Original Article

Psychiatric Morbidity, Cultural Factors, and Health-Seeking Behaviour in Perinatal Women: A Cross-Sectional Study from a Tertiary Care Centre of North India

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ABSTRACT

Background: Poor mental health of the mother affects her physical health and the neonate's health and development. Studies from Southern India place different estimates of perinatal mental ill-health. Cultural variables affect health-seeking behaviour and are thus important to study in perinatal women with psychiatric morbidity. **Methods:** A total of 281 perinatal women were screened on Edinburgh Postnatal Depression Scale (EPDS), Perinatal Anxiety Screening Scale (PASS) and Mini International Neuropsychiatric Interview version 6.0 (MINI), assisted with a clinical interview to identify psychiatric illnesses. The cultural formulation interview (CFI) of DSM-5 was applied on perinatal women having psychiatric illnesses and their caregivers. **Results:** A psychiatric diagnosis was present in 10.3% of perinatal women. Depression and anxiety disorders were seen in 7.12% and 1.41%, respectively. Marital discord ($P < 0.0001$), psychosocial stressors ($P < 0.0001$), and past history of psychiatric disorder ($P < 0.001$) were significantly higher in perinatal women with a current psychiatric diagnosis. On CFI work-related stress, the gender of the infant, low education and conflict across generations were identified as the negative aspects of the culture associated with psychiatric illness during and after pregnancy. Religion and social support were the major coping strategies, while stigma and financial problems were the major barriers to help-seeking. **Conclusion:** The high prevalence of psychiatric disorders and the strikingly low help-seeking are noteworthy. These findings can help in planning treatment and prevention programs for timely detection and intervention for perinatal psychiatric disorders.

Key words: *Culture, help-seeking, perinatal, psychiatric illness*
Key messages: *Though they have a high prevalence of psychiatric morbidity, help seeking is poor in perinatal women.*

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Mental ill-health has not really been a priority in the context of reproductive health and poses a global burden and disability.[1] The transition to motherhood involves major psychological and biological changes and makes pregnancy and postpartum period vulnerable to ill-health.[2-4] The perinatal period is identified as a risk factor for the occurrence or recurrence of psychiatric disorders in women.[5] According to DSM-5,[6] perinatal psychiatric disorders include conditions that occur during pregnancy and up to four weeks after delivery. Common mental health problems seen in the perinatal period include postpartum blues, depression, anxiety, and psychosis. Various studies[7-10] have identified factors associated with antenatal psychiatric morbidity. Past history of depression was found to be the strongest predictor of antenatal depressive symptoms,[7] along with unmarried status, polygamy, past history of stillbirth, and perceived lack of social support.[8] Other factors are psychosocial stress, domestic violence, chronic medical illness and young age of the mother[9] and quality of the marital relationship.[10] Risk factors for post-partum depression in a meta-analysis,[11] included depression and/or anxiety during pregnancy, stressful life events, low social support, past history of depression and poor marital relationship.[12,13]

Poor maternal mental health can cause delayed prenatal growth of the foetus, preterm delivery and low birth weight.[14-16] Sub-optimal mother-child interaction and bonding can cause an increased incidence of developmental disorders such as Attention Deficit Hyperactivity Disorder.[17-19]

Only a few studies are available on prevalence, risk factors, and obstacles to care. Data from India has mostly come from the southern part of the country, revealing wide range (11-23%) of perinatal mental morbidity, primarily depression.[20-23] Studies do not mention details about help-seeking behaviour and its cultural determinants but report significant number of antenatal depressed mothers remaining depressed 6 weeks or months postpartum. This indicates low help-seeking. Reasons for not seeking help included the belief that a 'good mother' should be able to cope on her own, stigma, guilt, and denial.[24] Complex and poorly understood cultural and regional variables can affect help-seeking.

The current work was planned to study psychiatric morbidity, its prevalence and cultural factors influencing illness understanding, help-seeking behaviour and barriers to care in perinatal women, thereby helping in planning and implementation of services for perinatal mental health issues.

