

A Study to Assess the Perceived Stress and Coping Strategies of Postnatal Mothers

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Abstract

Background: Stress is an inevitable part of life. Physical, social and psychologically changes occur during the transition to parenthood. Postpartum period is a stressful phase in women's life. Coping strategies play a key role in the smooth transition to motherhood. This study aimed to assess the perceived stress and coping strategies of postnatal mothers.

Materials and Methods: A descriptive design was used to collect data from 140 postnatal mothers using convenience sampling technique after getting informed consent. The respondents were asked to fill Modified Hung Postpartum Stress Scale and Coping Strategies Inventory Short Form. Data were analysed using descriptive statistics, correlation, chi-square, Independent t-test, ANOVA.

Results: The overall perceived stress was found to be mild among 48 (34.29%) postnatal mothers, a majority of 38% postnatal mothers exhibited good coping. There was a statistically significant strong positive correlation between Emotion-Focused Disengagement (EFD) and all three domains of perceived stress. There was also a significant association between coping strategies and selected clinical variables such as the gender of the baby.

Conclusion: Identifying the postpartum stress at an early stage remains a challenge for the fraternity of perinatal psychology. Postpartum stress has the power to influence personal control. Offering psychological interventions facilitates effective coping with the added responsibility of becoming a mother. This calls the nurses to be prudent and proactive in identifying and notifying the red flags because "Midwives are the Defenders of Women's Rights".

Key Word: Perceived stress; Coping strategies; Postnatal

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I. Introduction

Stress is an inescapable aspect of life. By definition, stress is considered as an organism's physiological reaction whereby various defence mechanisms come into play to confront a situation, which is perceived to be threatening or places an increased demand on an individual.¹ Stress causes many changes in our body and our nervous system gets activated, which in turn quickens our heart rate, breathing, metabolism and blood pressure. These responses by the body to counteract a stressful situation helps a person to handle the event effectively and perform well, even under pressure and our body returns to normal, after tackling the stressful event. However, high levels of stress can produce anxiety, other negative emotions, and feelings such as pain, sadness etc., and result in serious psychological disorders such as post-traumatic stress disorder.² The increased responsibility and vulnerability during childbirth might be overwhelming, which can cause postpartum stress.³ Stress perceived by the postnatal mother acts as a predictor of postpartum depressive symptoms.⁴ The role of maternal depressive symptoms is associated with negative neonatal outcomes such as low birth weight or preterm birth.⁵ Hence, the focus on psychological adaptation is needed to prevent mental illness, especially during the perinatal period. Prevention is thus an important tool in research and clinical application, which calls for coping strategies. Keeping this in view, perceived stress and coping strategies have been investigated to understand the relationship between psychological stress and the human capacity to deal with challenges during postpartum period in this study.

II. Material And Methods

A descriptive design was used. The subjects were mothers at 6 weeks to 8 weeks of postnatal period who came to Well Baby Clinic of CMC, Vellore. A total of 124 mothers who gave consent and were willing to participate in the study during the study period of 6 weeks were recruited.

Study Design: Descriptive cross-sectional study

Study Location: This study was undertaken in the Well Baby Clinic of Christian Medical College, Vellore, a tertiary care centre providing multi-speciality health services.

Study Duration: January 2019 to February 2019.

Sample size: 124 patients.

Sample size calculation: The sample size was calculated based on the literature.⁶ To detect a correlation of 0.25 among coping and stress, we needed a sample of 124 subjects. The sample size was calculated for 80% power and 5% error.

Subjects & selection method: Postnatal mothers between 6 to 8 weeks of postpartum period were the participants. Convenient sampling technique was used to select the postnatal mothers who visited the Well Baby Clinic of CMC, Vellore.

