

# Impact of Depression in a Sample of Women during Pregnancy and Post Birth Child in Baghdad Governorate

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## Abstract

**Objective:** To reveal the fear depression during pregnancy and post birth child and its association with socio demographic characteristics.

**Methods:** A prospective, non-randomized, pre-post intervention study of 149 women during pregnancy and in the wake of the birth of a child in Baghdad governorate from 15<sup>th</sup> September 2019 to 1<sup>st</sup> march 2020.

**Results:** The result revealed that the mean age of the subjects was 25.09 ± 7.00 years, and the 69.1% were workers, and there was associations were determined between the risk of depression and low education level, workers women, history of psychiatric, history of abortion, occupation and abortion history are significant in terms of antenatal depression (p<0.05).

**Conclusion:** There was association risk of depression consistent with the EPDS in women period of being pregnant. And this was related to many socio demographic variables. This reveals the want for pregnant women to even be evaluated employing a holistic approach involving condition as well as socio demographic and medication characteristics once undergoing medical analysis.

**Keywords:** Depression • Mental disorders • Physiological

## Introduction

Period of being pregnant is a state of sensitive for women; it's not emotional stability as thought with in the past, but a time of biological and psychological changes [1]. Mental disorders in pregnancy have more prevalence than preeclampsia, preterm childbirth or gestational diabetes [2].

Pregnancy could be advanced physiological development involving convoluted interactions and feedback loops between varied hormones with continuous variation in their levels throughout its 3 trimesters [3]. Depression, a serious mental unhealthiness worldwide, lowers quality of life and leads high productivity losses by impacting on functioning, creativity, happiness and satisfaction. Studies have unconcealed an inflated risk of depression with fertility processes in ladies aged 18-44 [4,5]. In physiological condition the higher prevalence of Mental disorders have more than preeclampsia, preterm organic process or state polygenic disorder [2]. Perinatal depression typically remains UN recognized by the health care workers; however its early detection and treatment may forestall the event of postnatal depression. one in every of the explanations why it remains un recognized is also as a result of depressive symptoms will be pregnancy symptoms which can embody sleep disturbances, inconstancies in appetite, loss of ability, weariness, and change in sexual desire changes in pregnant girls mood are among stronger foreteller for the event of postnatal depression which they represent risk for the mother additionally as for the kid [6-8]. many risk factors are shown to incline to the event of prenatal depression, a number of which may which will act as important predictors for its onset, as well as unwanted/ unplanned physiological condition, poor social support, low income, trying life events so and so forth, all of them tributary to reinforce the vulnerability, for depression to turn up [9]. Failure to diagnose depression in pregnancy can bring about to terribly severe medical specialty and baby outcomes in each mother and craniate as monoamine neurotransmitter and Cortef elevation related to changes

within the system system throughout pregnancy cut back blood flow to the womb [10].

## Materials and Methods

### Design of the study

A prospective, non-randomized, pre-post intervention study of 149 women

**Setting of the study:** The study is conducted at Al Elweya Maternity Hospital and Al-Imamin Al-Jawadin Teaching Hospital during the period

**The sample of the study:** Collected by direct interview using special questionnaire to acquire socio-demographic information (age, education, occupation etc). By mistreatment Edinburgh Postpartum Depression Scale (EPDS) may be a set of ten screening queries which will indicate whether or not a parent has symptoms that are common in girls with depression and anxiety during pregnancy and in the year following the birth of a child.

### Statistical analysis methods

**Descriptive statistics:** The following statistical data analysis approaches were used in order to analyzes and assesses the results of the study:

a- Tables (Frequencies, Percentages).

b- Mean of Score (M.S.), Standard Deviation, Relative Sufficiency (RS).

### Inferential statistics

These were used to accept or reject the statistical hypotheses, which included the following:

a- Chi-Square test for testing the independency distribution of the observed frequencies and there is non restricted of an expected outcome.

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b- Binomial test for testing the different of distribution of the observed frequencies of two categories nominal /or ordinal scale and there is non restricted of an expected outcomes at 50%.