METHODS

This was a cross-sectional study conducted from September 2014 to July 2015. The sample was drawn from women attending the antenatal and postnatal care services of the Department of Obstetrics and Gynaecology at a tertiary health care centre of North India by purposive sampling technique. For the purpose of this study, perinatal psychiatric disorders were defined as in DSM-5, i.e., "Psychiatric disorders occurring during pregnancy and/or up to four weeks after delivery". Participants fulfilled the following inclusion criteria: a) women currently pregnant or up to four weeks post-partum, b) Age >18 years, c) Willing to give written informed consent, and d) accompanied by a caregiver. For the purpose of the study, the caregiver was operationally defined as, "a family member who is living in the same household most of the time and shouldering the responsibility of the caring for the subject most of the time." Women were excluded if they reported the onset of the current psychiatric disorder prior to pregnancy or if they had any co-morbid medical illnesses requiring priority medical management. The Institutional Ethics Committee (IEC) approved the study.

Procedure and instruments

Written informed consent was taken, and a semi-structured proforma was used for collecting sociodemographic and clinical information, including menstrual, sexual and reproductive history and information on psychosocial stressors and marital discord. M.I.N.I. International Neuropsychiatric Interview, version 6.0.0 (MINI),[25] was applied to identify psychiatric illnesses. Edinburgh Postnatal Depression Scale (EPDS)[26] and the Perinatal Anxiety Screening Scale (PASS)[27] were applied on all the participants. The participant and a primary caregiver were interviewed using the Cultural Formulation Interview (CFI) of DSM-5.[6]All assessments were done by a single investigator, from the Department of Psychiatry, who was sufficiently trained for the purpose.

Edinburgh postnatal depression scale (EPDS)[26]
It is a 10-item questionnaire to identify postpartum depression. The EPDS can be used up to eight weeks postpartum and has been reliably applied for depression screening during pregnancy.[28] The cut-off scores vary in different cultures.[29] In Indian studies, the cut-off score used in the majority was 12.[20,21]

Perinatal anxiety screening scale[27]
It is a valid and reliable 31-item instrument to screen for problematic anxiety in antenatal and postpartum women, applied as a self-report assisted by the interviewer. The scale was translated into Hindi

(a formal translation and back-translation exercise was not done), and a mental health professional fluent in the Hindi language validated the translation.

Discussion of cultural formulation interview[6]
It was introduced with DSM-5. It includes 16 questions about the impact of culture on key aspects of an individual's clinical presentation and care, specifically, illness understanding, help-seeking behaviour, and barriers to care. The CFI can be used regardless of the cultural background of the individual or the clinician. Two sites in India participated in the validation of CFI, one in New Delhi at Post Graduate Institute of Medical Education and Research (PGIMER)-Dr Ram Manohar Lohia Hospital, and the other in Pune at King Edward Memorial (KEM) Hospital.[30]

Statistical analysis
Independent (unpaired) samples T-test and Chi-square/Fisher's exact test were used for group comparisons, for continuous and categorical variables, respectively. The sample size was calculated by the following formula $Z^2 P (1-p)/d^2$. In this case, Z = 1.96 standard normal variate (at 5% type 1 error, i.e., $P < 0.05$). The expected proportion in population based on previous studies[20-23] (*P*) was kept as 23%, and the absolute error or precision (d) was kept as 5%. The sample size calculated was 272, and we planned to recruit more than this figure for our study.

RESULTS

Socio-demographic and clinical characteristics of the sample
A total of 315 women were screened for the study, of whom 281 satisfied the inclusion criteria and were included in the study. The mean age of the sample was 25.9 ± 4.04 years, with the majority (54.8%) in the age group 18-25 years. The sample was largely urban (72.24%), married (99.29%), college graduates (34.87%), and housewives (94.25%), Hindu (80.07%), living in a joint family (58.36%), and with a monthly family income more than INR 10,000 (49.11%). Only a small percentage of women were illiterate (11.39%). Most of the women were antenatal (88.61%), mostly in the third trimester of pregnancy (45.2%). Nearly 60% of the women were multigravida. Complications during current pregnancy were present in 19.2%, the commonest being a post-dated pregnancy (3.56%). Concurrent medical disorders were present in 58.7%, the commonest being anaemia (52.3%). About 40% of women had a past history of complicated pregnancies, abortion being the commonest (11.74%).

