Pregnant Women Presenting to Psychiatric Emergency Services: A Retrospective Chart Review from India

Manisha Murugesan[1], Sundarnag Ganjekar[2], Harish Thippeswamy[2], Geetha Desai[2] and Prabha S Chandra[2]

ABSTRACT

Background: Managing psychiatric emergencies during pregnancy is often challenging, as the safety of both the mother and the unborn fetus needs to be considered. This study aimed to examine the nature of psychiatric emergencies in pregnancy, their management, and clinical outcomes in women presenting to a psychiatry emergency room (ER).

Methods: Charts of perinatal women consulting psychiatry ER between January 2016 and June 2021 were reviewed for the nature of the psychiatric emergency, pregnancy details, psychiatric symptoms, sociodemographic information, medical comorbidities, clinical diagnosis, and care plan.

Results: Among 286 perinatal women who attended psychiatry ER, 57 (19.9%) patients were pregnant. Over half (n = 30, 52.6%) women were multiparous and in their second trimester (n = 29, 50.9%). Bipolar disorder (n = 22, 38.6%) was the most common diagnosis. Agitation/aggression (n = 34, 59.6%) was the most common reason for visiting ER, with risk of self-harm (n = 14, 24.6%) and risk of harm to the fetus (n = 7, 12.3%) being other reasons. Emergency psychotropic medications were used in 32 (56.1%) women, with the use of haloperidol in combination with promethazine (n = 12, 37.5%) or lorazepam (n = 8, 25%) being the most common.

Conclusion: One-fifth of women in the perinatal period presenting to the ER were pregnant. Agitation and aggression were the most common reasons. Parenteral medications were commonly used, and more than a fifth required inpatient care, emphasizing the seriousness of risk.

Keywords: Aggression, agitation, catatonia, pregnancy, pregnancy outcome, psychiatric emergency, psychotropics

Key Message:

1. Psychiatric emergencies during pregnancy are challenging situations as the safety of the mother and the fetus is at stake.
2. Aggression/agitation and risk of harm to self are the most common reasons for visiting the emergency room during pregnancy.
3. Most pregnant women visiting the emergency room require inpatient care for continued management of behavioral problems.

Psychiatric emergencies are clinical circumstances in which individuals with mental health disorders pose a serious risk to themselves or others. These individuals will likely be brought to the emergency room (ER) or acute inpatient psychiatric care settings for evaluation and management. Psychiatric emergencies during pregnancy can pose unique challenges as there are risks both to the mother and the unborn child. The most common psychiatric emergencies reported during pregnancy include acute agitation and suicidality.[1] Catatonia is also a clinically challenging presentation during pregnancy.[2] Due to the risks involved, safe, quick, and effective management with due diligence is vital.[3]

Severe mental illnesses such as major depressive disorders can have their onset for the first-time during pregnancy.[4]

[1]Midlands Partnership Foundation Trust Shropshire, UK. [2]Dept. of Psychiatry, National Institute of Mental Health and Neuro Sciences (NIMHANS), Hosur Road, Bengaluru, Karnataka, India.

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Address for correspondence: Sundarnag Ganjekar, Dept. of Psychiatry, National Institute of Mental Health and Neuro Sciences (NIMHANS), Hosur Road, Bengaluru, Karnataka 560029, India.
E-mail: sundarnag@nimhans.ac.in

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One in thirteen pregnant women can experience a new onset major depressive episode.[5] Severe depression, if undetected and untreated in pregnancy, can lead to psychosis, catatonia, or suicide.[3] Approximately 25–30% of women with bipolar disorder are known to experience symptomatic mood episodes during pregnancy.[6,7] Discontinuation of antipsychotics has been associated with a relapse of schizophrenia during pregnancy.[8–10]

Acute agitation during pregnancy could be a sign of new-onset illness or an exacerbation of pre-existing mental illnesses such as mania or psychosis. Delirium of obstetric etiology, such as eclampsia, hyperthyroidism, substance use, drug intoxication, or withdrawal, may also present with acute agitation.[1] In a retrospective review of the psychiatric emergency visit of 80 pregnant women, aggression manifested as a verbal threat or physical assault, severe anxiety, restlessness, disturbing auditory hallucinations, or paranoia.[11]

