

Factors of Depression and its Prevalence among Pregnant Females Attending Antenatal Clinics in Pakistan

RIZWAN FAROOQ¹, SAIMA AFSAR², MUNTAAZIR MEHDI³, MUHAMMAD ALI JAFFAR⁴, SARA ASHFAQ⁵, USMAN AMIN HOTIANA⁶

¹Assistant Professor Psychiatry, Behavioral Sciences PGMI/AMC/LGH, Lahore Pakistan

²Consultant Psychiatry, Timergara Psychiatry Clinic, Timergara Pakistan

³Assistant Professor Psychiatry, Sahiwal Medical College, Sahiwal Pakistan

⁴House Officer Psychiatry, Sahiwal Teaching Hospital, Sahiwal Pakistan

⁵Consultant Physician, FCPS (Medicine), Fellowship in Endocrinology and Diabetes (SKMCH), Lahore

⁶Professor Psychiatry, Behavioral Sciences, Rashid Latif Medical and Dental College, Lahore Pakistan

Corresponding author: Saima Afsar, Email: drsaimaafsar@yahoo.com, Cell: +923369924839

ABSTRACT

Depression is a disorder that affects the persons mood and its incidence is one in four females occurs at any time in their lives, so it's no wonder that pregnant women are also affected by this condition. However, depression during pregnancy is often misdiagnosed as fluctuations in a woman's hormone levels are believed to be the cause of many of these changes. In the hope that a diagnosis can, be made at a very early stage and that preventive measures can be taken later, the first step is to govern the pervasiveness of depression in pregnant females. The available evidence of depression in pregnancy varies widely. We need relatively short estimates to determine the severity of a depressive illness and develop a coping strategy for disorders of depression.

Aim: To access the depression prevalence among pregnant females admitted to the gynecology department.

Place and Duration: In the Psychiatry department of Behavioral Sciences PGMI/AMC/LGH, Lahore and Timergara Psychiatry Clinic in Pakistan for the duration of six months from September 2021 to February 2022.

Methods: Data were gathered from 250 pregnant women by randomly collecting samples during their antenatal visits. The Depression Standard Scale named the "Hamilton Rating Scale for Depression," was used and depression was labelled if score greater than 7 on the Standard Rating Scale. The analysis of the result was performed using the SPSS program and chi-square test.

Results: The incidence of depression in gravid females was 82%. The study found 45 (18%) completely normal, 100 (40%) mild depression, 65 (26%) moderate depression, 28 (11.2%) had severe depression, and 12 (4.3%) were very severe depression. 0.013 was a statistically significant value of P.

Conclusion: The data showed increased prevalence of depression among pregnant females in Pakistan, reaching 82%. Depression is much common in younger females, those with fewer births and pregnancies, and those living in a shared family system.

Keywords: Depression; Prevalence; Pregnancy and Prenatal period; Psychiatric disorders and Mood disorders.

INTRODUCTION

Pregnancy and its related issues have become a public health problem all over the world. Pregnancy and the subsequent transition to motherhood are associated with significant psychological and social changes related to anxiety and depressive symptoms in women¹⁻². There are many risk factors that may predispose to depression during pregnancy³⁻⁴. Stressful life events such as inadequate antenatal care, malnutrition, gender discrimination, violence, economic instability, mental disorders history, previous miscarriages, previous postpartum complications and still childbirth are some of the events you experience during pregnancy⁵⁻⁶. Additional influences comprise marital status, maternal age, pregnancy, whether was spontaneous or planned, level of social support and long-term birth history⁷. All above mentioned important facts incline the females towards the antenatal depression⁸⁻⁹. Few analyses suggest that gravid females with depression are at increased danger of birth complications or miscarriage; It's as well recognised that there is a robust relation between preterm labor and antenatal stress or LBW, and sometimes both¹⁰. One Pakistan study found an augmented incidence of depression amongst females, but overall, there is little evidence of antenatal depression, especially among women living in Pakistan's rural areas¹¹. Conferring to the Aga Khan University Hospital research, the prevalence of depression amongst gravid females in rural Pakistan is as high as 63%¹². It is clear from recent studies that the rate of depression in women at childbirth is much greater than other life span. Depression rates assessed during pregnancy can range from 8-16% in established states as compared to 20-26% in subordinate republics¹³⁻¹⁴.

Our study was directed to access the depression prevalence among pregnant females admitted to the gynecology department.