Inclusion criteria:

1. Mothers who were between 6 to 8 weeks postnatal period.
2. Mothers who were able to comprehend Tamil, English, Hindi.

Exclusion criteria:

1. Mothers whose babies with congenital anomalies and also who developed complications like birth asphyxia, hyperbilirubinemia, preterm birth, low birth weight and who were admitted in Neonatal Intensive Care Unit.
2. Mothers who developed complications during childbirth like postpartum haemorrhage, eclampsia, and puerperal sepsis.
3. Mothers previously diagnosed with acute stress disorder/ postpartum psychosis / depression or any other psychiatric disorders.

Procedure methodology

Data were collected over 6 weeks, from Monday to Friday between 8 am to 4 pm and between 8 am to 1 pm on Saturdays in Well Baby Clinic. Data about the subject was obtained from the immunization card issued at the Well Baby Clinic. Postnatal mothers who met the inclusion criteria were selected using convenient sampling technique. The investigator introduced self and established a good rapport. An information sheet was provided to the mother in the language that she was able to comprehend. The investigator then explained the purpose of the study and obtained verbal and written consent. Information regarding socio-demographic and clinical variables was collected. The Modified Hung Postpartum Stress Scale and Coping Strategies Inventory Short Form (self-administered questionnaire) were given to the postnatal mother in the language that she was able to comprehend. Instructions regarding questionnaire were given and doubts were clarified by the investigator. This was done before the child is taken for immunization while the mother was waiting to meet the doctor. The investigator checked for any missing response on completion and the data was tabulated.

Statistical analysis

Data analysis was done using SPSS Version 17.0. Categorical variables were described using frequency and percentage. The Modified HPSS data was skewed, thus log transformation was done to achieve the normality and further analysis was done. A factor analysis with Promax rotation, with ML extraction method, was used to derive the domains in Modified HPSS. Quantitative variables were summarized using mean and standard deviation for normally distributed variables for coping strategies. The correlation between the perceived postpartum stress and coping strategies was calculated using Pearson's correlation coefficient.

Chi-square test was used to find the association between postpartum stress with selected demographic and clinical variables of postnatal mothers. Chi-square test was used to find the association between coping strategies with selected demographic and clinical variables of postnatal mothers. ANOVA and Independent t-test was used to compare the means between coping with demographic with socio-demographic and clinical variables. The 'p' value of 0.05 was considered to be statistically significant.

III. Result

The findings of the study are presented in the following order:

Section A: Distribution of postnatal mothers based on socio-demographic variables.

Section B: Distribution of postnatal mothers based on clinical variables.

Section C: Descriptive analysis of overall perceived stress of postnatal mothers.

Section D: Descriptive analysis of perceived stress related to Maternal Role Attainment of postnatal mothers.

Section E: Descriptive analysis of perceived stress related to negative Body Changes of postnatal mothers.

Section F: Descriptive analysis of perceived stress related to lack of Social Support of postnatal mothers.

Section G: Descriptive analysis of overall coping of postnatal mothers.

Section H: Descriptive analysis of perceived stress related to total stress and Maternal Role Attainment (MRA), negative Body Changes (BC), lack of Social Support (SS) domains of postnatal mothers.

Section I: Descriptive analysis of coping strategies related to total coping and Problem-Focused Engagement (PFE), Problem-Focused Disengagement (PFD), Emotion-Focused Engagement (EFE), Emotion-Focused Disengagement (EFD) domains of postnatal mothers.

Section J: Correlation between perceived stress and coping strategies of postnatal mothers.

Section K: Regression analysis between perceived stress and overall coping strategies of postnatal mothers.

Section L: Regression analysis between perceived stress and emotion-focused coping of postnatal mothers.

Section M: Association between perceived stress and coping strategies of postnatal mothers with selected socio-demographic and clinical variables.

Section N: Comparison of coping strategies with socio-demographic and clinical variables of postnatal mothers using independent t- test and ANOVA test.

Section A: Table no 1 shows 71 (50.7%) of the postnatal mothers were in the age group of 26 – 30 years. 78 (55.7%) of them have had graduate education and a great number 115 (82.1%) of them were homemakers. Majority 89 (63.6%) population resided in urban area and 92 (65.7%) were living in joint family. Majority of 40 (28.6%) mothers reported a monthly income of 23674 - 47374.