Suicidal behavior includes suicidal ideation, planning for suicide, suicide attempts, and committing an act of suicide.[12] Worldwide, suicidal ideation during pregnancy varies between 2.73% to 18%.[13–20] In India, the prevalence of suicidality was 7.6%, suicidal plans 2.4, and suicide attempts 1.7% in a community sample of pregnant urban women during early pregnancy (<20 weeks of gestation).[21] The presence of major depression, anxiety, sleep disturbances, past suicide attempts, poverty, lower education status, intimate partner violence, poor social support, food insecurity, past child abuse, past poor obstetric history, multiparity, past induced abortion, and exposure to tobacco or human immunodeficiency virus is known to increase the risk for perinatal suicidality.[22] Catatonia during pregnancy can be a psychiatric emergency as it can lead to dehydration, nutritional deficiencies (in both mother and fetus), thrombosis, and skin ulceration. There is a paucity of research in the area of catatonia during pregnancy. Among thirteen reported cases of catatonia during pregnancy, nine received electroconvulsive therapy (ECT) along with psychotropic medications.[23]

Treatment of mental illnesses during pregnancy is challenging as there is insufficient safety data for several medications, especially parenteral psychotropic medication. Perinatal psychopharmacology guidelines[24–26] do provide recommendations, but they are based on the general safety data of psychotropic use among nonpregnant women. Data on the treatment of psychiatric emergencies during pregnancy is limited and focuses on maternal treatment, and reports of outcomes are not available. This study aimed at 1) describing the clinical aspects of psychiatric emergencies during pregnancy and 2) describing the treatment and clinical outcomes of the ER consultation.

Methodology

Study Procedure

The study was a retrospective chart review of perinatal women attending emergency psychiatry services from Jan 2016 to June 2021. The Institute Ethics Committee approved the study. All pregnant women attending emergency psychiatry services at a tertiary neuropsychiatry center, which has specialized perinatal psychiatry services, were included in the study, and the Strengthening the Reporting of Observational studies in Epidemiology (STROBE) cross-sectional reporting guidelines.[27] were used to report the study.

Pregnant women and postpartum mothers with mental illness undergo detailed evaluation under Perinatal Psychiatry Services at outpatient, inpatient, and emergency services by a qualified psychiatrist and a postdoctoral fellow in women's mental health. All perinatal women receive a clinical diagnosis with a detailed treatment plan in discussion with the qualified consultant perinatal psychiatrist in the team. The details documented during ER evaluation include the nature of the psychiatric emergency, pregnancy details, psychiatric symptoms, sociodemographic information, details on medical comorbidities, clinical diagnosis, and care plan. Patients can stay in the ER for 48 hours, during which clinical risk (risk to self, risk to others) assessments are carried out to decide on admission to the ward or discharge from the ER. Women attending the ER are subsequently admitted to a Mother-Baby inpatient unit or followed up in our hospital's Perinatal Psychiatry Outpatient Services.

Data Analysis

Data on all the variables of interest was extracted in a Data Extraction Form, and the variables were coded and entered into Statistical Package for Social Sciences (SPSS) 28.0.[28] Frequencies, percentages, and mean were used to compute the variables.

Results

Among the 286 perinatal women who attended emergency psychiatric services during the study period, 57 (19.9%) were pregnant and presented with acute psychiatric manifestations. The mean age of the pregnant women was 26.2 ± 3.82 years, and the average years of formal education was 10 ± 4.75. There was equal representation of pregnant women from rural (n = 19), semi-urban (n = 20), and urban (n = 18) populations.

More than half (n = 30, 52.6%) of the pregnant women were multiparous and presented to the psychiatric emergency in the second trimester (n = 29, 50.9%), followed by the first (n = 19, 33.3%), and third trimester (n = 9, 15.8%). Prior history of psychiatric illness was reported in 38 (66.7%) pregnant women, and new onset of illness during pregnancy in 19 (33.3%). Of the 38 women with a prior history, 17 (44.7%) had past perinatal episodes, and 9/38 (23.7%) had relapsed while on medication.

Most (n = 36, 63.1%) of the women had unplanned pregnancies, while only 41(71.9%) had regular antenatal checkups. Twenty-seven women (47.4%) reported a positive attitude toward the fetus, 21 (36.8%) were neutral or indifferent, and 9 (15.8%) showed a negative attitude.

The common medical comorbidities noted were anemia (n = 23, 40.3%), hypothyroidism (n = 12, 21.1%), gestational diabetes mellites (n = 7, 12.3%), obesity (n = 4, 7%), and preeclampsia (n = 1, 1.8%).