METHODS

This cross-sectional study was conducted in the Psychiatry department of Behavioral Sciences PGMI/AMC/LGH, Lahore and Timergara Psychiatry Clinic in Pakistan for the duration of six months from September 2021 to February 2022. Data were gathered from 250 pregnant women aged 18-45 years by randomly collecting samples during their antenatal visits. Multi-para and Primipara females are included. And females with any grave medical issue that lead to a level of depression associated with any disease were omitted.

The Depression Standard Scale named the "Hamilton Rating Scale for Depression," was used and depression was labelled if score greater than 7 on the Standard Rating Scale. The scale contains 17 items for sleep disorders, mood disorders, suicidal tendencies, somatic symptoms, genital symptoms, weight loss and psychomotor disorders during gestation. A higher score means more stress. The result is interpreted as: 0-7 score as Normal, Mild if 8-13 scores, Moderate if 14-18 scores, Severe depression if 19-22 score and Very Severe if > 23. Socio-demographic features such as mother's age, menstruation, birth rate, family status and the husband's earning capacity were also taken into account. The purpose of the analysis was clarified to each contributor and all participants were assured about data confidentiality. During antenatal- visits; researchers interviewed all subjects which lasted 10-15 mints. Sociodemographic details and variables were collected and assessed for depression by means of standard questionnaire, Hamilton rating scale, the scale was interpreted into the local language, and results were prepared during the discussion. Ethical consent was taken prior to study. In this analysis, the pregnancy was taken as independent variable and the depression was taken as dependent variable. Descriptive analysis of the data was done with SPSS 21.0. The chi-square test was used for bivariate analysis. 0.013 was a statistically significant value of P.

RESULTS

The age of the patients, pregnancy, number of deliveries, years from marriage and the occurrence of the first menstruation are presented as mean ± SD (Table 1).

Table-1: shows the patients age, features and analysis

Variables	Number	Median	Standard deviation
Age	250	27.00	4.485
Gravida	250	3.00	1.805
Para	250	2.00	1.501
Years since marriage	250	4.000	4.112
Onset of menarche	250	15.00	1.201

The study found 45 (18%) completely normal, 100 (40%) mild depression, 65 (26%) moderate depression, 28 (11.2%) had severe depression, and 12 (4.3%) were very severe depression (Table 2).

Table-2: shows percentage of Depression scale score

S. No	Frequency	Percentage	Valid %	Cumulative%
Normal 0-7	45	18.0%	18.0%	18.0%
Mild 8-14	100	40%	40%	5320.0%
Moderate 15-18	65	26.0%	26.0%	80.1%
Severe 19-22	28	11.2%	11.2%	9104.0%
Very severe >23	12	4.38%	4.38%	100%

The general incidence of depression was determined. Pairwise analysis between the sociodemographic modes of detail and the total depression score was performed using The Chi-square test was used to determine the total score of depression and socio demographic details were analysed with bivariate analysis. Comparisons were made between family statuses. Depression was more common in females residing in a shared family system (Table 3).

Table-3: shows the family statuses Comparison

		Score					Total
		Normal (0-7)	Mild (8-13)	Moderate (14-18)	Severe (19-22)	Very severe (>23)	
Family status	Joint family	35	70	45	19	8	177
	Nuclear family	10	30	20	9	4	73
Total		45	100	65	28	12	250

DISCUSSION

The disorders of mood are believed to affect females disproportionately throughout their lives. It occurs regularly in the prenatal and postnatal periods and has a significant impact on the well-being of women and their children¹⁵. This effect is much pronounced. These significances may comprise neonatal and obstetric problems, decreased maternal-infant interaction and, in life-threatening cases, infanticide and maternal suicide. The antenatal period is supposed to be the important periods for both the developing fetus and expectant mother, as it can have serious complications. During this period, the mother experiences many physiological and emotional changes¹⁶. So, it can be said that depression during gestation has harmful and serious complications for both the mother and developing fetus. It can be confused easily with the normal physiological changes that happens during pregnancy, such as appetite fluctuations and sleep problems¹⁷. Like other clinical depressions, it can be called pregnancy depression or antenatal depression¹⁸. It is not to be treated as anything else, and it is just as important to be treated. The depression aggressive effects on the developing fetus start early in the antenatal period and are much more difficult to control, such as