Table no 1: Distribution of postnatal mothers based on socio-demographic variables

Socio-demographic Variables	Mean	Standard Deviation	Frequency n= 140	Percentage
Age (years)	27.14	3.76		
18-25			46	32.9
26-30			71	50.7
31-35			21	15.0
36 and above			2	1.4
Mother's Education				
Illiterate			-	-
Primary			1	0.7
Middle school			4	2.9
High school			9	6.4
Diploma			24	17.1
Graduate			78	55.7
Professional degree			24	17.1
Mother's Occupation				
Employed			25	17.9
Home maker			115	82.1
Husband's Occupation				
Employed			140	100
Unemployed			-	-
Place of residence				
Urban			89	63.6
Rural			51	36.4
Type of family				
Nuclear			48	34.3
Joint			92	65.7
Monthly income				
Rs.47348 and above			22	15.7
Rs.23674 – 47347			40	28.6
Rs.17756 – 23673			23	16.4
Rs.11837 – 17755			22	15.7
Rs.7102 – 11836			19	13.6
Rs.2391 – 7101			14	10
Less than 2390			-	-

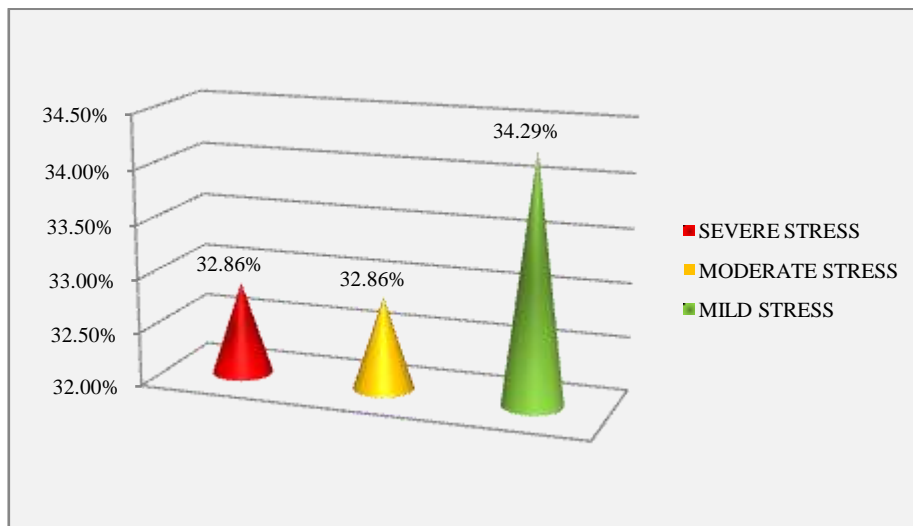
Section B: Table no 2 shows that most of them (54.3%) were primigravida and primiparous. 85.0% had no history of abortion. Majority 70.7% of mothers had normal vaginal delivery and gender of the baby was 50% equally distributed as girl and boy.

Table no 2: Distribution of postnatal mothers based on clinical variables

Clinical variables	Frequency	Percentage
No of pregnancies		
Primigravida	76	54.3
Multigravida	64	45.7
No of miscarriages		
NIL	119	85.0
1	18	12.9
2	3	2.1
No of deliveries		
Primiparous	76	54.3
Multiparous	64	45.7
Mode of delivery		
Normal vaginal	99	70.7
LSCS	37	26.4
Instrumental	4	2.9
Gender of the baby		
Boy	70	50.0
Girl	70	50.0

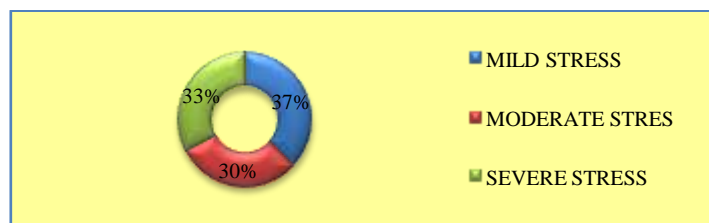
Section C: Figure no 1 shows maximum number 48 (34.29%) of postnatal mothers experienced mild stress.