Agitation and aggression (n = 34, 59.6%) were the commonest reasons for emergency psychiatry consultation, followed by risk of harm to self (n = 14, 24.6%) and risk of harm to the fetus (n = 7, 12.3%). Catatonia was noted in three pregnant women. Poor self-care and oral intake were identified in two women, and more than two symptoms were noted in 12 pregnant women.

Of the 14 women who reported self-harm, four had attempted suicide during the current pregnancy.

Twenty-two (38.6%) mothers had International Classification of Diseases (ICD)-10 diagnosis of bipolar affective disorder [mania (n = 16, 28%), depression (n = 4, 7%) mixed (n = 2, 3.5%)], thirteen (22.8%) had nonaffective psychosis, eleven (19.2%) had recurrent depression with the current episode being sever, and ten (17.5%) had acute and transient psychotic disorder. Organic mood disorder was noted in one pregnant woman.

Emergency psychotropic medications were used in 32 (56.1%) pregnant women. **Table 1** shows psychotropic drugs used to treat psychiatric manifestations in the ER. After the acute management in the ER, pregnant women were prescribed psychotropic medication for the management of the primary condition. **Table 2** shows the psychotropic drugs prescribed to pregnant women postemergency treatment. None of the pregnant women received physical restraints. Depending on the clinical indications, verbal de-escalation, support, and contact with social services are provided to pregnant women.

ECT was used in 11 (19.3%) pregnant women, with an average number of sessions being 6 (standard deviation [SD]: 1.48). Among women who received ECT, nine were in the second trimester, and two were in the early third trimester. Indications for ECT were severe agitation (7/34), suicidal risk (4/10), and catatonia (2/3). No immediate adverse events were noted either to the pregnant woman or fetus during the ECT procedure. Depending on clinical indications, initiation of ECT reduced the exposure to high doses of parenteral psychotropics in pregnant women.

Apart from acute management, pregnant women were prescribed psychotropic medications as a maintenance dose. **Table 2** shows psychotropic drugs prescribed to pregnant women.

TABLE 1.

Psychotropic Drugs Used to Treat Psychiatric Manifestations in the ER.

Emergency Drug Used (N=32)	*n* (%)	Maximum Dose Received
Inj. Haloperidol 5 mg (intravenous) plus Inj. Promethazine 25 mg (intramuscular)	12 (37.5)	6 doses of injection (Haloperidol 30 mg Promethazine 150mg)
Inj. Haloperidol 5 mg (intravenous) plus Inj. Lorazepam 4 mg (intravenous)	8 (25)	8 doses of injection (haloperidol 40 mg lorazepam 32 mg)
Inj. Lorazepam 2mg	7 (21.8)	6 doses of injection (lorazepam 12 mg)
Tab. Chlorpromazine	5 (15.6)	Minimum dose of 50 mg, and maximum dose of 300mg

TABLE 2.

Psychotropic Drugs Prescribed to Pregnant Women Postemergency Treatment.

Oral Psychotropic Drug	*n* (%)	Maximum Dose/Day
Antipsychotic		
Olanzapine	23 (40.4)	20 mg
Risperidone	21 (36.8)	8 mg
Quetiapine	6 (10.5)	400 mg
Aripiprazole	3 (5.3)	30 mg
Antidepressant		
Sertraline	6 (10.5)	150 mg
Fluoxetine	2 (3.5)	40 mg
Escitalopram	2 (3.5)	20 mg
Venlafaxine	1 (1.8)	150 mg
Benzodiazepine		
Clonazepam	13 (22.8)	1.5 mg
Lorazepam	16 (28.07)	6 mg
Others		
Pregabalin	2 (3.5)	150 mg
Two or more medications	6 (10.5)	

Outcome of ER Consultation

Out of 57 pregnant women who visited the ER, 48 (84.2%) required inpatient care under perinatal psychiatry services, and 9 (15.8%) were discharged from the ER with a care plan. Among those pregnant women who needed inpatient care, the mean duration of hospitalization was 21.54 (SD: 10.14) days.

Discussion

This retrospective review of clinical records of pregnant women visiting emergency psychiatry services found that aggression/agitation was the commonest reason for presentation, with bipolar disorder as the most common diagnosis. A majority of women had a history of mental illness. Injection haloperidol and lorazepam were the commonly used psychotropics to control acute symptoms. ECT was used for quicker resolution of agitation, control of suicidal risk, and catatonia without any adverse events during the procedure.

