Research Article

Psychiartric Morbidity in Postpartum Women in Hyderabad -

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ABSTRACT

Introduction: Postpartum psychiatric disorders are defined as mental disturbances, occurring in women of childbearing age within four weeks of childbirth, which leads to illnesses that create considerable family distress and vulnerability which impairs a woman's capability to do her normal work and manage her baby care. Postpartum depression, which is frequently failed to notice by primary health care providers, has been linked by means of turbulence in the mother-infant association and bonding in the child's cognitive and emotional development.

Materials & Methods: A total of 50 postpartum female who were attending the Owaisi Hospital & Princess ESRA hospital were randomly selected for the present study. Socio demographic data was gathered by using semi structured questionnaire. The SCL-90 is intended to measure symptom intensity on nine different subscales. The HAM-D was widely used to assess symptoms of depression.

Results: Primiparity is associated with greater severity of Somatic, Depressive, Anxiety symptoms. Spontaneous remission or lowering of severity of psychological symptoms is seen through one week to four of postpartum period. Type of delivery was not associated with the severity of psychological symptoms.

Conclusion: Based on our data we found that postpartum period is associated with Somatic, Depressive, and Anxiety symptoms and these symptoms had higher severity in first week of postpartum.

Keywords: HAM-D; Postpartum; Psychiatric Disorders; SCL-90

INTRODUCTION

The time period commencing from the delivery of the placenta to the next 6 weeks is considered as puerperium/postpartum. Most of the changes occur during pregnancy, labor, and delivery resolve and revert back the body to non-pregnant condition. After giving birth to a child, women are susceptible to various severe psychiatric symptoms. Women have roughly 22 times more probability to experience manic or psychotic period, in the first month of postpartum than any other period in their life time. Among childbirth associated psychiatric illness, postpartum psychosis is the major severe form with a prevalence of 1-2 per 1000 childbirths predicted in the general population [1-3].

Mental turbulence is a condition that can occur in women of child-bearing age within four weeks of childbirth. This can lead to vulnerability, distress and can impair their day to day activities with baby [4-5].

Postpartum blues, postpartum depression, postpartum psychosis, and postpartum anxiety are considered as Postpartum Psychiatric Disorders (PPD) [6-7]. Postpartum blues are associated with mood disturbances that can occur within few days of delivery (on the 3rd or 4th day) and persist for several days. They can be mild, time limited, and usually do not require special treatment [8]. 10-15% of women after delivery suffer from Non-psychotic postpartum depression in the first 6 weeks, showing signs of PPD. During this disorder suicidal ideation has been frequently reported [9]. Puerperal or postpartum psychosis is one of the severe and rare forms of postnatal disorder at a rate of one to two episodes per 1000 deliveries [10]. Symptoms start in the first 48-72 h or within first 2 weeks of postpartum. Manic episodes accounts for only 15% of psychotic reaction [11], while schizophrenic disorder accounts up to 30% of postpartum psychosis [12]. Postpartum anxiety disorder is commonly associated with stress and anxiety in about 10% of women, postpartum 6 weeks to 6 months [13].

In most of the cases early symptoms include mood fluctuation, insomnia, and obsessive concerns about the newborn. Severe symptoms include hallucinations, delusions, serious mood symptoms, and disorganized behavior [14-15] within 2 weeks postpartum [16]. Symptoms, like "Schneiderian first-rank symptoms" related to schizophrenia are found to be very low [15, 17-19]. Hence

postpartum psychosis is usually considered as a mood disorder and not as a primary psychotic disorder. Risk factors may include a history of bipolar disorder or a previous episode of postpartum psychosis. It is a psychiatric emergency where an urgent psychiatric referral and medical attention is needed to make sure the protection of mother and baby.

For the early clinical assessment of postpartum psychosis, thorough details of family history, physical, neurological and laboratory analysis are needed to eliminate known organic causes for acute psychosis. There are few case reports on misdiagnosis of postpartum psychosis, enlightening a late-onset paraneoplastic encephalitis [20], primary hypoparathyroidism, [21] citrullinemia type I [22] and urea cycle disorder [23]. Differential diagnosis includes examination of vitamin deficiencies, eclampsia, autoimmune diseases, infectious diseases, stroke, metabolic diseases and drug-induced psychosis [24]. Hence, tests are supposed to contain a complete picture of blood, metabolic panel, thyroid, vitamins, urine panel and even head CT or MRI scan.