## Results and Findings

This part presents the findings of data analysis methodologically in tables, figures and these identify with the aim of this study, and as follows:

### Sample primary variables

**Part 1:** The distribution of parents by socio-demographical characteristics: Table 1A represented the division of variables according to Socio-Demographic Characteristics (SDCv.) of pre and postnatal depression concerning studied women among a sample in Baghdad city, as well as comparison's significant regarding comparing the observed distribution with an expected outcomes under assumption a similarity status among different levels of each variable whether they having the same proportion or not.

Result shows that distribution of studied women has a high significant different at  $P < 0.01$  concerning age groups, with mean and standard deviation 25.09, and 7.00 yrs. respectively. Most of studied pregnant women has a low educated levels, such as (Illiterate, Read and write, and Primary school), since they are accounted 90(60.4%), and had significant different at  $P < 0.05$ . Finally, most of studied pregnant women has worker occupation, and they are accounted 103(69.1%), and had no significant different at  $P > 0.05$ .

### Distribution of reproductive characteristics variables

Table 1B represented distribution of the reproductive information concerning pregnancy, as well as comparisons significant regarding comparing the observed distribution with an expected outcomes under a similarity distribution assumption among different levels of each variable whether they having randomly distribution proportion or not.

Prime parity status has a similar to multi parity statistically, since not significant differed, and most of studied cases has female infant gender, since they are accounted 100(67.1%), and had a highly significant different at  $P < 0.01$  compared with those who had male infant. Studied pregnant women who assigned having history of psychiatric status accounted 27(18.1%), as well as highly significant different at  $P < 0.01$  compared with who hadn't history of psychiatric condition. Finally, studied pregnant women who assigned having history of abortion status are accounted 37(24.8%), as well as highly significant different at  $P < 0.01$  compared with who hadn't

history of abortion condition.

### Essential part

Table 2A shows a summary statistics of "Edinburg Postnatal Depression Scale-EPDS" items of pregnancy women with comparisons significant along studied (Pre, and Post) periods among studied sample in Baghdad city. Results of testing significant with reference of studied items, as well as scoring scales evaluated concerning how pregnancy women have felt, and taking into consideration the answer check that comes relative to how "in the past 7 days", not just how feel today.

Results shows that seven items numbered (1, 2, 4, 5, 6, 9, and 10) are reported low evaluation at pre time to moderate at the post time with HS differences at  $P < 0.01$ , as well as item (7) had reported moderate evaluation at pre time to high level at the post time with highly significant differences at  $P < 0.01$ , while items (3 and 8) had the same evaluation of moderate level throughout studied periods, and that could be enable to confirms impact of felt concerning pregnant women postpartum depression complication of childbearing.

Table 2B shows summary statistics of overall evaluation concerning "Edinburg Postnatal Depression Scale-EPDS" items of pregnancy women in compact form with comparison significant along studied (Pre to Post) periods among studied sample in Baghdad city.

Results shows that no possible depression are accounted at the pre time, since global mean of score was recorded less than 10 (Possible Depression: 10 or greater), while possible depression had appointed at the post time, since global mean of score was recorded more than 10, as well as highly significant different are accounted at  $P < 0.1$  due to comparing between the studied periods (Table 2C).

Relationships concerning pregnant women due to postnatal depression scale and their SDCv. and reproductive markers to find out relationships between an overall evaluation of Edinburg postnatal depression scale items of pregnancy women along (pre-post) periods of applying proposed postnatal depression scale according to global of score in compact form in disparity of overall studied items through transforming the listed responses in quantitative scales using percentile transformation technique in relative to different (SDCv.) of the studied subjects and some reproductive variables, Tables 2,3 included Analysis of Covariance (ANCOVA).