While there are no prospective observational studies on pregnant women visiting emergency psychiatric services, studies using retrospective data reveal the reasons for consultation. A study done at the University Hospital in Philadelphia reported that 80 pregnant women visited psychiatry emergency, and the reasons for consultation were "aggression, severe anxiety, restlessness or psychotic symptoms, such as auditory hallucinations or paranoia."[11] In addition to the agitation/aggressive behavior most commonly noted in our study, pregnant women were brought to psychiatry emergency services for reasons such as the risk of self-harm, attempts of self-harm, behaviors leading to fetal risk, and poor self-care/ oral intake.

Regarding the clinical diagnosis of psychiatric conditions with which pregnant women present in emergency settings, there is limited information available in the literature. Most of the reviews on behavioral emergencies during pregnancy mention that major depressive episodes can appear for the first time during pregnancy, and untreated depression can lead to psychosis, catatonia, and suicide.[1,3,29] A prospective examination of 89 pregnant women with bipolar disorder in remission before pregnancy found that the risk

of recurrences of new episodes during pregnancy was highest in the first trimester, followed by the second and third trimesters, respectively.[30] In this study, more pregnant women presented to the ER during the second trimester. It is possible that pregnant women in our study discontinued their medication as soon as they detected their pregnancy (early first trimester), and the relapse with worsening of the clinical condition might have appeared in the second trimester, leading to visits to psychiatry emergency services. Though the risk of recurrence of bipolar disorder increases 2.3 times if medications were discontinued, women experienced episodes while on medications during pregnancy.[30] As noted in the clinical charts, a small number (9/38) of pregnant women in our sample had relapsed while on medications. This may be related to women decreasing the medication dose (rather than stopping) or decreasing serum levels on the same dose. A decrease in serum levels of several psychotropic medications during pregnancy has been reported and may cause relapses.[31,32]

Published literature on the management of pregnant women with acute psychiatric issues presenting to the ER is limited to textbook chapters,[33,34] expert opinion,[35] and clinical guidelines.[24–26] The retrospective study done by Ladavac et al. at University Hospital, Philadelphia, discusses the management of 31 psychiatrically ill pregnant women with 34 doses of antipsychotic medications. Ten and eight pregnant women required an antipsychotic (haloperidol) plus benzodiazepine combination and benzodiazepines alone, respectively. Out of 12 doses of haloperidol given, seven were administered intramuscularly. The majority of pregnant women require psychotropics in the form of concentrate, solution, or pills. Two pregnant women at four weeks of gestation required physical restraint because of behavior such as kicking, spitting, and verbally threatening the healthcare providers.[11] In our study, acute behavioral manifestations during pregnancy were most commonly managed with parenteral haloperidol, and the emergency psychiatry team was adherent to the available guidelines for the management of psychiatric conditions during pregnancy.[26,36]

Contrary to the previous study,[11] none of the pregnant women in our study received physical restraint. This could be because trained women nurses use effective de-escalation methods to calm the women. Physical restraint during pregnancy can be very dangerous, especially during the third trimester, as it can potentially lead to inferior vena cava compression.[37,38] The majority of pregnant women presenting to the ER required inpatient psychiatric care, emphasizing the need for continued acute psychiatric care management.

With limited data on emergency psychiatric manifestations among pregnant women, our study adds information on the type of emergencies, their management, and clinical outcomes in emergency care. The limitations include the retrospective nature of the information, small sample size, inability to control for confounders such as treatment adherence and antenatal care, and lack of information on pregnancy outcomes.

Conclusion

Psychiatric emergencies during pregnancy are challenging clinical situations for mental health professionals. Parenteral administration of antipsychotics such as haloperidol, benzodiazepines such as lorazepam, and oral psychotropic medications can control acute behavioral problems. ECT seems to be effective during pregnancy for agitation/aggression, suicidality, and catatonia, but it has to be done by teams that have specialized training. Evidence from prospective observational studies involving larger samples of pregnant women, close monitoring of fetal wellbeing, parturition data, and long-term follow-up of mothers and infants would guide better clinical decision-making.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

Declaration Regarding the Use of Generative AI

On behalf of all the authors, I, the corresponding author, assume full responsibility for the entire manuscript content, including the parts generated by the artificial intelligence (AI) tool.

Ethical Approval

Ethical approval was taken from Institutional Ethics Committee, National Institute of Mental Health and Neuro Sciences (NIMHANS), ethical approval No. NIMH/DO/BEH. Sc. Div./2021-22 dated 27.05.2021.

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ORCID iDs

Sundarnag Ganjekar https://orcid.org/0000-0003-1450-1191
Geetha Desai https://orcid.org/0000-0002-6903-1054

Note

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