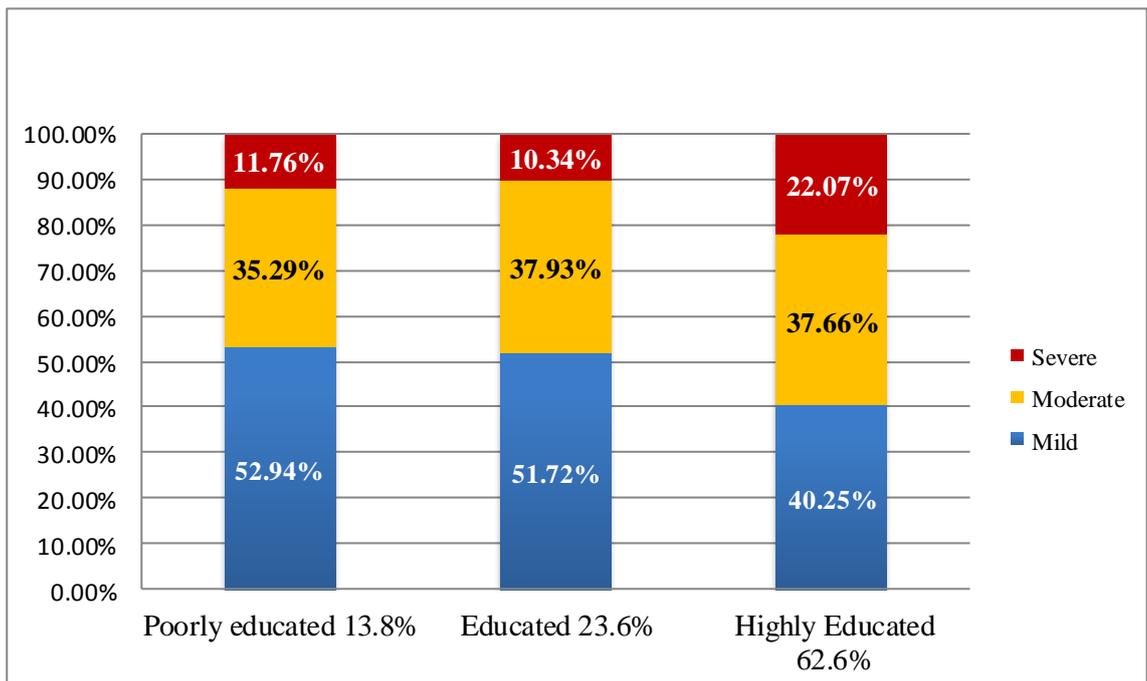
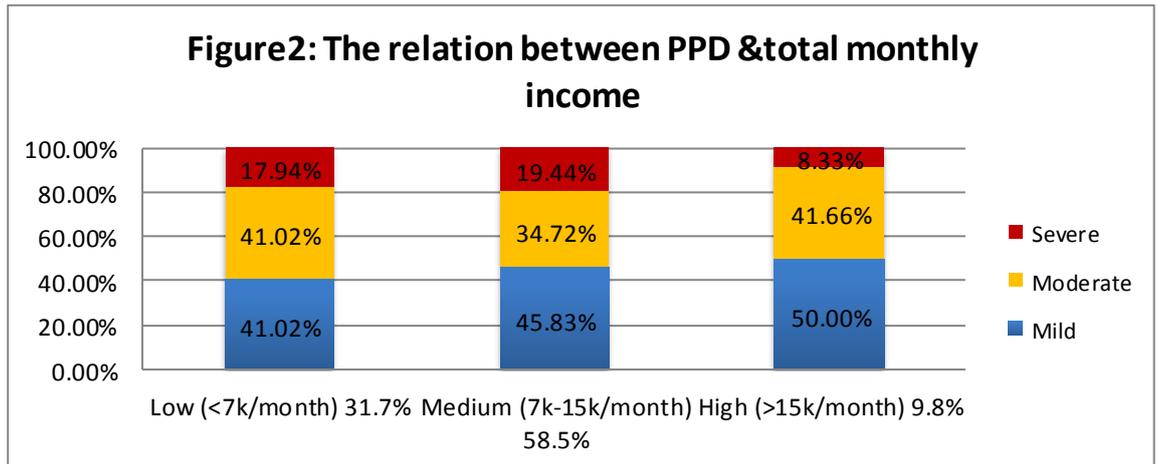
Factor	Yes							Frequency	Percentage
	Mild PPD%	F	Moderate PPD%	F	Severe PPD%	F			
	Support from friends and family while pregnant	53.75	43	37.5	30	8.75	7		
Support from friends and family during labor	56.58	43	34.21	26	9.21	7	76	61.8	
Husband’s support while pregnant	63.77	44	30.43	21	5.8	4	69	56.1	
Husband was beside her during labor	61.82	34	34.55	19	3.63	2	55	44.7	
Good marriage	62.82	49	30.77	24	6.41	5	78	63.4	