Psychiatric assessment of study sample (*n* = 281)
Table 1 depicts the results of psychiatric assessment with MINI. In this sample, 10.3% of perinatal women had a current psychiatric diagnosis. The commonest diagnosis was Major Depressive Disorder, which was present in 7.12% (*n* = 20) women. Thus, 70% of the psychiatric morbidity in this sample was contributed by Major Depressive Disorder. Other disorders found in this sample included Anxiety Disorder Unspecified (1.41%), Brief Psychotic Disorder (0.71%), Bipolar Affective Disorder (0.36%), Obsessive Compulsive Disorder (0.36%), and Adjustment Disorder (0.36%). Past history of psychiatric illness was present in 3.56%, again predominantly depression (reported by 3.2%). Four women (1.41%) had a family history of psychiatric illness – two had a history of bipolar affective disorder in father, one had a history of depression in sister, and one had a history of psychosis in sister. EPDS and PASS were applied on the sample and none of the women without a psychiatric co-morbidity scored above the cut-off. Thus both EPDS and PASS, which are specifically designed to pick-up depression and anxiety in pregnancy and postpartum phase, respectively, reported similar findings as that by MINI [Table 2].

Comparison of the socio-demographic and clinical variable between the groups with and without Psychiatric Illness
60 women (21.35%) reported psychosocial stressors in their lives. Of them, 38 (13.51%) reported marital discord, 12 (4.27%) reported financial difficulties. The remaining 10 women reported other stressors, e.g., ill-health of the child, health issues in other family members, etc. Sociodemographic variables did not differ between women with and without current psychiatric morbidity. Among the clinical variables, psychosocial stressors ($P < 0.01$), marital discord ($P < 0.01$), and a past history of psychiatric illness ($P < 0.01$) were significantly more in perinatal women with psychiatric morbidity [Table 3].

Assessment of the study sample on CFI
Of the 29 women with a current psychiatric diagnosis, 2 had psychotic symptoms and could not be assessed

Table 1: Psychiatric assessment of study sample (*n*=281)

Variable	Observation [*n* (%)]
Presence of psychiatric diagnosis as per DSM-5	29 (10.32%)
Type of Psychiatric disorder	
Major Depression	20 (7.12)
Anxiety unspecified	04 (1.41)
Brief psychotic disorder	02 (0.71)
Bipolar affective disorder	01 (0.36)
Adjustment disorder	01 (0.36)
Obsessive compulsive disorder	01 (0.36)
Past h/o psychiatric disorder	10 (3.56)
Family h/o psychiatric disorder	04 (1.41)

on CFI. Thus, presented here are the results of CFI on 27 perinatal women with psychiatric morbidity. Tables 2 and 4 depict the distribution of thematic interpretations of participants' and caregivers' responses to questions in the CFI that explore illness understanding, help-seeking behaviour, and barriers to care.

Illness understanding in the CFI [Table 4] comprises of a cultural definition of the problem, cultural perception of the cause, context, and support, and the role of cultural identity. More than 85% of women used words/phrases descriptive of emotional/behavioural symptoms (low mood, reduced sleep, crying spells) to describe their problems. However, when it came to communicating their problems to others or what aspect of their problem troubled them the most, there was a slight shift in focus towards interpersonal stress, pregnancy-related worries, reduced ability to work, and physical health. Almost 25-30% of women gave responses consistent with these themes. Similar kind of responses were given by the caregivers too for the above questions.

When asked about their perceptions of the cause, the women gave mixed responses, the commonest being pregnancy/physical health (33.3%), interpersonal stress (29.6%), and psychological attribution (22.2%).

According to patients, their family/community members attributed the problem to pregnancy/physical illness (51.8%), psychological factors (40.7%) and interpersonal stress (11%). Rest other responses included witchcraft (14.8%) and destiny (7.4%). The

caregivers gave responses similar to the above, with slight emphasis on witchcraft.

When asked about the kind of support that makes their problem better, the majority of the women reported social support (70.3%), followed by spiritual support (25.9%) and faith healing (3.7%). Work-related stress was reported by the majority of women (77.7%) as the most important factor causing worsening of their symptoms. Other factors were family issues, financial difficulties and marital discord. Caregivers' responses on social support were the same, but they reported work-related stress and marital discord as almost equally responsible for worsening of the symptoms.