As a result, guiding women at high-risk for psychosis during pregnancy and the postpartum period is a key challenge for mental health practitioners and obstetricians, [25-27] for which secure and effective relapse prevention would be the best possible strategy.

MATERIALS & METHODS

Subject Selection

A total of 50 postpartum female who were attending the Owaisi Hospital & Princess ESRA hospital were randomly selected for the present study. Female who were physically not well or have any major psychiatric illness and female who were stay far way places were excluded from the study. The study was done between June and August 2011. Study was approved from Institutional Review Board, Deccan College of Medical Sciences, Hyderabad and written informed consent was taken from all the subjects.

Tools used for the study

Semi structured socio demographic questionnaire: Socio demographic data was gathered by using semi structured questionnaire in which age, current marital status, obstetric data current and past, socio economic data, violence from husband or family members were captured for every subjects.

Symptom check-list 90 (SCL-90): The SCL-90 is intended to measure symptom intensity on nine different subscales. It has since been applied as a psychiatric case-finding instrument, as a measure of symptom severity, and as a descriptive measure of psychopathology in different patient populations.

Hamilton rating Scale (HAM-D): The HAM-D was widely used to assess symptoms of depression. The HAM-D relies heavily on clinically interviewing skills and experience of rater on evaluating individuals with depressive symptomatology.

Interview was done to postpartum women in maternity ward. Interview was conducted within 24hr after delivery. Women were explained about the nature and procedure of the study, privacy of information, publication of the study.

RESULT

For the present study a total of 19 postpartum women between the age group of 15-20 and a total of 31 postpartum women between the age group of 21-30 were included and their families monthly income was Rs. 7185/- per month. Among them 54% of women had primary education, 34% had secondary education and 12% were graduates.

In this study 58% women were primiparous (first delivery) and 42% were multiparous. 16% of women had history of abortion and 20% of women had history of fetus death. 52% of women had vaginal delivery, 28% of women had assisted vaginal delivery and 20% of women had undergone Cesarean section.

Mean score of postpartum on somatization subscale in the 1st week is 15.6 and in the 4th-5th week is 9.5. Mean score of postpartum on Depression subscale in the 1st week is 14.32 and in the 4th-5th week of is 9.4. Mean score of postpartum on Anxiety subscale in the 1st week is 10.1 and in the 4th-5th week is 6.9. Mean score of postpartum on additional items in the 1st week is 2.4 and in 4th-5th week is 1.10. Mean score of postpartum on Interpersonal items in the 1st week is 1.3 and in 4th-5th week is 0.6. Mean score of postpartum on Anger subscale in the 1st week is 2.1 and in the 4th-5th week is 2.1. Mean score of postpartum on Phobic subscale in the 1st week is 0.31 and in the 4th-5th week is 0.31. Mean score of postpartum on Paranoid subscale in the 1st week is 0.05 and in the 4th-5th is 0.04. Mean score on Psychosis subscale in the 1st week is 0.15 and in the 4th-5th is 0.15. Mean score of postpartum on Global distress index score in the 1st week is 52.2 and in the 4th-5th is 32.7. Mean score of postpartum on positive scored items is in the 1st week 30.1 and in the 4th-5th is 20.4. Mean score of postpartum on Positive score index in the 1st week is 1.7 and in the 4th-5th is 1.5. From the scores obtained from all the subscales it is clear that there is a decrease in mean scores from 1st week to 4th-5th week of postpartum period and hence data obtained is statistically significant.

In Primiparous women the scores obtained on various HAM-D subscales are noted as-Depressed mood subscale of HAM-D was 12, Insomnia early subscale of HAM-D was 4, Insomnia late subscale of HAM-D was 4, Work & Activities subscale of HAM-D was 8, Psycho-motor retardation subscale of HAM-D was 10, Somatic symptoms (general) subscale of HAM-D was 4, The score on Insight subscale of HAM-D was 8, Diurnal variation subscale of HAM-D was 6.

In Multiparous women the scores obtained on various HAM-D subscales are noted as- Depressed mood subscale of HAM-D was 4, Insomnia early subscale of HAM-D was 2, Insomnia late subscale of HAM-D was 2, Work & Activities subscale of HAM-D was 5, Psycho-motor retardation subscale of HAM-D was 6, Somatic symptoms

(general) subscale of HAM-D was 3, Loss of weight subscale of HAM-D was 2, Insight subscale of HAM-D was 4, Diurnal variation subscale of HAM-D was 2. From the scores obtained above subscales it was noted that HAM-D scores were significantly higher in primiparous women than multiparous women in postpartum period.