Results shows that significant differences at  $P < 0.05$  were reported for studied (SDCv.) of the studied subjects concerning education level,

**Table 1A.** Distribution of Parents according to SDCv.

SDCv	Groups	no	Percentage	C.S. P-value
Age group	<20	36	24.2	$\chi^2 = 93.356$ P=0.000 (HS)
	20-24	52	34.9	
	25-29	36	24.2	
	30-34	14	9.4	
	35-39	11	7.4	
	Total	149	100	
	Mean $\pm$ SD	25.09 $\pm$ 7.00		
Education	Illiterate	24	16.1	$\chi^2 = 8.333$ P=0.026 (S)
	Read and write	24	16.1	
	Primary school	42	28.2	
	Secondary school	22	14.8	
	Institute or Collage	37	24.8	
	Total	149	100	
Occupation	House wife	35	23.5	$\chi^2 = 91.705$ P=0.080 (NS)
	Worker	103	69.1	
	Student	11	7.4	
	Total	149	100	

**Note:** HS: Highly Significant. S: Significant. Testing based on One-Sample Chi-Square test.

**Table 1B.** Distribution of reproductive variables and Information concerning pregnancy with comparisons significant.

RCv.	Groups	No.	%	C.S. P-value
Parity	Prime Para	79	53	P=0.512 NS
	Multi Para	70	47	
	Total	149	100	
Infant Gender	Male	49	32.9	P=0.000 HS
	Female	100	67.1	
	Total	149	100	
History of Psychiatric	Yes	27	18.1	P=0.000 HS
	No	122	81.9	
	Total	149	100	
History of Abortion	Yes	37	24.8	P=0.000 HS
	No	112	75.2	
	Total	149	100	

**Note:** HS: Highly Sig. at P<0.01; NS: No Significant.

**Table 2A.** Descriptive Statistics concerning Edinburg postnatal depression scale items of pregnancy women with comparisons significant.

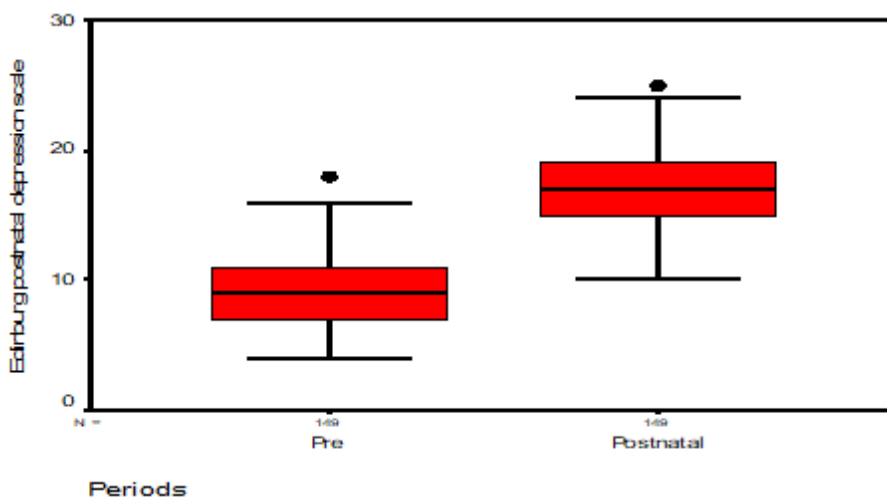
EPDS Items	No.	Pre MS	SD	Ev.
I even have been to see the funny facet of thing and i have been to laugh	149	0.85	0.96	L
I have looked forward with pleasure to things	149	0.88	0.92	L
I have blamed myself unnecessarily when incorrect things	149	1.7	1.13	M
I have nervous or anxious for no good reason	149	0.83	0.95	L
I have felt shocking or panicky for no reason	149	0.69	0.85	L
some things have been getting on top of me	149	0.66	0.87	L
I have been unhappy that I have had hard sleeping	149	1.33	0.86	M
I have wretched or felt sad	149	1.34	0.89	M
I have been so sad that I have been crier	149	0.7	0.87	L
The think of harming myself has happened to me	149	0.28	0.6	L

**Note:** HS: Highly Sig. at P<0.01; S: Sig. at P<0.05; Testing based on Wilcoxon Signed Ranks Test.

**Table 2B.** Descriptive Statistics concerning an overall Edinburg postnatal depression scale items of pregnancy women.

No.	Pre			Post			C.S.
	GMS	PSD	Evaluation	GMS	PSD	Evaluation	
149	9.26	2.87	No Depression	17.05	3.13	Possible Depression	0.000 HS

**Note:** HS: Highly Sig. at P<0.01; Testing based on Wilcoxon Signed Ranks Test; Possible Depression: 10 or greater.



**Figure 1.** Shows stem-leaf plot of an overall Edinburg postnatal depression scale items in compact form of studied pregnancy women.

and occupation, while no significant differences were reported at  $P > 0.05$  concerning the left over sources of variations (Figure 1).