Women and their caregivers reported religion and ethical and cultural values received from their elders and society as the most important aspect of their culture and acknowledged education as an important aspect of their identity. When asked about the cultural factors that could have a bearing on their existing problem, various factors like social support, religion, moral values, cultural factors, marital discord, destiny, and low socio-economic status were reported by both the women and the caregivers. Other factors like intergenerational conflict, low education, the gender of the infant and poverty were identified as negative aspect of their culture responsible for causing concern or any other difficulty.

Help-seeking behaviour in CFI [Table 5] was explored by two sets of questions. The first set asked about past help-seeking and coping, while the second explored current help-seeking. Religion was the most common coping strategy reported by both the women (44.4%) and the caregivers (25.9%). Coping by self and by seeking social support were other prominent means of coping. Caregivers' responses laid more emphasis on self-coping and faith healing. Help-seeking in the past was majorly by non-medical means such as social support, prayer, and faith-healing. Medical help was

Table 2: Assessment of study sample on EPD and PASS

Assessment on EPDS/PASS	Psychiatric disorder	
	Present	Absent
No. of women scoring>12 (cut-off score)	20 (68.97%)	0
No. of women with scores≤12 (Subsyndromal)	07 (24.14%)	112 (44.44%)
No. of women scoring>26 (cut-off score)	01 (3.45)	00
No. of women with scores≤26 (Subsyndromal)	26 (89.66)	160 (63.49)

EPDS – Edinburgh Postnatal Depression Scale, PASS – Perinatal Anxiety Screening Scale

Table 3: Comparison of socio-demographic and clinical variables between thegroups with and without Psychiatric Illnesses

Variables	Psychiatric disorder		t/X^2
	Present (*n*=29)	Absent (*n*=252)	
Presence of psychosocial stressors	19 (65.52)	41 (16.27)	X^2=37.56
Marital discord	18 (62.07)	20 (7.94)	df=1
			P<0.0001
Financial	00	12	
Others	01	09	
Presence of Marital discord	18 (62)	20 (7.93)	X^2=65.18
			df=1
			P<0.0001
Family h/o psychiatric illness	02 (6.90)	02 (0.79)	0.054 (Fisher's Exact test)
Past h/o psychiatric illness	05 (17.24)	05 (1.98)	*P*=0.001 (Fisher's Exact test)

Table 4: Assessment of perinatal women with psychiatric morbidity (*n*=27), and their caregivers, on the CFI − Illness understanding

