

## ORIGINAL ARTICLE

**Frequency of Depression in Pregnant Patients Presenting to Antenatal Clinic. A Cross-Sectional Study**SADIA ABDUL JABBAR<sup>1</sup>, AYESHA SIDDIQA BUTT<sup>2</sup>, AMJAD HUSSAIN BALOUC<sup>3</sup>, WALEED AKHTAR<sup>4</sup>, ZUHAIB MUHAMMAD ALI<sup>5</sup>, MAMONA ABDUL JABBAR<sup>6</sup><sup>1</sup>Consultant Psychiatrist Head of Department Psychiatry, DHQ hospital, Mianwali, Pakistan.<sup>2</sup>Senior Registrar, Department of Psychiatry Akhtar Saeed Medical College & Hospital, Lahore, Pakistan.<sup>3</sup>Assistant Professor and Head of Department Psychiatry, Pir Abdul Qadir Shah Jilani Institute of Medical Sciences, Gambat, Pakistan.<sup>4</sup>Senior Registrar, Psychiatry Avicenna Hospital and Medical College, Lahore Pakistan.<sup>5</sup>Resident Psychiatry, Jinnah Hospital Lahore, Pakistan.<sup>6</sup>PGR 1 Psychiatry, Services Hospital Lahore, Pakistan.Corresponding to: Ayesha Siddiqi Butt, Email: [d.ayesha.siddiqi@gmail.com](mailto:d.ayesha.siddiqi@gmail.com)**ABSTRACT**

Depression is one of the most common complications in pregnancy. Pregnancy, however, makes women more vulnerable to psychological and emotional issues like anxiety, depression, stress & psychoses, which can have a negative impact on the mother and the foetus. Depression is one of the most common complications in pregnancy.

**Objective:** To determine the frequency of depression in pregnant patients presenting to antenatal clinic in Jinnah Hospital, Lahore.

**Study Design:** A Cross-sectional study.

**Setting:** Department of Obstetrics & Gynaecology, Jinnah Hospital, Lahore.

**Methodology:** Total 250 females meeting the inclusion criteria were selected from the OPD. Then patients were assessed by using BDI scoring system by researcher herself. If BDI score was  $\geq 11$ , then depression during pregnancy was labeled (as per operational definition). All this information was recorded through proforma (attached).

**Results:** The mean age of the women was  $32.37 \pm 8.10$  years. There were 109(43.6%) women with less than equal to 20 weeks of gestational age and 141(56.4%) were having gestational age more than 20 weeks. The mean BDI score was  $10.42 \pm 9.24$ . There were 45 (18%) women with depression and 205(82%) women were having no depression.

**Conclusion:** In this study frequency of depression among pregnant women was 18%. However there was no significant association between depression and age, gestational age, parity, BMI and education status of women.

**Keywords:** Depression, Pregnant women, Antenatal clinic.

**INTRODUCTION**

Pregnancy is considered as a sign of emotional health. Pregnancy, however, makes women more vulnerable to psychological and emotional issues like anxiety, depression, stress & psychoses, which can have a negative impact on the mother and the fetus.(1) Due to the numerous changes that come with pregnancy, pregnant women are more prone to developing mental disorders like depression throughout the prenatal period.(2)

Depression is one of the common complications in pregnancy.(3) Over time, the clinical definition of depression disorder has developed and become more exact. According to some studies, postpartum depression is less common than depression during pregnancy.(4) Depression symptoms throughout pregnancy occurred frequently. Higher levels of education, planned pregnancies, continuing pregnancies & experiencing or having experienced psychological trauma were related variables.(5)

South Asians had a crude prevalence of 17.5%, Middle Easterners 19.5%, Western Europeans 8.6% & other groups 11.3%.(6) In a study, conducted in Australia, the prevalence of depression was 24.7% during pregnancy.(7) One study, conducted in 2019, the frequency of depression during pregnancy was 13.0%.(8) While one study conducted in Turkey, frequency of depression was 53.8% in pregnant females.(9)

**Rationale of Study:** The aim of the study was to find the frequency of depression in pregnant patients presenting to antenatal clinic. Literature has showed that the frequency of depression among pregnant females varies from country to country. In developed countries. But the data regarding incidence of depression among pregnant females in Pakistan is not available. So present study was conducted for the awareness of people. This research helped to get local evidence and if frequency found to be higher, then it was recommended for the screening of depression among females belonging to local population. So that they may be helped on time to get relieve from depression as well as they get motivation till completion of pregnancy. This helped current study to obtained magnitude in local population, also to improve our

practices and update guidelines to prevent and manage of pregnant females for depression during antenatal period.

