



A Study To Assess The Level Of Anxiety And Depression Among Antenatal Mothers In Selected Hospital

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Abstract: The period before parturition is honored as a precarious occasion, posing raised troubles for the emergence of psychiatric conditions, whether pre-existing or recently evolved. On a global scale, current mental health conditions similar to depression and anxiety significantly contribute to maternal morbidity and mortality, representing a substantial challenge. This burden is particularly pronounced in low- and middle-income nations. Objectives: 1. To assess the level of anxiety and depression among antenatal mothers. 2. To assess the correlation between anxiety and depression among antenatal mothers. 3. To find the association between the level of anxiety and depression with selected demographic variables among antenatal mothers. Methodology: A quantitative research approach and descriptive research design was used. 100 antenatal mothers from Antenatal OPD, Thiruvallur Government Medical College and Hospital, were selected as a study sample by using a non-probability purposive sampling technique. The investigator collected data using the self-administered Perinatal Anxiety Screening Scale (PASS) and Edinburg Postnatal Depression Scale (EPDS) to assess anxiety and depression among antenatal mothers. The data was analyzed using descriptive and inferential statistics. Results: The study results showed that the majority 73(73%) had mild to moderate anxiety, 17(17%) had asymptomatic, and 10(10%) had severe anxiety. While 35(35%) had likely not had depression, 25(25%) had probable depression and 10(10%) had a fairly high possibility of depression. While positive correlation ($r=0.708$) between anxiety and depression. Conclusion: The findings of the study indicated that most mothers experienced anxiety and depression during pregnancy and also revealed a positive correlation between anxiety and depression. The study finding highlights the importance for healthcare professionals and policymakers to screen for mental health issues, implement targeted interventions, and enhance antenatal care services.

Keywords- Antenatal Mother, Anxiety, Depression

I. INTRODUCTION

Pregnancy is a transformative experience that involves many changes and challenges, both physically and emotionally. It's important for expecting mothers to take care of themselves and seek support when needed to ensure a healthy and positive pregnancy journey. While traditionally viewed as a time of emotional fulfilment, the gravid period can potentially spark or consolidate emotional challenges, posing pitfalls to both the gestation and the later postpartum period. While pregnancy is generally viewed as a period of emotional well-being, numerous women experience confusion, fear, sadness, anxiety, stress, and indeed depression during this time. Mental health, a pivotal aspect of reproductive well-being, is constantly overlooked. also, the lack of systematic screening frequently leads to undetected prenatal

mental diseases. A study by Priya and Adity (2018) revealed prevalence rates of 25.5% for depression, 63% for anxiety, and 23% for stress, indicating the severity and rigorousness of these mental health challenges. Prenatal anxiety refers to the commonness of excessive worry, fear, and apprehension during pregnancy, surpassing the typical concerns associated with impending paternity. On the other hand, antenatal depression involves tenacious feelings of sadness, forlornness, and a diminished sense of well-being that extends throughout the gravid period. Both conditions can manifest alone or coexist, enhancing the emotional toll on expectant moms.

II. LITERATURE REVIEW

According to Singh & Metgud, (2022) investigated the prevalence of anxiety among antenatal mothers in Belagavi through a cross-sectional research design involving 320 pregnant women. The data collection process utilized a structured questionnaire. The results revealed a 31.2% prevalence of antenatal anxiety, with 30% experiencing mild to moderate levels and 1.2% experiencing severe levels. The prevalence was higher among younger women and those with lower literacy status. The study's results also highlight important demographic correlations, with younger women and those with lower literacy status exhibiting higher rates of antenatal anxiety. These findings have implications for targeted interventions and support services. This study contributes meaningfully to the existing literature on antenatal anxiety and highlights the need for increased awareness and support for pregnant women in Belagavi.

According to Insan et al., (2023) explored the social determinants and prevalence of antenatal depression among women in Rural Bangladesh. In a cross-sectional study involving 235 pregnant women, data was gathered using the Bangla Edinburgh Postnatal Depression Screening Scale. The findings revealed that 56% of the participants experienced antenatal depression. This research offers valuable insights into the prevalence of antenatal depression and the social factors that impact mental health outcomes among pregnant women in rural Bangladesh.

According to Rachita et al., (2023), the study conducted involved a prospective cross-sectional investigation into the prevalence and risk factors for depression and anxiety among women in the last trimester of their pregnancy in Targu-Mures. The research included 215 pregnant women, and data was collected using the Hospital Anxiety and Depression Scale (HADS A), Edinburgh Postnatal Depression Scale (EPDS), and the Hamilton scale. The findings indicated that age and living area were identified as the most significant predictors of mental health during pregnancy, with the odds ratio for this association being 0.904 (95% CI: 0.826-0.991; $p = 0.029$). In terms of anxiety, 88.37% of participants fell within the clinical range, while 11.63% were categorized in the non-clinical range. Furthermore, the study identified that women living in urban areas were more likely to experience moderate depression ($p = 0.032$). This study contributes significantly to the understanding of depression and anxiety among pregnant women in Targu-Mures, highlighting the importance of age and living area as predictors of mental health.