## Discussion

Depression is the one of the health problems among women, is suffered by women in fertility periods and its increases with pregnancy.

In this study, maximum of the pregnant women belongs to the age 20-24 years the finding of the current study is agreement with findings reported in Turkey [11], reported that mean age was  $27.54 \pm 6.2$  years and age is significantly associated with onset of depression but this result disagreement with the study done in Pakistan [12]. The high associations were determined between the risk of depression among pregnant women and low education level similarly the study conducted in Turkey [11], Croatia and in Hungarian, renowned that pregnancy depression was seen among pregnant women who had educational level was low with an unsatisfactory income [13,14].

In terms of occupation, 69.1% of the expectant moms on this examine were working, and no sizeable variant in chance of depression changed into decided some of the occupational groups. In a examine expectant mothers. In a study from in Turkey. Yanikkerem, et al. reported significantly higher depression scores among housewives compared to working pregnant women, while in their study from Ankara reported lower mean depression scores among housewives compared to working women. This distinction can be attributed to the opportunity of the look at businesses having special socioeconomic, sociocultural, educational, spousal and familial characteristics [15,16].

The result of this lookat confirmed that the identified a records of psychiatric because the maximum important danger element for melancholy at some stage in being pregnant. in addition the look at carried out in Turkey [11], and in Brazil [17], This might be defined through the intellectual fitness of ladies with no preceding enjoy of being pregnant can be adversely stricken by physiological and hormonal changes happening with inside the frame considering they're experiencing these for the first time.

Also, this result shows Significant associations were determined between the risk of depression among pregnant women and history of abortion. The finding of the current study is agreement with findings reported in Ethiopia and in Iran reported that reported much higher prevalence of depression in pregnant women with past history of abortion. The result of this study also showed that the possible depression had appointed at the post time since global mean of score was recorded more than 10 similarly the study conducted in Turkey and Erbil [18-21]. According to studies from other countries and cultures, prevalence's of antepartum depression have been reported of 15.5% in Malta [22], 30.0% in Finland [23], and 19.6% in Brazil [24]. According to a comparative study involving Nicaragua and the Netherlands [25], the prevalence of depression during pregnancy is 54.0% in Nicaragua and 6.0% in the Netherlands. The difference between the two countries may be attributed to levels of development, and may also reflect the importance that they attach to psychosocial services Pregnancy is known to cause different changes in a woman's life, therefore pregnancy period can be exacting. Also, this might due to mother's understanding and approval with changes that occur along with their first pregnancy [26,27]. Mothers will requirement social support to put her through transference period on becoming a mother. Even if pregnant mothers have poor marital adjustment, they still can get support from prolonged families, neighbors, and the health care provider.

## Conclusion

There was a high associated risk of depression as stated by to the EPDS in women during pregnancy and this was correlating with low

educational level, employment women, history of psychiatric and abortion. This uncovers the need for pregnant ladies to try and be assessed utilizing a comprehensive methodology including condition along with socio segment and prescription attributes once going through clinical examination.

## Recommendation

1- To reduce the danger of antenatal melancholy, fitness care companies are advocated to behavior a ordinary pressure evaluation and positioned an intensive obstetric records recording.

2- Health companies worrying for girls have to be aware about private and epidemiological elements that vicinity girls maximum at danger for antenatal melancholy.

3- In addition, open dialogue approximately antenatal melancholy may also assist lessen the stigma related to melancholy and inspire girls to are looking for assist.

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