**METHODOLOGY**

This cross-sectional study was conducted March to august 2020 from Obstetrics & Gynecology Department, Jinnah Hospital, Lahore. Sample size of 250 patients was calculated with 5% level of significance, 3.5% margin of error and taking expected percentage of depression i.e. 8.6% among pregnant females.

All pregnant females of age 18 to 45 years presenting to OPD parity < 5 were included. Patient with non-psychiatry illness diagnosed before pregnancy and having severe medical disorders along with pregnancy pre disposing patients to depression were excluded. The demographic data including name, age, parity, gestational age, BMI, education, occupation and socioeconomic status was noted. Then patients were assessed by using BDI scoring system by researcher herself. If BDI score was  $\geq 11$ , then depression during pregnancy was labeled.

Data was analyzed through SPSS version 21. Age, BMI, gestational age and BDI score was presented as mean & SD. Education, socioeconomic status, occupation and depression was presented as frequency & percentage. Parity was also presented as frequency. Age, gestational age, parity, education, socioeconomic level, occupation, and BMI were used to stratify the data. Post-stratification, Stratified groups were compared using the chi-square test, with a p-value of 0.05 considered significant.

**Exclusion and Inclusion Criteria:** Exclusion and inclusion criteria for Cross-Sectional study to determine the frequency of Depression in pregnant patients

Inclusion criteria	Exclusion criteria
BDI score was $\geq 11$	occupation
250 females were consider	frequency & percentage
$21 \geq$ Age	Obese criteria
socioeconomic level	Jaundice
Post-stratification	Malnutrition
Family stress	education
	working group women

**RESULTS**

Total 250 patients were included. The mean age was 32.37±8.10 years. There were 109(43.6%) women with less than equal to 20 weeks of gestational age and 141(56.4%) were having gestational age more than 20 weeks. There 84(33.6%) women with parity one, 76(30.4%) were having parity two and 90(36%) women were having parity three. There were 80(32%) women with normal BMI, 87(34.8%) were overweight and 83(33.2%) were obese. Shows in Table: 1

There were 71(28.4%) women with no formal education, 59(23.6%) had up to primary education, 55(22%) had education up to matric and 65(26%) women were having bachelors. There were 141(56.4%) women living in joint family and 109(43.6%) were living in nuclear family. There were 129(51.6%) working women and 121(48.4%) were house wives. Shown in Table: 2

The mean BDI score was 10.42±9.24. There were 45 (18%) women with depression and 205(82%) women were having no depression. Table: 3 shows that, there was no significant association between depression and age groups and gestational age. P> 0.05.

Parity, BMI & Occupational status were no significant association with depression. P-value was not significant. (p-value > 0.05). Table: 4 shows this

Table 1: Descriptive of Age, Gestational age, Parity and BMI

	Mean+ SD	Frequency (%)
Age	32.37+ 8.10	
Gestational Age of Women	<20 weeks	109(43.6%)
	>20 weeks	141(56.4%)
Parity	One	84(33.6%)
	Two	76(30.4%)
	Three	90(36%)
BMI	Normal	80(32%)
	Overweight	87(34.8%)
	Control	83(33.2%)

Table 2: Frequency of Educational, Family and Occupational Status

	Frequency (%)	
Educational Status	No Formal Education	71(28.4%)
	Up to Primary	59(23.6%)
	Up to Matric	55(22%)
	Bachelors	65(26%)
Family Status	Joint	141(56.4%)
	Nuclear	109(43.6%)
Occupational Status	Working	12(51.6%)
	Housewife	121(48.4%)

Table 3: Frequency of BDI score and Depression

	Mean+ SD	Frequency (%)
BDI Score	10.42+9.24	
Depression	Yes	45
	No	205

Table 4: Depression Stratified for Age, Gestational Age, Parity, BMI & Occupation

