Original Article

Depression in Antenatal Period

Depression among Mothers in Antenatal Period and its Causes; a Study Conducted on Primigravida Mothers

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ABSTRACT

Objective: To determine frequency of antenatal depression among primigravida mothers in antenatal period and causes of this depression.

Study Design: Observational / cross sectional study

Place and Duration of Study: This study was conducted at the M. Islam Teaching Hospital Gujranwala, a tertiary care hospital from January 2019 to June 2019.

Materials and Methods: We studied total 400 cases. An inclusion and exclusion criteria was designed for including patients in the study. Primigravida patients reported in Gyne & Obs OPD of study institution during study period, mothers having signs and symptoms of depression in antenatal period and depression diagnosed by psychiatrist as well having no co-morbidity were included in this study. Those mothers having any other co-morbidity as a cause of depression, conceiving second or third time were not included in the study. Patients for depression were evaluated on the basis of ICD-10 symptom checklist. SPSS version 16 was used to analyze data. Percentage, frequencies, means and P-value were calculated. Graphs and tables were used to express results. Written consent was obtained from all cases in the study group and permission was taken from ethical committee of the study institution as well.

Results: Four hundred 400 primigravida mothers were included in this study. Out of them 41.2% were diagnosed for depression including 49.7% mothers having mild, 35.2% with moderate and 15.2% having severe depression. Age range of cases was 15-40 years with mean age 24.5±5 year. Causes of depression among cases in study group were evaluated as low socioeconomic status in 54.5% mothers, lack of social support from husband in 18.8%, due to physical stress of pregnancy in 6.7%, unintended pregnancy in 6.1%, domestic violence in 9.1%, previous history of psychiatric illness and smoking was found as a cause of depression in 1.8% mothers. Single causative factor of depression was found in 69.7% and more than one causative factor were found in 30.3% cases. Educational status was also an important factor determining rate of depression among mothers. Out of 165 cases having depression, 34.5% were educated and 65.5% were uneducated mothers.

Conclusion: Depression is much common among primary gravida mothers and most common causes are low socioeconomic status, illiteracy, no social support from partner and domestic violence. It is more common in young mothers as compared to mature aged mothers.

Key Words: Depression, Antenatal period, primigravida mothers, psychological stress

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INTRODUCTION

Depression among mothers in prenatal period may cause negative outcomes and even developmental disorders in infants. Most common cause of depression among mothers is hormonal imbalance.[1,2]

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Period of parenthood is naturally very stressful for mothers. After difficult experience in birth one out of four mothers suffers from depression. Demographic factors are also very important in determining depression among mothers such as maternal age and body mass index which causes stressful delivery which often leads to cesarean section and causing increased mental stress and depression.[3,4] Other factors include any disease already present, tiredness due to lack of rest during pregnancy, financial status, burden of job on working women, behavior of partner, family behavior and personal relationship status. Outcomes of maternal depression in pregnancy may lead to preterm birth, low birth weight, miscarriage and fetal growth retartdation. Depression can occur in any stage of pregnancy in first, second or third trimester. It can be prevented by medical or psychological therapy. Postpartum depression is more common. Severity of depression is different in various modes of delivery such as more in

cesarean section than spontaneous vaginal or vaginal assisted delivery.[5] In Asia 30.7% women suffer from depression in prenatal period and 63.3% in postnatal period. [6,7] In developed countries incidence of maternal depression is much low as compared to developing and underdeveloped countries because of availability of good health services and early detection of problem and immediate management, increased number of skilled health professionals and high literacy rate of female population which make them health conscious themselves. In Pakistan there is low literacy rate especially among female population which is a major factor determining depression. In our society mental depression is frequently neglected and is not diagnosed early until unless disease is advanced or negative outcomes appear but in that case as well it is frequently misdiagnosed in underdeveloped areas. High illiteracy rate, old wrong customs, male dominance society and limited approach of health professionals to the mothers in our society due to culture or misbelieves and lack of trust its incidence is increasing with the passage of time.

MATERIALS AND METHODS

This is a cross sectional study of observational type conducted in out-patient door of Gynecology and obstetrics of study institution. Study was started in January 2019 and completed after six months duration in June 2019. A performa was used in which all relevant data was documented such as age, residency, occupation or housewife, number of parity and gravida, ICD-10 symptoms checklist was used to diagnose the disease. Help of a consultant psychiatrist was also taken to diagnose depression among mothers reporting in OPD having pregnancy. An inclusion and exclusion criteria was formed according to which only those females were included which were primigravida, pregnancy confirmed by urine pregnancy test or level of blood B-HCG, having signs and symptoms of depression. Mothers who have been conceived before, having no symptom or sign of depression according to ICD-10 symptom checklist, having previous history of psychological issue or consulted with psychiatrist, taking antipsychotics, having gestational hypertension or gestational diabetes mellitus were not included in this study. Mothers diagnosed for antenatal depression were evaluated for contributing cause of depression. Proper history was taken from each patient in study group about partner support, socioeconomic status, and domestic violence and did she want pregnancy or having pressure of partner or family. Approval was taken from ethical committee of the study institution for conducting study. Informed consent was taken from all cases in the study group and privacy of data was made sure. All collected data was analyzed using SPSS software version 20. Frequency, means and percentages were calculated and results were presented in tabular and graphical form. Confidence interval was 95% and margin of error was 5%.