intrauterine growth retardation and developmental delay that may persist into the postpartum period¹⁹. In addition, there are many opportunities for developmental delays, including mental illness, poor attachment to the mother, and mental failure. Prenatal depression is not much different from what it used to be and increases the risk of postpartum depression. A depressed mother attends the antenatal clinics less frequently and is prone to abuse of substance. The depression and anxiety in gestation can be harmful by interfering with the elimination of aggregated neuroendocrine messengers and vasoactive hormones, which may rise the hypertension risk²⁰. It is probable that depression will cause changes in vessels and, over time cause pre-eclampsia. About 63% of expectant females in Sindh, Pakistan, and 36% of women in villages in southern Pakistan are reportedly depressed²¹. Conferring to this analysis, depression is communal and the information show that it is around 82% when the Hamilton Depression Rating Scale is used. Rich-Edwards et al noticed that the mothers young age was the sturdiest forecaster of depression in antenatal period because it was related with unwanted pregnancies, financial difficulties, and no support from the spouse. Many women in Pakistan marry very young, few were 16 years of age, which may explicate the complex incidence of antenatal depression observed in this analysis²². This analysis confirmed the augmented pervasiveness of depression in medium and low socioeconomic status, demonstrating the significance of screening and pre-treatment during antenatal visits. The increased incidence of depression in gestation amongst Pakistani females is a public concern of health²³. Antenatal depression is strongly related with low nutritional status and low birth weight of the new-born. Consequently, poor health outcomes are perceived. In Pakistan, cultural practices, social norms have an important part in females' mental wellbeing²⁴. The depression in antenatal period increases the danger of postnatal depression, and both postnatal and prenatal depression have a profound effect on baby's healthiness. Though mother mental healthiness is now an overlooked significance in health authorities, our analysis highlight this issue of health and will help in future research²⁵.

CONCLUSION

Many pregnant women struggle with antenatal depression. According to this study, its prevalence has been estimated at 82%, and the depression severity ranges from mild to severe. The most common form of depression was its mild form. The incidence is higher among young women with low parity and living in a shared family system. This study results show that the incidence of antenatal depression, which can be detected early in antenatal visits, is the tip of a huge hidden and invisible iceberg. Syndromic depression in pregnant females far outweighs subliminal depression. Many sub-syndromic cases can become syndromic much later, so the necessity for primary recognition is critical. Given the risk factors, and the suspicion rate is relatively high, this may allow for early diagnosis and the necessary intervention for antenatal depression.

REFERENCES

- Guo N, Robakis T, Miller C, Butwick A. Prevalence of depression among women of reproductive age in the United States. *Obstetrics and gynecology*. 2018 Apr;131(4):671.
- Sheeba B, Nath A, Metgud CS, Krishna M, Venkatesh S, Vindhya J, Murthy GV. Prenatal depression and its associated risk factors among pregnant women in Bangalore: a hospital based prevalence study. *Frontiers in Public Health*. 2019 May 3;7:108.
- Zegeye A, Alebel A, Gebrie A, Tesfaye B, Belay YA, Adane F, Abie W. Prevalence and determinants of antenatal depression among pregnant women in Ethiopia: a systematic review and meta-analysis. *BMC pregnancy and childbirth*. 2018 Dec;18(1):1-1.
- Ma X, Wang Y, Hu H, Tao XG, Zhang Y, Shi H. The impact of resilience on prenatal anxiety and depression among pregnant women in Shanghai. *Journal of affective disorders*. 2019 May 1;250:57-64.
- Kajdy A, Feduniw S, Ajdacka U, Modzelewski J, Baranowska B, Sys D, Pokropek A, Pawlicka P, Kaźmierczak M, Rabijewski M, Jasiak H.