Theme	Investigators' thematic interpretations from participants responses	Perinatal women with psychiatric morbidity (*n*=27)	Caregivers (*n*=27)	Examples of patient and informants verbteims
Cultural definition of the problem				
What problem brings you here today?	Behavioral/emotionalsymptoms or acknowledgement of mental illness	23 (85.19%)	24 (88.89%)	"Mann udaasrahatahai" "Uljannhotihai"
	Interpersonal/social stress	04 (14.81%)	03 (11.11%)	"Sasural wale pareshankartehai"
How would you describe your problem to other people?	Behavioral/emotional symptoms or acknowledgement of mental illness	20 (74.07%)	18 (66.67%)	"Mann dukhirahatahai" "Dimagkamjorhai/dilkamjorhai"
	Interpersonal/social stress, Destiny, pregnancy	07 (25.93%)	09 ()	"Gharmeiladaijhagdahotahai"
What troubles you most about your problem?	Behavioral/emotionalsymptoms	17 (62.96%)	20 (74.07%)	
	Worries related to Pregnancy, reduced ability to work, Interpersonal stress, Physical Health	10 ()	07 ()	Neendnaiaati" "Rona aatahai" "Kaamnaikarpaate" "Pati se ladai ho gai hai"
Cultural perception of cause, context and support of the CFI				
Why do you think this is happening to you? What do you think are the causes of your [PROBLEM]?	Pregnancy/Physical illness	09 (33.33%)	09 (33.33%)	"Pregnancy"
	Interpersonal stress	08 (29.63%)	08 (29.63%)	"Shareer se kamjorhai"
	Psychological attribution/ Acknowledgement of psychiatric illness	06 (22.22%)	04 (14.81%)	"Kismatkharabhai" "Sasuralwalo se ladai k kaaran"
	Others: Destiny, "No idea", Witchcraft	04 (%)	06 (%)	
What do others in your family, your friends, or others in your community think is causing your [PROBLEM]?	Pregnancy/Physical illness	14 (51.85%)	07 (25.93%)	"Pregnancy"
	Psychological attribution	11 (40.74%)	00 (%)	"Shareer se kamjorhai" "Gharkiladaijagdekiwajah se"
	Others: Witchcraft, Destiny, Interpersonal stress	09 (%)	20 (%)	"Kisi ne kuchkaradiyahai" Answers were not mutually exclusive
Are there any kinds of support that make your [PROBLEM] better, such as support from family, friends, or others?	Social support	19 (70.37%)	20 (74.07%)	"Maykemeigharwalo se baatkarlena"
	Spiritual support	07 (25.93%)	06 (22.22%)	"Patikesaath"
	Faith-healing	01 (3.70%)	01 (3.70%)	"Bhagwan se prarthanakarna" "Jardwaifukwaikaraana
Are there any kinds of stresses that make your [PROBLEM] worse, such as difficulties with money, or family problems	Work-related stress	21 (77.78%)	10 (37.04%)	"Kaambahutjaadakarnapadtahai"
	Family issues, Financial difficulties, Marital discord, Pregnancy-related, Sarcasm from neighbours	12 (%)	17 (%)	"Paisekikammi" "Pati se ladai hone par" "Bacchekichintahona
Role of cultural identity				
For you, what are the most important aspects of your background or identity?	Religion, cultural values, society, education, stamina			Humaradharm" "Samaj" "Sanskriti" "Reetiriwaz"
Are there any aspects of your background or identity that make a difference to your [PROBLEM]?	Social support	O2 (7.41%)	02 (7.41%)	"Samaaj"
	Religion	09 (33.33)	07 (25.93%)	"Sanskriti" "Dharam"
	Culture, Moral values, Marital discord, Destiny, Low socioeconomic status	16	18	"Rudiwaadhi" "Paiseki kami" "Ladkihona
Are there any aspects of your background or identity that are causing other concerns or difficulties for you?	Inter-generational conflict	06 (22.22%)	07 (25.93%)	Saas bahu meianbanhona
	low education, Gender related issues, Culture or society related, poverty	21 (%)	20 (%)	Jyadapadelikhenahona Ladkihona Purushpradhansamaj Ladke kapaidha hone kichaha

CFI − Cultural formulation interview

reported by less than one-third of the patients and caregivers.

On questions about current help-seeking, counselling/ medication and social support were acknowledged as

Table 5: Assessment of perinatal women with psychiatric morbidity (*n*=27), and their caregivers, on the CFI — Help-seeking behavior and Barriers to Care

Theme	Investigators' thematic interpretations from participants responses	Perinatal women with psychiatric morbidity (*n*=27)	Caregivers (*n*=27)	Examples of patient and informants verbatims
Self copingand past help seeking				
What have you done on your own to cope with your [PROBLEM]?	Religion	12 (44.44%)	07 (25.93%)	"Bhagwan ka aasra"
	Social support, Self, Medical support, Delivery, Faith-healing	15 (%)	20 (%)	"Gharwalo ka sath" "Apne se koshishkarna" "Jardwanafukwana
In the past, what kinds of treatment, help, advice, or healing have you sought for your [PROBLEM]?	Socialsupport	08 (29.63%)	11 (40.74%)	Gharwalo ka sahaara"
	Faithhealing, Medical help, Prayers	19 (%)	16 (%)	"Pooja karna" "Dua taabeejkarana" "Dawaikarwana
Current help-seeking				
"What kinds of help do you think would be most useful to you at this time for your [PROBLEM]?"	Counselling/medication, Social support	17 (40.74%)	20 (44.44%)	Kisi kesamjhane se" "Dawaai se"
	Improvement in interpersonal relationship, Faith-healing, Delivery, Time, No idea	10 (14.81%)	07 (11.11%)	"Rishto kasudhar jane se" "Dua taabeej se" "Baccha ho jaanekebaad"
"Are there other kinds of help that your family, friends, or other people have suggested would be helpful for you now?"	Faith healing	09 (33.33%)	14 (51.85%)	Dua taabeej se"
	Medication/counselling	04 (14.81%)	00 (%)	"Kisi kesamjhane se" "Dawaai se"
	Social support, Religion, Delivery, Care, Marital related, Self, 2nd baby, Male child	14 (7.41%)	13 (%)	"Rishto k sudar jane se" "Bhagwankikripa se" "ladka ho jaanekebaad"
Have you been concerned about this and is there anything that we can do to provide you with the care you need?	Psychological/pharmacological help	24 (88.89%)	21 (77.78%)	"Dawaai"
	Social support, Nothing, Don't know, Understanding, Access to services	03 (3.70%)	06 (%)	"Baatcheetkejarariyesualhkarwa de" "Patanai" "Soojhbhooj"
Barriers to care				
Has anything prevented you from getting the help you need?	Stigma	08 (29.63%)	08 (29.63%)	"Logon ko patanachaljaye"
	Financial problems	07 (25.93%)	07 (25.93%)	"Hichkichahat"
	Work related, Health issues/Pregnancy, No factor, Interpersonal stress, Family commitments, Distance	12 (%)	10 (%)	"Paiseki kami" "Kaammeivyasth hone kiwajah se"