Figure no 1 Descriptive analysis of overall perceived stress of postnatal mothers



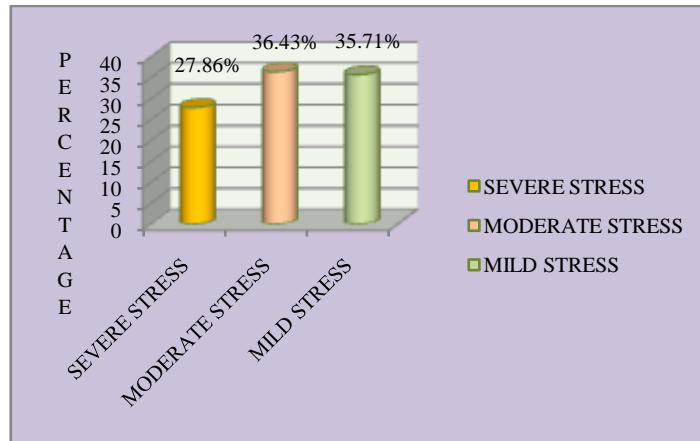
Section D: Figure no 2 shows majority 52 (37%) of the postnatal mothers felt mild stress.

Figure no 2 Descriptive analysis of perceived stress related to Maternal Role Attainment



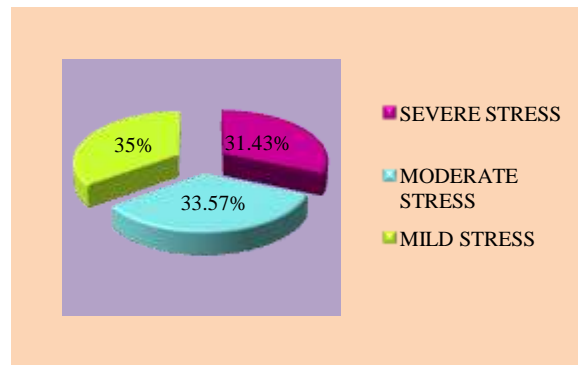
Section E: Figure no 3 shows that a majority 51 (36.43%) of the postnatal mothers perceived moderate stress.

Figure no 3 Descriptive analysis of perceived stress related to negative Body Changes of postnatal mothers



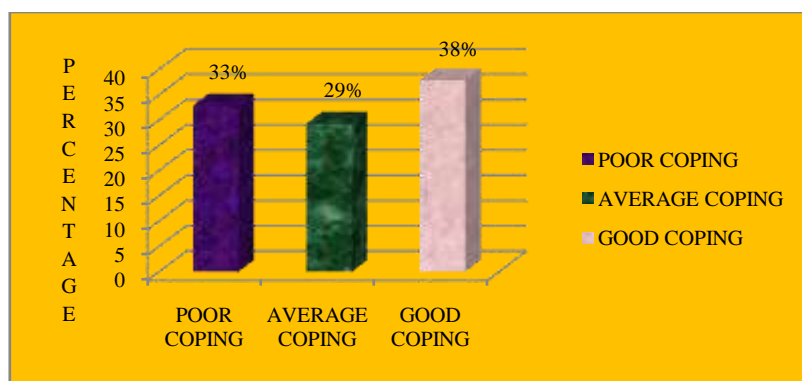
Section F: Figure no 4 shows majority 49 (35%) of the mothers had mild stress.

Figure no 4 Descriptive analysis of perceived stress related to lack of Social Support of postnatal mothers



Section G: Figure no 5 shows majority 53 (38%) of the postnatal mothers had good coping.

Figure no 5 Descriptive analysis of overall coping of postnatal mothers



Section H: Table no 3 shows the median of total stress was found to be (75) and among the three domains of perceived stress of postnatal mothers, Maternal Role Attainment has the highest median (36), whereas negative Body Changes has the lowest median (19).