- Risk factors for anxiety and depression among pregnant women during the COVID-19 pandemic: A web-based cross-sectional survey. *Medicine*. 2020 Jul 7;99(30).
6. Okagbue HI, Adamu PI, Bishop SA, Oguntunde PE, Opanuga AA, Akhmetshin EM. Systematic review of prevalence of antepartum depression during the trimesters of pregnancy. *Open access Macedonian journal of medical sciences*. 2019 May 5;7(9):1555.
 7. Pearson RM, Carnegie RE, Cree C, Rollings C, Rena-Jones L, Evans J, Stein A, Tilling K, Lewcock M, Lawlor DA. Prevalence of prenatal depression symptoms among 2 generations of pregnant mothers: the Avon longitudinal study of parents and children. *JAMA network open*. 2018 Jul 6;1(3):e180725-.
 8. Abrahams Z, Lund C, Field S, Honikman S. Factors associated with household food insecurity and depression in pregnant South African women from a low socio-economic setting: a cross-sectional study. *Social psychiatry and psychiatric epidemiology*. 2018 Apr;53(4):363-72.
 9. Coll CD, da Silveira MF, Bassani DG, Netsi E, Wehrmeister FC, Barros FC, Stein A. Antenatal depressive symptoms among pregnant women: Evidence from a Southern Brazilian population-based cohort study. *Journal of Affective Disorders*. 2017 Feb 1;209:140-6.
 10. Woldetensay YK, Belachew T, Tesfaye M, Spielman K, Biesalski HK, Kantelhardt EJ, Scherbaum V. Validation of the Patient Health Questionnaire (PHQ-9) as a screening tool for depression in pregnant women: Afaan Oromo version. *PloS one*. 2018 Feb 6;13(2):e0191782.
 11. Silva MM, Nogueira DA, Clapis MJ, Leite EP. Anxiety in pregnancy: prevalence and associated factors. *Revista da Escola de Enfermagem da USP*. 2017 Aug 28;51.
 12. Levis B, Negeri Z, Sun Y, Benedetti A, Thombs BD. Accuracy of the Edinburgh Postnatal Depression Scale (EPDS) for screening to detect major depression among pregnant and postpartum women: systematic review and meta-analysis of individual participant data. *bmj*. 2020 Nov 11;371.
 13. Shorey S, Chee CY, Ng ED, Chan YH, San Tam WW, Chong YS. Prevalence and incidence of postpartum depression among healthy mothers: a systematic review and meta-analysis. *Journal of psychiatric research*. 2018 Sep 1;104:235-48.
 14. Getinet W, Amare T, Boru B, Shumet S, Worku W, Azale T. Prevalence and risk factors for antenatal depression in Ethiopia: systematic review. *Depression research and treatment*. 2018 Jul 9;2018.
 15. Osok J, Kigamwa P, Stoep AV, Huang KY, Kumar M. Depression and its psychosocial risk factors in pregnant Kenyan adolescents: a cross-sectional study in a community health Centre of Nairobi. *BMC psychiatry*. 2018 Dec;18(1):1-0.
 16. Jha S, Salve HR, Goswami K, Sagar R, Kant S. Burden of common mental disorders among pregnant women: A systematic review. *Asian journal of psychiatry*. 2018 Aug 1;36:46-53.
 17. Smith CA, Shewamene Z, Galbally M, Schmied V, Dahlen H. The effect of complementary medicines and therapies on maternal anxiety and depression in pregnancy: a systematic review and meta-analysis. *Journal of affective disorders*. 2019 Feb 15;245:428-39.
 18. Warzecha D, Szymusik I, Wielgos M, Pietrzak B. The impact of endometriosis on the quality of life and the incidence of depression—A cohort study. *International Journal of Environmental Research and Public Health*. 2020 May;17(10):3641.
 19. Nasiri S, Akbari H, Tagharrobi L, Tabatabaee AS. The effect of progressive muscle relaxation and guided imagery on stress, anxiety, and depression of pregnant women referred to health centers. *Journal of education and health promotion*. 2018;7.
 20. Gelaye B, Addae G, Neway B, Larrabure-Torrealva GT, Qiu C, Stoner L, Fernandez MA, Sanchez SE, Williams MA. Poor sleep quality, antepartum depression and suicidal ideation among pregnant women. *Journal of affective disorders*. 2017 Feb 1;209:195-200.
 21. Bodaghi E, Alipour F, Bodaghi M, Nori R, Peiman N, Saeidpour S. The role of spirituality and social support in pregnant women's anxiety, depression and stress symptoms. *Community Health Journal*. 2017 May 9;10(2):72-82.
 22. Vargas-Terrones M, Barakat R, Santacruz B, Fernandez-Buhigas I, Mottola MF. Physical exercise programme during pregnancy decreases perinatal depression risk: a randomised controlled trial. *British journal of sports medicine*. 2019 Mar 1;53(6):348-53.
 23. Wang T, Fu H, Kaminga AC, Li Z, Guo G, Chen L, Li Q. Prevalence of depression or depressive symptoms among people living with HIV/AIDS in China: a systematic review and meta-analysis. *BMC psychiatry*. 2018 Dec;18(1):1-4.
 24. Ongerli L, Wanga V, Otieno P, Mbui J, Juma E, Stoep AV, Mathai M. Demographic, psychosocial and clinical factors associated with postpartum depression in Kenyan women. *BMC psychiatry*. 2018 Dec;18(1):1-9.
 25. Rogathi JJ, Manongi R, Mushi D, Rasch V, Sigalla GN, Gammeltoft T, Meyrowitsch DW. Postpartum depression among women who have experienced intimate partner violence: A prospective cohort study at Moshi, Tanzania. *Journal of affective disorders*. 2017 Aug 15;218:238-45.