III. SCOPE OF THE STUDY

Understanding the mother's mental health status is essential for ensuring their overall well-being during the pregnancy period. Anxiety and Depression can significantly impact the emotional state and quality of life of expectant mothers. Maternal mental health has been linked to fetal development with studies indicating potential links between maternal stress, anxiety, and depression and adverse outcomes in infants. Investigating these links can provide insights into how maternal mental health may influence fetal development.

Early Detection of Anxiety and Depression during the antenatal period allows timely intervention and support. It can help healthcare professionals implement appropriate strategies and interventions to mitigate these mental illness conditions for both the mother and the developing fetus. Improved Antenatal Services Integrating mental health assessments into routine antenatal care can enhance the comprehensiveness of healthcare services.

IV. RESEARCH METHODOLOGY

Research methodology is a way to resolve the research problem in a systematic approach. It deals with research design, approach, data collection technique, and the statistical methods used for data analysis.

Research design:

A quantitative research approach and descriptive research design was used.

Population and study samples:

The study population consists of all pregnant women who receive antenatal care, the target population was antenatal mothers in their second and third trimesters of pregnancy and the accessible population is 100 antenatal mothers in second and third trimesters who visited Antenatal OPD in Thiruvallur Government Medical College and Hospital. The samples were selected by using a non-probability purposive sampling technique. The current high-risk pregnancies are excluded from this study.

Data collection:

Based on the research problem and objectives of the study, the researcher collected the data from 11.12.2023 to 10.01.2024, Official permission was obtained from the concerned authorities of Government Medical College and Hospital, Thiruvallur. According to the sampling technique and criteria, the Antenatal mothers were chosen. Before distributing the questionnaire, each sample provided their informed consent. The study's goal was made clear, and confidentiality was upheld. The investigator collected the data by self-administered questionnaire regarding Anxiety and Depression among antenatal mothers. Using the Perinatal Anxiety Screening Scale and Edinburgh postnatal depression scale to assess anxiety and depression among antenatal mothers. The investigator collected data using the self-administered Perinatal Anxiety Screening Scale (PASS) and Edinburg Postnatal Depression Scale (EPDS) to assess anxiety and depression among antenatal mothers. Along with this demographic data was also collected. Each participant took 10 to 15 minutes to complete the questionnaire.

Description of the tool:

Part A – Demographic variables: Demographic data consisting of Age, educational status, occupation, type of family, family monthly income, religion, area of living, age at marriage, age at menarche, trimester, gravida, obstetrical history, life stressors, habits of a spouse, the period between previous pregnancy, contraception method used for spacing the child and nature of conception. The data was collected during this period and samples submitted their responses on the same day.

Part B-Perinatal Anxiety Screening scale: The tool is a standardized, validated, and reliable self-report questionnaire consisting of 31 items, specifically created to identify problematic anxiety, among pregnant women during the antenatal period. This scale assesses four categories of anxiety such as Acute anxiety, General worry and specific fear, Perfectionism, control, and trauma, and social anxiety

Part C- Edinburgh postnatal depression Scale Cox et al 1987: The Edinburgh postnatal depression scale consists of 10 questions and serves as an effective and convenient tool for identifying perinatal depression. The Edinburgh Postnatal Depression Scale (EPDS) is a well-established screening tool primarily designed to assess postnatal depression in mothers. However, its utility has been extended to include the assessment of antenatal depression as well., the EPDS is a self-report questionnaire comprising 10 items that inquire about the emotional well-being of pregnant individuals. Its simplicity and effectiveness make it a valuable tool for identifying symptoms of depression.

V. RESULT AND DISCUSSION

The analysis is the process of putting together and summing up the data to answer the research question. This chapter looks at the information gathered from 100 Antenatal mothers to find out how much they have anxiety and depression during pregnancy.

The information was organized, tabulated, and analyzed by the goals. Data analysis starts with a description of the study's data, which is numerical and includes certain concepts. Inferential statistics was

used to determine the link, while descriptive statistics allowed the researcher to organize the data and assess the quantum of information.

