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COMPARE DEPRESSION BETWEEN PRIM PAROUS WOMEN AND MULTIPAROUS WOMEN

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Abstract: **BACKGROUND:** The study examine depression and other psychopathology in postpartum women[1] .Evaluate those results for any significant difference in parity influences the depression scores in all measuring instruments. **Design of the study:** 53 primiparous women and 47 multiparous women were interviewed using semi structured questionare, SCL-90, HAMD and SCID. These results were evaluated using SPSS 12.0**. Results:** Primiparous women suffered from more psychological symptom than multiparous women. This result was reflected across all measuring instruments used in the study (SCL90, HAMD& SCID)

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INTRODUCTION

Aim of the study:

To compare occurrence of depression in postpartum women[1] divided based on their parity. The two groups are primiparous and multiparous women

Objective: To establish which group among primiparous or multiparous women are at more risk for depression using scales like SCL-90, HAMD, and SCID-I

Null hypothesis: There is no statistical difference in incidence of depression in two groups of postpartum women i.e., primiparous and multiparous

MATERIALS AND METHODS

Materials and Methods for the study are described under the following heading

1) Universe of study

2) Criteria for selecting the patient

3) Procedure for enquiry and collecting data

 4). Tools used in the study

Universe of the study

 Subjects were postpartum women admitted in maternity wards of the following hospital **Kurnool medical college** has a dedicated 100 bedded maternity ward

Criteria for selection of women into the study:

Inclusion criteria

1) Women who gave written consent for the postpartum interviews immediately after the delivery.

2) Health condition was stable for interview.

 Exclusion criteria

1. Those who had poor physical or mental health

Procedure of enquiry and data collection

Sample size: the sample size consisted 53 primiparous women and 47 multiparous. This sample was selected using random number generator in SPSS 12 and random number was matched to hospital registration number, hospital case sheets had 5 digits and random number 100-999 generated and last three digits were matched ,if selected patient did not give consent we moved next matching case sheet, and consent was obtained from patient and in-charge doctor. Before start of study consent was obtained ethical committee of the Hospital. The sample size

(number patients consented during the period June &July) was 100 consisted of 53 primiparous and 47 multiparous women

1) Semi structured socio demographic interview

Socio demographic data was gathered by using semi structured questionnaire

In which economic data, violence from husband or family members and address and phone number of the subjects were collected.

2) SCID-I Structured clinical interview for Axis I disorders:[2]

The SCID is a semi-structured interview for making the major Axis I DSM-III-R diagnoses. It is administered by a clinician and includes an introductory overview followed by nine modules, seven of which represent the major axis I diagnostic classes the output of the SCID is a record of the presence or absence of each of the disorders being considered, for current episode (past month).

3) Symptomatic checklist 90 [3, 4, 5]

It has 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 (De-rogatis 2000). The SCL-90 is intended to measure symptom severity.

Although entire scale was administered only depression module, was taken for analysis Intensity on nine different subscales. The 90 items of the questionnaire are scored on a five-point Likert scale, indicating the rate of occurrence of the symptom during the time reference.

4) HAMD [6,7,8]

The HAMD was developed by Hamilton is widely used to assess symptoms of depression. The scale is 17-21 item scale. Ratings are made on the basis of the clinical interview. The items are rated on 0=none/absent symptoms to 4= most severe symptoms. The HAM-D relies heavily on clinically interviewing skills and experience of rater on evaluating individuals with depressive symptomatology (Hamilton 1960, 1967). As most patients score zero on rare items in depression (depersonalization, obsessional and paranoid symptoms). The total scores on HAMD consist of first 17 items. The HAM-D is used to assess the severity of depression (Guy 1976) Inter-rater reliability for the scores ranges from 0.87 to 0.96. Validity appears to be high.