HAM-D scores noted on various subscales at 1st week Postpartum women are- Depressed mood subscale of HAM-D was 16, Insomnia early subscale of HAM-D was 6, Insomnia late subscale of HAM-D was 6, Work & Activities subscale of HAM-D was 13, Psycho-motor retardation subscale of HAM-D was 16, Somatic symptoms (general) subscale of HAM-D was 7, Loss of weight subscale of HAM-D was 8, Insight subscale of HAM-D was 12, Diurnal variation subscale of HAM-D was 8.

At 4 weeks HAM-D scores noted on various subscales of Postpartum women are-Depressed mood subscale of HAM-D was 4, Insomnia early subscale of HAM-D was 2, Insomnia late subscale of HAM-D was 3, Work & Activities subscale of HAM-D was 4, Psycho-motor retardation subscale of HAM-D was 4, Somatic symptoms (general) subscale of HAM-D was 3. The score on Loss of weight subscale of HAM-D was 3, Insight subscale of HAM-D was 2, and Diurnal variation subscale of HAM-D was 2. The scores on the above subscales of HAM-D were significantly decreased from 1st to 4th week of postpartum period.

DISCUSSION

The present study was done at Deccan College of Medical Sciences & Owaisi Hospital & Research Centre & Princess Esra General Hospital, Hyderabad. The study group consisted of postpartum women who were selected randomly. These women were interviewed in the 1st week and again in 4-5th week of postpartum period. After obtaining the socio demographic data, each subject was administered SCL-90, & HAM-D scale. The data obtained was analyzed by statistical methods and results were compiled.

In Postpartum women the minimum age was 15 yrs, maximum age was 28 yrs and the mean age was 22.3yrs (Table 1). Studies by O'Hara and Swain (1996) [9] and Beck (2001) [28] found that development of postpartum depression and maternal age had no relationship and the same was inferred in our study.

In the present study, average monthly income (AMI) of each subject was calculated and estimated to be 7185 (in Rs) (Table 1). In their research, Lee (2002) [29] and Senguin (1999) [30], financial strain was found to be an important risk factor for postpartum depression.

In the present study, education level of subjects was classified into three groups, a) Primary (10th class or less), b) Secondary

Table 1: Age, Income & Education of Postpartum women.

Variable		Postpartum Women (N = 50)
	Class Interval	Frequency
Age in years	15-20 21-30	19 31
Average Monthly Income		**Rupees per month 7185**
		%'s
Education	Primary 27	54%
	Secondary 17	34%
	Graduate 6	12%

(intermediate to above) and c) Tertiary (Graduation and above). In postpartum women 54% had primary education, 34% had secondary education and 12% had tertiary education (Table 1). According to O'Hara and Swain (1996) [9] and Beck (2000) [28], there was no clear association between the level of education and postpartum depression.

In our study, 29 women were primiparous and 21 women were multiparous (Table 2). Data on SCL-90 scores was obtained for both primiparous and multiparous women. Comparisons were made between primiparous and multiparous women at one week & four weeks in primiparous and multiparous women.

Primiparous women had higher and statistically significant scores on Somatization, Depression, Anxiety, Obsession subscales of SCL-90 than Multiparous women, (Table 3,4). Stein (1979) [31] reported headaches, muscle pains; gastrointestinal, cardiovascular symptoms are more common in postpartum women but are not intensely severe. In our study severity of depressive symptom score on SCL-90 was more in primiparous women than in multiparous women. Eva Frommer (1976) also reported depressive symptoms

Table 2: Postpartum women Obstetric variables.

Parity		%	N	50
	Primiparous	29		(58%)
	Multiparous	21		(42%)
Fetus abortion	Yes	8		(16%)
	No	42		(84%)
Fetus death	Yes	10		(20%)
	No	40		(80%)
Type of delivery	Vaginal	26		(52%)
	Assisted vaginal	14		(28%)
	Cesarean	10		(20%)

Table 3: Comparison of SCL-90 scores- I[st] week of postpartum women and at 4-5 weeks of postpartum.