		Depression		P value
		Yes	No	
Age group	18-27	19(23.2%)	63(76.8%)	0.19
	28-37	15(18.8%)	65(81.3%)	
	38-47	11(12.5%)	77(87.5%)	
Gestational Age	< 20 Weeks	19(17.4%)	26(18.4%)	0.83
	>20 Weeks	90(82.6%)	115(81.6%)	
Parity	One	16(19%)	68(81%)	0.62
	Two	11(14.5%)	65(85.5%)	
	Three	18(20%)	72(80%)	
BMI	Normal	15(18.8%)	65(81.3%)	0.94
	Overweight	16(18.4%)	71(81.6%)	
	Obese	14(16.9%)	69(83.1%)	
Occupation	House wife	22(17.1%)	107(82.9%)	0.69
	Working Women	23(19%)	98(81.0%)	

**DISCUSSION**

Postpartum depression is a mood disorder with symptoms include changes in sleep and food habits, weariness, sadness, sobbing, worry & a guilty feeling associated to being able to care for the baby are all indications.(10) One type of depressive episode that

occurs within a year following childbirth is postpartum depression, using the standardized statistical & diagnostic manual. It's a significant public health issue that affects mothers in low & middle-income nations by 17% & 19%.(11)

Across their whole lifespan, women are believed to be significantly affected by mood disorders. They occur frequently during the prenatal and postpartum periods and have a significant impact on the health of the women and their unborn children. Such an effect is really noteworthy. These outcomes can range from decreased mother-infant relations and maternal suicide to the most extreme options of infanticide and neonatal problems.(12)

The antenatal period is considered to be one of the most compelling & crucial period for both the expecting mother & the growing fetus for it might have major side effects. A mother goes through a lot of physical and psychological changes during this time. Therefore, it can be concluded that depression during pregnancy has severe and harmful effects on both the growing foetus and the soon-to-be mother. (13)

Additionally, it is very simple to mistakenly attribute it to the typical physiological changes that accompany pregnancy, such as difficulty sleeping and changes in appetite. Antepartum depression, often known as postpartum depression, is a type of clinical depression. It should be treated equally significant and with no different treatment.(14)

Intrauterine growth retardation is just one of the harsh consequences of depression on the developing foetus. These effects may extend into the postpartum period as the far more difficult-to-handle and manage failure to thrive. Antenatal depression upsursges the risk of postpartum depression.(15)

One study reported that 62% of the pregnant women in the rural Sindh in Pakistan(16) are tested to suffering from depression compared to 36% of women from southern villages of Pakistan which is highest as compared to other studies and also highest as compared to the depression in pregnancy among women as in our study it was 18%.(17) Similar to the results of our findings, another study that was done in Hyderabad revealed an 18% prevalence of depression.(18)

According to Ethiopia study, the prevalence of antenatal depression was 24.4% while in our study the prevalence of depression was 18% which almost same as compared to above mentioned study.(19) A study conducted in a hospital<sup>69</sup>, frequency of depression was 35.6%. (20) A single study from Brazil found that the prevalence of prenatal depression was significantly greater than our findings (37.8%).(21)

The lower incidence in these countries may be attributable to the superior antenatal care, better prenatal nutrition, and absence of stressful life events including financial difficulties. Studies conducted in developed nations have revealed rates above 20%.(22, 23,26) According to Fadzil et al., the prevalence rates of symptoms of pregnancy depression was 10.3% which is very less as compared to our study as in our study the depression among pregnant women was 18%.

According to one study, only gestational age of < 20 weeks & depressive disorder remained the significant factors in the multivariate analysis whereas in our study there was no significant association between gestational age and depression. (7-9)

A Spain study looking into the incidence of prenatal depression during pregnancy discovered that the overall sample had a prevalence rate of 14.8%.(24,26) Similarly, studies from Pakistan reported prevalence rates of Depression to be 64%.(25-26) but a recent study from Punjab, where most Pakistanis in Norway originally come from, reported even higher Rates.(14)

The symptoms of maternal depression are a factor in the unfavourable patterns of health care seeking among women and their children.<sup>83</sup> Low birth weight and poor nutritional status of the newborn are positively correlated with depression during the prenatal period. In Pakistan, in-law relationships, cultural & social standards may all have a lasting impact on women's mental health. Although suicides are not very common among pregnant women,

this study shows that these women frequently experience the want to harm themselves, especially if they develop depression of any kind during their pregnancy.(26)

## CONCLUSION

In this study frequency of depression among pregnant women was 18%. However, there was no significant association between depression and age, gestational age, parity, BMI and education status of women.

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