CFI — Cultural formulation interview

helpful by around 50% of the women and caregivers. Interestingly, the women and caregivers reported that they had been advised faith-healing and resolution of marital discord by others as remedial measures for the current symptoms.

Barriers to care were explored by a single question in CFI [Table 5]. Stigma (29.63%), and financial problems (25.93%) were the major barriers to seeking help in both the women and the caregivers. Other factors were busy work schedule, family commitments and poor accessibility of health care facilities.

DISCUSSION

Prevalence of psychiatric morbidity
The primary aim of the study was to detect the prevalence of psychiatric disorders in perinatal women. A meta-analysis of the point prevalence of non-psychotic common mental disorders in developing countries reported values of 15.6% during pregnancy and 19.8% postpartum.[31] In our study, 10.3% of perinatal women had a current psychiatric diagnosis. Among them, most (≈80%) had a diagnosis of major depressive disorder.

The literature reveals that after the postpartum blues, which is usually self-remitting, postpartum depression is the common psychiatric disorder in perinatal women.[32-34] The average prevalence rate of non-psychotic postpartum depression based on a meta-analysis of a large number of studies, is 13%.[11] Although individual studies and systematic reviews[35-41] have estimated different rates of perinatal depression, prevalence estimates are affected by the nature of the assessment method and the length of the postpartum period under evaluation.[11] The prevalence studies done in this area in our country[40] are mostly from the southern part. In our study, there is a 7.12% point prevalence of depressive episodes. Our findings revealed a greater number of women with antepartum depression, that is, out of 20 (7.12%) women with a

depressive episode, 19 were in antenatal period and only one woman had postpartum depression. This could be because antenatal women formed the majority (89%) of our sample.

A cohort study by Chandran *et al*. in 2002[22] in rural Tamil Nadu reported that, of the 71 women with depression, 38 (54%) had an antenatal onset, suggesting that antenatal depression is a predictor for postpartum depression. Similar findings were also observed in a study done in Goa in 2002.[42] A study on the prevalence of women at risk for peripartum depression using the Edinburgh Postnatal Depression Scale (EPDS) found 31 (6%) out of 506 women being at risk of peripartum depression.[40] That lower prevalence compared to our study could be due to the fact that they did not use any diagnostic tool to confirm the diagnosis; so, some of the cases would have been missed.

Sociodemographic and clinical profile in women with and without psychiatric illness

In our sample, there was no significant difference in the socio-demographic profiles of perinatal women with or without a current psychiatric diagnosis, similar to a cohort study by Chandran *et al*.[22] However, in our study, marital discord, psychosocial stressors and a past history of psychiatric disorders were significantly higher in perinatal women with a current psychiatric diagnosis.