Table no 3 Descriptive analysis of perceived stress related to total stress and Maternal Role Attainment (MRA), negative Body Changes (BC), lack of Social Support (SS) domains of postnatal mothers

Variables	N	Median	IQR
Total Stress	140	5	0-181
MRA	140	6	8-44
BC	140	9	5-24.75
SS	140	0	7-24.75

SECTION I: Table no 4 shows the mean of total coping was (48.83 with ± 10.41 SD) and among the four domains of coping strategies of postnatal mothers Problem-Focused Engagement has the highest mean (14.2 with ± 3.2 SD) and Emotion-Focused Disengagement has the lowest mean (8.97 with ± 3.91 SD).

Table no 4 Descriptive analysis of coping strategies related to total coping and Problem-Focused Engagement (PFE), Problem-Focused Disengagement (PFD), Emotion-Focused Engagement (EFE), Emotion-Focused Disengagement (EFD) domains of postnatal mothers

Variables	N	Mean	Std. Deviation
Total Coping	140	48.83	10.41
PFE	140	14.20	3.2
PFD	140	11.72	3.43
EFE	140	13.94	4.46
EFD	140	8.97	3.91

SECTION J: Table no 5 shows that there is a statistically significant positive correlation between Problem-Focused Disengagement and negative Body Changes ($r = 0.183$; $p < 0.05$). There is a statistically significant strong positive correlation between Emotion-Focused Disengagement (EFD) and all three domains of perceived stress that is, EFD and Maternal Role Attainment ($r = 0.2600$, $p < 0.005$); EFD and negative Body changes ($r = 0.1896$, $p < 0.05$); EFD and lack of Social Support ($r = 0.3160$, $p < 0.001$).

Table no 5 Correlation between perceived stress and coping strategies of postnatal mothers

Coping Strategies	Maternal Role Attainment		Negative Body Changes		Lack of Social Support	
	r value	p value	r value	p value	r value	p value
Problem-Focused Engagement	0.0029	0.9725	0.1059	0.2130	-0.0107	0.8998
Problem-Focused Disengagement	0.1443	0.0890	0.1830	0.0305	0.0827	0.3316
Emotion-Focused Engagement	-0.0125	0.8833	0.0723	0.3956	0.0264	0.7567
Emotion-Focused Disengagement	0.2600	0.0019	0.1896	0.0249	0.3160	0.0001

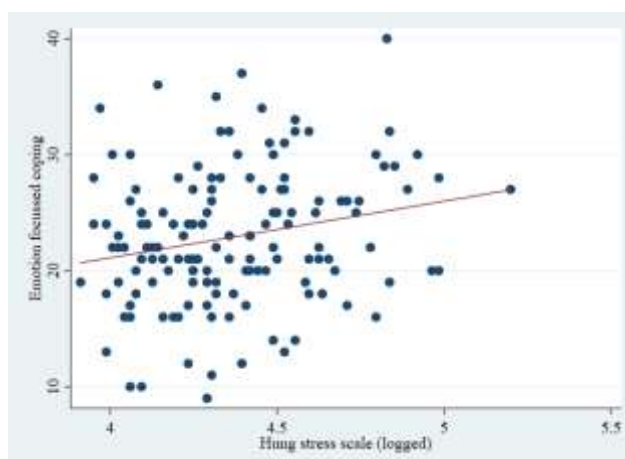
Section K: Table no 6 shows a statistically significant regression between total perceived stress with total coping strategies $r = 7.43$ with p value = 0.02 and emotion-focused disengagement and perceived stress of postnatal mothers with $r = 4.47$ (2.11, 6.83 CI) p value = 0.000.

Table no 6 Regression analyses between perceived stress and overall coping strategies of postnatal mother.