RESULTS

Socio-Demographic data:

The two groups postpartum women were matched with respect age, income, religion and education status did not contribute significantly for the onset of post-partum depression. Violence with spouse had statistically significant impact on onset of depression

Table 1 SCL-90 And HAMD scores

Variable	Primiparous women (N=53)	n	t-value
	Mean(SD)	Mean (SD)	
Age	22.30.1	21.7(2.5)	1.17
Income	7185(2189)	7766(2238)	**.182**

Comparison between primiparous and multiparous women

Mean scores of SCL-90 and HAMD scores compared using independent sample t test. Mean scores were compared using Independent samples 't' test.

When standard deviation was high **Mann Whitney 'U' test** was used

1) Mean scores of items of SCL-90 and HAMD were calculated and compared using independent samples' test. Where standard deviation was high Mann Whitney U test was performed. p-values were obtained from generalized Mann whitney table.

2) Obtained **p-value <0.002 *p<0.025

3) **Bonferroni correction** done because same data was used five times for comparison and hence p- value is divided by five to get final corrected p"value' or obtained p'"value was multiplied by a factor of 5 to get corrected p-value

4) Somatization , depression anxiety, obsessional and additional items were statistically more in primiparous women than multiparous women indicating primiparous women suffered from more Psychopathology than multiparous women

5) Interpersonal, phobia, paranoia, psychosis , anger scores did not differ between two groups significantly

6) Global distress index's indicating gross amount psychopathology which is more in primiparous women and significantly differed from multiparous women.

Table 2: Comparison SCL-90 and HAMD scores between primiparous and multiparous

Table 2 SCL-90 and HAMD mean scores

*p=0.05 **p=0.001

Score item	Primiparity (N=57)		Multiparity N=43		Mann Whitney U Test value
	Mean	SD	Mea	SD	
Somatization	17.6	5.8	13.1	4	t=4.4**
Depression	15.8	6.8	12.1	6.5	U=826*
Anxiety	1.4	4.5	8.3	4.7	U=815*
Obsession	6.8	4.1	4.4	3.5	U=804*
Interpersonal	1.6	1.6	.93	1.4	U=969
Phobia	.28	1.9	.35	.48	U=I 142
Paranoid	. 0 .05	.294	0.05	.21	U=1212
Psychosis	0.21	**0.7**	.07	.33	U=1152
Additional	2.89	1.95	1.74	1.2	U=810*
Anger	.47	2.0	1.6	**2.1**	U=8IO
GDI	59.3	20.7	42.7	**18.16**	t =4.2*
PS	1.75	.211	**1.71**	.44	t-9.435
PSD	33.47	9.9	25.7	10.6	t=3.8*
HAMD	14	7.3	10	7.3	U=805*

7) Mean scores of items of SCL-90 and HAMD were calculated and compared using independent samples' test. Where standard deviation was high Mann Whitney U test was performed. p-values were obtained from generalized Mann Whitney table.

8) Obtained **p-value <0.002 *p<0.025

9) Bonferroni correction done because same data was used five times for comparison and hence p- value is divided by five to get final corrected p'value or obtained p'value was multiplied by a factor of 5 to get corrected p-value

10) Somatization , depression anxiety, obsessional and additional items were statistically more in primiparous women than multiparous women indicating primiparous women suffered from more Psychopathology than multiparous women

11) Interpersonal, phobia, paranoia, psychosis , anger scores did not differ between two groups significantly

12) Global distress index's indicating gross amount psychopathology which is more in primiparous women and significantly differed from multiparous women.

13) HAMD good scale with inter rater correlation (0.7-0.9) .It measures

14) The severity of depression. In this study the mean score is high in primiparous women than multiparous women. The differences in score are statistically significant.