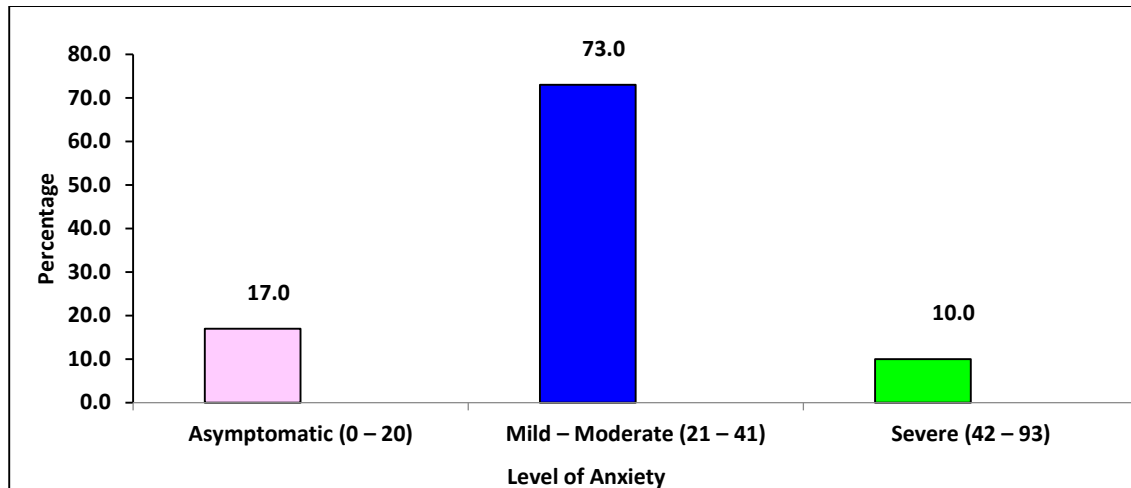


Fig 1: Frequency and percentage distribution of level of anxiety among antenatal mothers.

Fig 1, shows that 73(73%) had mild to moderate anxiety, 17(17%) were asymptomatic and 10(10%) had severe anxiety among antenatal mothers.

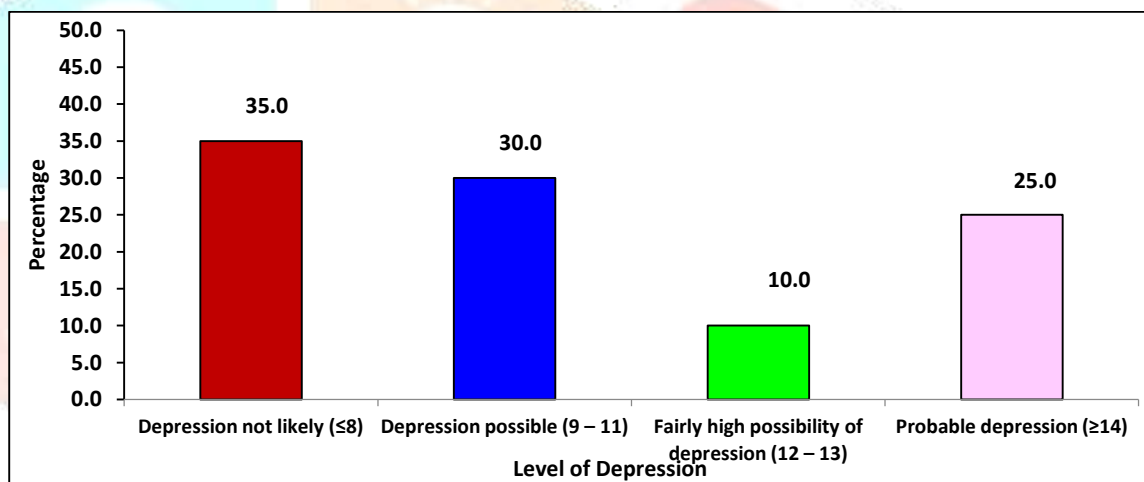


Fig 2: Frequency and percentage distribution of level of depression among antenatal mothers.

Fig 2, shows that 35(35%) had likely not had depression, 30(30%) had possible depression, 25(25%) had probable depression and 10(10%) had fairly high possibility of depression.

Variables	Mean	S. D	Karl Pearson’s Correlation “r” value
Anxiety	27.83	9.19	r = 0.708
Depression	10.39	4.47	p=0.0001, S***

***p<0.001, S-

Significant

Table 1: Correlation between anxiety and depression among antenatal mothers.

Table 1 shows that the mean score for anxiety was 27.83 ± 9.19 and the mean score for depression was 10.39 ± 4.47 . The calculated Karl Pearson's Correlation coefficient of $r = 0.708$ indicates a significant positive correlation between anxiety and depression among antenatal mothers, with statistical significance at $p < 0.001$. This means anxiety levels rise or fall among these mothers, and their levels of depression also increase or decrease accordingly.