**Table 5:** The relation between PPD & Social Risk factors

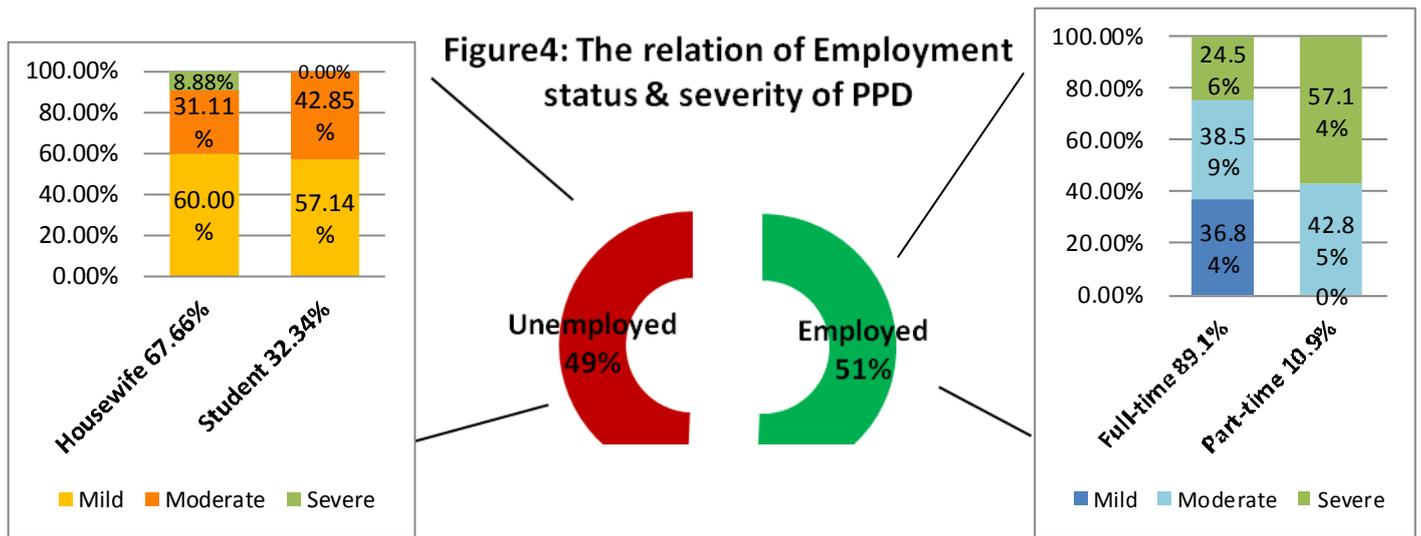
Factor	F	Mild PPD%	F	Moderate PPD%	F	Severe PPD%	Frequency	Percentage
Not supported from friends and family while pregnant	12	27.91	16	37.21	15	34.88	43	35
Not supported from friends and family during labor	12	25.53	20	42.55	15	31.92	47	38.2
No husband’s support while pregnant	11	20.4	25	46.3	18	33.3	54	43.9
No husband was beside her during labor	21	30.9	27	39.71	20	29.41	68	55.3
Not good marriage	6	13.33	22	48.89	17	37.78	45	36.6