15) Whereas items inter personal, phobia, psychosis, paranoid did not differ significantly between two groups

Table 3 SCID diagnosis

Diagnosis	Primiparity	Multiparity	Chi-square c value
Absent	17(49%)	30(69%)	13.51
Sub threshold depression	13(14 %) **	5(11%)	Df=2
Major depression	23(36%) **	8(20%)	Cramer'sV=0.375

Comparing SCID diagnosis in primiparous and multiparous using chi^2 test

SCID diagnosis in depression module for recent month were obtained after evaluating primiparous and multiparous women. If women satisfied all requisite symptoms DSM III Research version than were diagnosed as major depression or they satisfied any one major symptom and few minor symptoms it's called as sub threshold depression

The results chi^2 indicate the incidence of sub threshold and major depression in primiparous women is more frequent and statistically significant

DISCUSSION

Discussion: The present study was done at obstetrics dept. Kurnool medical college Kurnool, Andhra Pradesh, India the study sample consisted of postpartum women who were selected randomly by matching the random number with last two digits of their case file number. These women were interviewed in the first week. This group consisted 100 women with 53 primiparous and 47 multiparous. After obtaining the socio demographic data each subject was administered SCL-90, SCID-screening questionnaire, SCID -DSM IV depression module, HAMD scales. The data obtained was analyzed by statistical methods using computer software SPSS 12 and results were compiled

Age:

In Postpartum women sample the minimum age was 15 yrs., maximum age was 28 yrs. and the mean age was 22.3yrs .In the Married never pregnant group the minimum age was l5yrs, the maximum age was 27 yrs. and the mean age was 21.7 yrs. Independent sample 't' test was

done to compare the mean of ages of both groups and the difference between mean of ages was statistically not significances O'Hara [9]and Swain (1983) and Beck (2001) found that development of post-partum depression [13] and matema1[14] age had no relationship.

Primiparous vs Multiparous

Primiparous women had higher and statistically significant scores on Somatization, Depression, Anxiety, and Obsession subscales of SCL- 90 than Multiparous women. (See table 2). Stein (1979) reported headaches, muscle aches, gastrointestinal, cardiovascular symptoms are more common in post-partum 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.

O Hara [9](1976) also reported depressive symptoms 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 and Snaith [11](1979) also reported insomnia and loss appetite was more common in primiparous women.

Anger and Hostility, Interpersonal, Phobic anxiety, Psychosis, Paranoid subscale scores of SCL-90 didn't differ between two groups in a significant manner (Multiparous and primiparous).

GLOBAL DISTRESS INDEX

Global distress index (GDI) item of SCL-90 is suggested to be the single best indicator of current level of disorder (Derogates 1983).[3,4,5]

Primiparous women showed higher and significant scores of GDI than multiparous women. Positive score index item of SCL-90 which access response style of the subject didn't differ in a significant way in both groups. Positive scored items (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 in postpartum period (table 2).

SCID I: Table 3

SCID I is clinician rated instrument making it more objective than subjective, even on this objective instrument multiparous women had less chance of being diagnosed with depressive symptoms. On sub threshold depression primiparous women were statistically more than multiparous women. The same result occurred with diagnosis of major depression where number primiparous women positively diagnosed was significantly more than multiparous women

Limitations:

1) The sample is hospital based and is difficult to extrapolate to the entire community.

2) 60% of deliveries occur at home[11] based deliveries are also to be included for better result.

3) To have more accurate psychological status additional checkup done antenatal be included in the study

SCL-90

Obtained **p-value <0.002 *p<0.025

Bonferroni correction done because same data was used five times for comparison and hence p- value is divided by five to get final corrected p"value' or obtained p'"value was multiplied by a factor of 5 to get corrected p-value

> Postpartum women sample was divided into two groups based on parity

> Mean scores of subscale items of SCL-90 and HAMD scores were computed

Mean scores were compared using Independent sample's' test.

When standard deviation was high Mann Whitney U test was used Conclusion based on above table: Somatization, depression, anxiety, obsession addition items, interpersonal, were significantly higher in primiparous women than in multiparous women, indicating primiparous women suffered from more psychopathology in post-partum period.

Global distress index is sum of all items indicating degree ill health felt by the women answering questions in scale. Global distress index is statistically more in Primiparous women. Indicating primiparous women are suffering more disease burden the multiparous women.

Positive scored items and positive score index are significantly higher in primiparous women than multiparous women.

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