The study findings showed that the demographic variables in anxiety, the demographic variable life stressors ($\chi^2 = 31.370$, $p = 0.0001$) had a statistically significant association with the level of anxiety among antenatal mothers at a significant level of $p < 0.001$. Age ($\chi^2 = 14.609$, $p = 0.006$), educational status ($\chi^2 = 21.234$, $p = 0.007$), and previous obstetrical history ($\chi^2 = 21.822$, $p = 0.005$) had a statistically significant association with the level of anxiety among antenatal mothers at $p < 0.01$ level. The period between the previous pregnancy and the current pregnancy ($\chi^2 = 12.917$, $p = 0.044$) had a statistically significant association with the level of anxiety among antenatal mothers at $p < 0.05$ level. The other demographic variables did not show a statistically significant association with the level of anxiety among antenatal mothers at a significance level of $p < 0.05$.

The study findings showed that the demographic variables in depression, occupation ($\chi^2 = 28.100$, $p = 0.005$), had a statistically significant association with the level of depression among antenatal mothers at $p < 0.01$ level. Trimester of pregnancy ($\chi^2 = 8.180$, $p = 0.042$) and life stressors ($\chi^2 = 21.828$, $p = 0.039$) had a statistically significant association with the level of depression among antenatal mothers at $p < 0.05$ level. The other demographic variables did not show a statistically significant association with the level of depression among antenatal mothers at a significance level of $p < 0.05$.

The present study showed that among the 61(61%) were aged between 21-and 25 years, 38(38%) were graduates, 86(86%) were housewives, 62(62%) belonged to joint families, 52(52%) had family income of below 10,000 per month, 85(85%) were Hindus, 76(76%) were living in a rural area, 82(82%) were in the aged range of 21-25 years at the time of marriage, 60(60%) were aged between 13 – 15 years at the time attaining menarche, 51(51%) were in second trimester (14 to 28 weeks), 67(67%) were multi gravida, 6(6%) had abortion as previous obstetrical history, 9(9%) had the pressure for a male child, 8(8%) of spouses had the habit of alcoholism, 24(24%) had the period of 1 – 2 years between the previous pregnancy and the current pregnancy, 41(41%) had used Intra uterine device (cu T) for spacing the child and 51(51%) had planned pregnancy.

The current study showed that 73(73%) had mild to moderate anxiety, 17(17%) were asymptomatic and 10(10%) had severe anxiety among antenatal mothers. The results were corroborated by a study conducted by Sapkota et al., (2019) concerning perinatal anxiety among pregnant mothers attending the antenatal OPD at Paropaker Maternity Hospital. Their study revealed that 138 individuals (40.9%) exhibited minimal anxiety levels, 142 (42.2%) displayed mild to moderate anxiety levels, and 57 (16.9%) experienced severe anxiety levels.

Regarding depression 35(35%) had likely not had depression, 30(30%) had possible depression, 25(25%) had probable depression and 10(10%) had fairly high possibility of depression. The research findings are reinforced by a study undertaken by Sabir et al. (2019) on the occurrence of antenatal depression among women undergoing ANC services in the third trimester in a private tertiary care institute in Lahore. Their study revealed a depression prevalence of 40.89% ($n = 184$). Specifically, 135 individuals (30.4%) were found to have mild depression, 39 (8.67%) exhibited moderate-level depression, and 8 (1.78%) experienced severe depression.

The mean score of anxiety was 27.83 ± 9.19 and the mean score of depression was 10.39 ± 4.47 . The calculated Karl Pearson's Correlation coefficient of $r = 0.708$ indicates a positive correlation between anxiety and depression among antenatal mothers, which was statistically significant at the level of $p < 0.001$. The results were corroborated by Adina et al. (2022), in their study on antenatal depression and anxiety during the late trimesters in Kenya. Among the 64 women diagnosed with depression, only 8 (12.5%) also experienced anxiety. Conversely, among the 26 women with anxiety, 8 (30.8%) exhibited symptoms of depression. Approximately 30% (118 participants) showed concurrent subclinical symptoms of both depression and

anxiety. In general, the Pearson correlation analysis revealed a moderate correlation between depressive and anxiety symptoms, with a coefficient of $r(393) = 0.49$, which was statistically significant at the level of $p < .01$.

IV. CONCLUSION

The study provides valuable insights into the prevalence and correlations of anxiety and depression among pregnant women, and it reveals a positive correlation between anxiety and depression among pregnant women. Emphasizing improved antenatal care services in addressing these mental health challenges effectively. The implications of these findings are profound for healthcare professionals and policymakers involved in antenatal care. They highlight the importance of integrating routine mental health screenings into prenatal care services to detect and address anxiety and depression early on.

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