RESULTS

Total 400 primigravida mothers were included in this study falling on inclusion criteria. Out of them only 165(41.2%) were diagnosed for having antenatal depression. Age range of cases in study group was 15-38 years with mean age of 24.5±4 years. There were 55(33.3%) cases between 15-20 years age, 47(28.5%) between 21-25 years, 24(14.5%) between 26-30 years, 20(12.1%) between 31-35 years and 19(11.5%) having age above 35 years (Table-1).

Causative factors evaluated among 165 mothers out of 400 cases having depression include low socioeconomic status in 90(54.65%) cases, no social support from partner in 31(18.8%) cases, previous history of any psychological issue reported in 5(3%), unintended pregnancy was a cause of depression in 10(6.1%) cases, domestic violence in 15(9.1%) cases, physical stress in 11(6,7%) and smoking was reported in only 3(1.8%) cases as a contributory factor of antenatal depression. In 115(69.7%) cases single causative factor was found while in 50(30.3%) cases there were multiple factors causing depression (Table-2).

In our study uneducated mothers were more in proportion than educated mothers as educated were 57(34.5%) and uneducated were 108(65.5%) (Figure-1).

Table No.1: Age distribution among cases in study group (n=400)

Age of patients (Years)	Number of patients (n=400)	Percentage	Patients having Depression (N=165)	Percentage
15-20	72	18%	55	33.3%
21-25	95	23.7%	47	28.5%
26-30	134	33.5%	24	14.5%
31-35	60	15%	20	12.1%
Above 35	39	9.7%	19	11.5%

Table No.2: Causative factors of antenatal depression among mothers in study group (n=165)

Causative factors of depression	**Frequency**	**Percentage**
Low socioeconomic status	90	54.5%
No social support from partner	31	18.8%
Past history of psychiatric issue	5	3%
Unintended pregnancy	10	6.1%
Domestic Violence	15	9.1%
Physical stress	11	6.7%
Smoking	3	1.8%
Total	**165**	**100%**

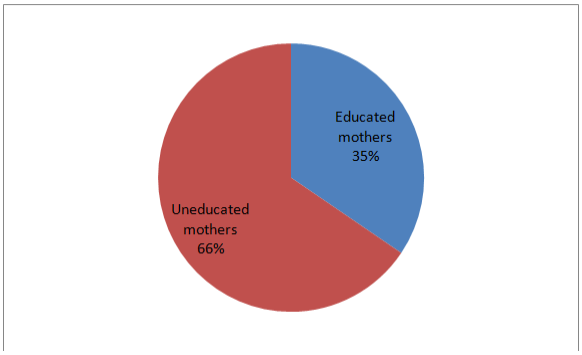

Figure- No.1: Frequency of educated and non-educated mothers among females having depression in study group (n=165)

DISCUSSION

Hormonal imbalance in pregnancy and physiological stress and many other personal factors may cause depression among mothers which can lead to harmful outcomes in mother and especially in infants in ther form of low birth weight, preterm delivery and congenital abnormalities etc. Psychological depression in pregnancy can lead to abortion.[8,9] Many studies reported that low socioeconomic status causes depression and poor fetal outcomes in poor societies. In Pakistan many studies have reported correlation of maternal depression and retarded fetal growth.[10,11] Developed countries have made proper system in health departments to detect this problem early and manage promptly to ensure safe mother and child.[12] Antenatal depression causes morbidities among mothers even after delivery of child.[13] A study reported that chances of antenatal depression is more in young mothers mostly around 16 years of age as compared to others with increased age.[14] Another study conducted on pregnant mothers above 18 years age concluded rate of depression 39% and out of them 60% were having low socioeconomic status.[15] There are many other factors as well causing depression such as most important one is non cooperative partner and lack of socio economical support from husband. A study conducted on young mothers having age 15-18 years concluded that cause of depression among 20.4% depressed mothers lack of support from partner and in 23% females there was history of previous psychiatric issue.[16] Early detection of problem and quick management can avoid preterm birth and low birth weight of newborns. It was seen that females from poor socioeconomic status areas were more prone to gain antenatal depression once they are exposed to it due to insufficient diet and unsafe environment around them.[17]There are many ways by which depression causes poor birth outcomes such as release of stress hormones cortisol, epinephrine and nor-epinephrin due to abnormal stimulation of hypothalamic pituitary adrenocortical axis. These changes cause decreased oxygen perfusion of placenta which leads to preterm birth and underweight baby.[18,19] Lack of proper healthcare facilities and difficult to avail them in remote areas often cause these symptoms neglected.[20] Pregnancy is a suitable period of time in which depression can be diagnosed in women having pre existing signs and symptoms. In Pakistan religious myths and social misbelieves enhance anxiety among mothers. Education status is a very important factor determining depression among mothers. In our study 41.2% mothers were having depression and these results are comparable to the study conducted by Kim HG et al who reported 30.7% women having depression.[21]

CONCLUSION

In our study depression was present in 41.2% mothers with most common cause was low socioeconomic status and no social support from partner. Majority of mothers with depression were below 20 years of age. Illiteracy was a major factor causing depression among mothers contributing 65.5% in our study. Early detection of problem and immediate management can reduce fetal complications.

Author's Contribution:

Concept & Design of Study:	Sabahat Khan
Drafting:	Wajiha Mehwish
Data Analysis:	Nousheen Ghaffar
Revisiting Critically:	Sabahat Khan
Final Approval of version:	Sabahat Khan

Conflict of Interest: The study has no conflict of interest to declare by any author.

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