There is a significant presence of psychosocial stressors in women with psychiatric illness in our study, implying the role of the psychosocial factors in the onset and prevalence of psychiatric illnesses. Similar findings were found by Patel *et al*. in a study done in South India, where 78% of the depressed mothers had a history of psychological stressors in the antenatal period.[43] Among psychosocial factors, financial difficulties, experiencing a stressful life event, having a family member with chronic illness, lack of support from family networks or friends, and having conflicts with in-laws, especially the mother-in-law, were found to be important risk factors in a review of perinatal depression in Asian women.[36] Our findings about psychosocial stressors are very similar to those observed in the above review.

Marital discord was significantly more present in women with psychiatric illness and emerged as an important factor associated with psychiatric illnesses in perinatal women, similar to the findings by Chandran *et al*.[22] A review of risk factors for depression during pregnancy in Asian countries found that marital discord and poor support from the husband are important risk factors and that conflict with mother-in-law and dissatisfaction with the infant's gender are more specific to the Asian cultures.[36]

History of psychiatric illness in the past was significantly more positive in patients with psychiatric illness. In a population-based study, Rich-Edwards *et al*.[44] found that a past history of depression was the strongest predictor for antenatal depressive symptoms, and very similar findings were observed in a study done in Canada.[45] A review by Ryan, about depression in pregnancy, reported that past history of depression is a substantial biologic risk factor.[33]

Discussion of cultural formulation interview

The cultural context of the illness experience is essential for effective diagnostic assessment and clinical management. DSM 5 introduced CFI, which is a set of 16 questions that clinicians can use to obtain information about the impact of culture on key aspects of an individual's clinical presentation and care.

Most of the perinatal women and caregivers identified the nature of their symptoms as emotional and behaviour problem, and stated varied factors as the cause for their problem, like pregnancy/physical illness, destiny, stress due to interpersonal problems, and witchcraft. A multicentric qualitative study[46] about postnatal depression across countries and culture found that loneliness, lack of emotional and social support, poor relationships with partners, family conflict, and tiredness emerged strongly as themes across all 15 centres as causes of unhappiness following delivery, and most centres saw a lack of social support, family conflict, and sleeplessness as causes of postnatal depression.

Culture has a great influence on one's practices and understanding. Women with psychiatric illness and their caregivers acknowledged education, religion, and ethical, moral, and cultural values as an important aspect of their cultural identity. Similar findings were reported by two studies done in the southern part of our country.[22,23]

Religion and social support were found in our study as a major moderating factor, similar to the findings by Oates *et al*.[46] Stigma as a prejudice[47] is commonly faced by women in relation to marriage and childbirth,[48] and due to this fear, pregnant women often do not reveal their problems to others and do not seek medical help.[49] In our study, one-third of the women and caregivers identified stigma and financial problems as the major barriers to help-seeking.

A wide range of services was used by the subjects, varying from professional care to faith healers. Trust, easy availability and accessibility, recommendations by the significant others and belief in supernatural causation of illness were important reasons for choosing

a particular facility. Therefore, socio-cultural factors appeared to influence the help-seeking behaviour.[29] The majority of patients and caregivers were ready to accept psychological or pharmacological help to overcome their problems.

Strength and limitations of the study

Psychiatric morbidity in perinatal women has been studied widely, but studies on cultural factors affecting illness understanding and help-seeking behaviour are very few. Thus, studying cultural factors and help-seeking behaviour in a validated structured manner is the strength of our study.

However, there are certain limitations. The sample size was small and the study was conducted at a tertiary care centre. Therefore, its results have limited generalizability. Another limitation was that the scales EPDS and PAS were translated into Hindi (a formal translation and back-translation exercise was not done) and were interviewer-assisted. No structured tool was used to assess psychosocial stressors and marital discord, and these variables were recorded only on the socio-demographic proforma. Also, the CFI used does not have pre-defined interpretations. We were unable to interview two psychotic patients on CFI because of the nature of their illness. Hence their data could not be provided.

CONCLUSION

Psychiatric morbidity is significant in perinatal women attending antenatal and postnatal services, depression being the most common. Psychosocial stressors, marital conflict, and past history of psychiatric illness are significant in the group of perinatal women with current psychiatric illnesses. So, if psychological support is provided to these women on time, it could significantly reduce the occurrence of depression in them. Cultural aspects need to be addressed while planning future preventive and treatment programs for proper detection and treatment of perinatal psychiatric disorders.

Conflicts of interest
There are no conflicts of interest.

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