Subscales on SCL- 90	1st week of postpartum period		4-5 weeks of postpartum		t-value
	Mean	SD	Mean	SD	
Somatization	15.6	5.7	9.5	4.6	t = I 1.8**
Depression	14.32	6.9	9.4	8.2	
Anxiety	10.1	4.8	6.9	5.74	
Obsession	5.7	4.1	2.5	2.5	
Additional	2.4	1.7	1.10	.9	
Interpersonal	1.3	1.6	.6	.7	
Anger scale	2.1	2.1	2.1	2.1	
Phobic	.31	.465	.31	.465	
Paranoid	.05	.2	.04	.2	
Psychosis	.15	.575	.15	.575	
Global Distress Index (GDI)	52.2	21.2	32.7	18.1	t = 11.48**
Positive Scored Items(PSI)	30.1	10.9	20.4	9.2	t = 10.59**
Positive Score Index (PSD)	1.7	.3	1.5	.3	t = 3.64**

Table 4: Comparison of HAM-D Scores in primiparous & Multiparous Women at 1 week and 4 weeks of postpartum.

	Primiparous	Multiparous	1 week	4 week
Depressed Mood	12	4	16	4
Guilt	2	1	3	0
Suicide	1	0	1	0
Insomnia Early	4	2	6	2
Insomnia Middle	1	0	1	0
Insomnia Late	4	2	6	3
Work and Activities	8	5	13	4
Psychomotor retardation	10	6	16	4
Agitation	2	0	2	0
Anxiety (Psychological)	2	1	3	1
Anxiety (Somatic)	3	2	5	2
Somatic Symptoms (Gastrointestinal)	2	1	3	1
Somatic Symptoms (General)	4	3	7	3
Genital Symptoms	1	0	1	0
Hypochondriasis	1	0	1	0
Loss of weight	6	2	8	3
Insight	8	4	12	2
Diurnal variation	6	2	8	2
Depersonalization & Derealization	0	0	0	0
Paranoid symptoms	0	0	0	0
Obsessional & Compulsive Symptoms	1	0	1	0

were more common in primiparous women. Anxiety symptoms were also more and significantly different in primiparous women than multiparous women. Additional items score on SCL-90 gives information about sleep and appetite disturbances. These scores were higher in primiparous women than in multiparous women. Stein (1979) [31] primiparous women reported having insomnia and loss of appetite. Anger, Hostility, Interpersonal, Phobic anxiety, Psychosis, Paranoid subscale scores of SCL-90 did not differ between two groups in a significant manner (Primiparous & Multiparous). Global Distress Index (GDI) item of SCL-90 is suggested to be the single best indicator of current level of disorder (Derogates 1983) [32]. Primiparous women showed higher and significant scores of GDI than multiparous women. Positive score item of SCL-90 which access response style of the subject didn't differ in a significant way in both groups. Positive Scored Index (PSD), which are total number of items scored above zero, were significantly higher in primiparous women than in multiparous women. These findings suggest primiparous women suffer from greater amount of distress due to psychological symptoms than multiparous women during postpartum period.

Mean scores of Somatization, Depression, Anxiety, obsession, Interpersonal and Additional items on SCL-90 showed significant decline through week one to week four. The mean values of Anger, Paranoid, Psychosis and Phobic scores of SCL-90 had no significant change through week one to week four.

Mean scores of Somatization, Depression, Anxiety, obsession, Additional items on SCL-90 showed significant decline through week one to week four. Anger scores, Paranoid scores, Psychosis score,

Phobic scores of SCL-90 did not change from their mean values in a significant way through week one to four week. The mean score of subscale items of SCL-90 at 1 week and 4 weeks were compared. Global distress indicator of burden of psychopathology also showed significant decrease through week one to week four.

Primiparous women had higher & statistically significant scores on Depressed mood, Insomnia early & late, Work & Activities, Psychomotor retardation, Somatic symptoms (general), Loss of weight, Insight and Diurnal variation; subscales of HAM-D than Multiparous women. The subscale scores of HAM-D at 1 week and 4 weeks of postpartum were compared and the scores had significantly decreased from 1 week to 4 weeks of the same.

The subscales Guilt, Suicide, Insomnia middle, Agitation, Anxiety (psychological/somatic), Somatic symptoms (gastrointestinal), Genital symptoms, Hypochondriasis, Depersonalistion & Derealisation, Paranoid symptoms and Obsessional & Compulsive symptoms of HAM-D at 1 week decreased by 4 weeks of postpartum but were of less significance throughout the postpartum period.

CONCLUSION

Postpartum period is associated with Somatic, Depressive, and Anxiety symptoms and these symptoms had higher severity in first week of postpartum. Spontaneous remission or lowering of severity of psychological symptoms is seen through weeks one to four of postpartum period and type of delivery was not associated with the severity of psychological symptoms. Results obtained in the study are difficult to extrapolate to community, as this study is hospital based.

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