**Figure 1:** The relation between severity of depression & type of place of living



**Figure 3: The relation between PPD & Educational level**



**DISCUSSION**

Postpartum depression (PPD) affects most of women after childbirth. Previous researches have been able to determine several risk factors for developing postpartum depression, and protective factors that lower chances or decrease the symptoms of PPD.

It's interesting to note that half of the participants who suffered from PPD had a history of depression. It was found that less than half had moderate PPD, and approximately quarter had severe PPD. History of depression significantly association with postpartum depression. The findings within this are largely in line with previous study done in Iran that found a higher incidence, more than half, of the sample suffered of PPD and also had a history of depression<sup>(3)</sup>. According to this study half of the women stated that they had history of PPD. There was significant association between previous history of PPD and suffering again from PPD. Similar findings were found in previous study done in Canada<sup>(4)</sup>.

In this study, more than half of the women who had stillbirth or delivered baby with health issues showed strong association with PPD. A study done in New York in 2008 found that parents of such infants were indeed more depressed than parents of normal babies. The data also indicates that all parents experience sadness, depression, anger and fear, but parents of normal babies experience less anger and sadness and depression. Many implications for social work practice education and research are indicated as a result of this study. This applies to this study as suffering depression after giving birth to a child with birth defects and congenital anomalies<sup>(5)</sup>.

In this study, it was found that the anxiety about baby's expense was a highly significant factor for PPD. The results found that unemployment and financial strain were associated with postpartum depression. Poor women who were responsible for the baby expenses were more likely to have PPD compared to the women who had better financial conditions. The study concluded that less than half of the women who have poor financial condition had PPD. According to the study done in Canada, there is an association between socioeconomic status and postpartum depression. While other studies done in India and China specifically done in low income populations, they found that financial strain was an important risk factor in postpartum depression within these populations<sup>(6)</sup>.

In this study, less than third of the women who did not receive support from their husbands during pregnancy showed strong or moderate PPD. There was significant association between absence of support during pregnancy and PPD. This is in agreement with a study done in Mexico in 2006, found that more than half of the women who found support from their spouses during pregnancy, had less depression, while women who did not have support had more depression<sup>(7)</sup>.

In this study, more than half of women who did not find their husbands beside them during labor showed strong or moderate PPD. This indicates that the absence of the husband during the labor is significant factor of PPD. This is similar to study done in The Cochrane in 2011, found that the presence of the husbands next to their wives during childbirth reduced the incidence of postpartum depression however; the

wives who did not find support are more depressed<sup>(8)</sup>.

This study found that women with better marital status were less likely to fall in PPD compared to the women who have troubled marital status. Results derived from a study done in Canada, indicated that there was association between poor marital relationship and postpartum depression<sup>(9, 10)</sup>.

### CONCLUSION

PPD was associated with stillbirth or unhealthy baby, history of PPD or depression, anxiety about baby's responsibility or expenses, lack of support from family or husband and bad marriage.

### RECOMMENDATIONS

The family environment and the spouse behavior should be supportive and helpful through pre- and post-delivery. Women should not feel guilty or responsible for any anomaly or disorder in the baby. The family should create better and healthier environment for the person who have previous history of PPD. Prenatal counseling is necessary. Allowing the husband and family to attend in labor room in governmental hospital.

### AUTHORS' CONTRIBUTION

All authors took part equally in writing, revising and final approval of the manuscript.

### CONFLICT of INTEREST

The authors have no conflict of interest to declare.

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