	β (95% CI)	p-value
Total	7.43 (1.13, 13.73)	0.02
PFE	0.44 (-1.58, 2.46)	0.66
PFD	2.10 (-0.036, 4.25)	0.05
EFE	0.40 (-2.41, 3.22)	0.77
EFD	4.47 (2.11, 6.83)	0.000

Section L: Figure no 6 shows a significant regression curve between emotion focussed coping and perceived stress of postnatal mothers with $r^2 = 0.049$. It was calculated using the formula Emotion focused coping = Constant value + Co-efficient of EFD (log Modified HPSS) and indicated that, as the perceived stress increased coping decreased.

Figure no 6 Regression analyses between Emotions focussed coping and perceived stress of postnatal mothers



Section M: Table no 7 shows no significant association between perceived stress and selected socio-demographic variables of postnatal mothers.

Table no 7 Association of perceived stress with selected socio-demographic variables of postnatal mothers

Variables	Mild		Moderate		Severe		Total (n) 140	χ^2	p value
	n	%	n	%	n	%			
Age								8.372	0.212
18-25	14	26.92	10	23.81	22	47.83	46		
26-30	27	51.92	25	59.52	19	41.30	71		
31-35	10	19.23	6	14.29	5	10.87	21		
36 and above	1	1.92	1	1.92	-	-	2		
Mother's Education								7.498	0.186
Illiterate	-	-	-	-	-	-	-		
Primary	-	-	1	100	-	-	1		
Middle school	-	-	4	100	-	-	4		
High school	-	-	5	55.6	4	44.4	9		
Diploma	-	-	6	25.0	18	75.0	24		
Graduate	-	-	23	29.5	55	70.5	78		
Professional degree	-	-	6	25.0	18	75.0	24		
Mother's Occupation								0.5236	0.770
Employed	10	19.23	6	14.29	9	19.57	25		
Home maker	42	80.77	36	85.71	37	80.43	115		
Husband's Occupation								-	-
Employed	52	100	42	100	46	100	140		
Unemployed	-	-	-	-	-	-	-		
Place of residence								2.732	0.255
Urban	33	63.46	23	54.76	33	71.74	89		
Rural	19	36.54	19	45.24	13	28.26	51		
Type of family								1.099	0.577
Nuclear	15	28.85	16	38.10	17	36.96	48		
Joint	37	71.15	26	61.90	29	63.04	92		
Monthly income									
Rs.47348 and above	-	-	4	9.8	18	18.2	22		
Rs.23674 – 47347	-	-	13	31.7	27	27.3	40		

Rs.17756 – 23673	-	-	7	17.1	16	16.2	23	2.958	0.580
Rs.11837 – 17755	-	-	8	19.5	14	14.1	22		
Rs.7102 – 11836	-	-	4	9.8	15	15.2	19		
Rs.2391 – 7101	-	-	5	12.2	9	9.1	14		
Less than 2390	-	-	-	-	-	-	-		

Table no 8 shows no significant association between perceived stress and selected clinical variables of postnatal mothers.

Table no 8: Association of perceived stress with selected clinical variables of postnatal mothers

Variables	Mild		Moderate		Severe		Total (n) 140	χ^2	p value
	n	%	n	%	n	%			
No of pregnancies								0.811	0.245
Primigravida	24	46.15	23	54.76	29	63.04	76		
Multigravida	48	53.85	19	45.24	17	36.96	64		
No of miscarriages								4.709	0.318
NIL	46	88.46	32	76.19	41	89.13	119		
1	5	9.62	8	19.05	5	10.87	18		
2	1	1.92	2	4.76	-	-	3		
No of deliveries								2.811	0.245
Primiparous	24	46.15	23	54.76	29	63.04	76		
Multiparous	28	53.85	19	45.24	17	36.96	64		
Mode of delivery								2.083	0.720
Normal vaginal	38	73.08	27	64.29	34	73.91	99		
LSCS	13	25.00	14	33.33	10	21.74	37		
Instrumental	1	1.92	1	1.92	2	4.35	4		
Gender of the baby								0.520	0.771
Boy	25	47.62	20	47.62	25	54.35	70		
Girl	27	52.38	22	52.38	21	45.65	70		

Table no 9 shows no significant association between coping strategies and selected socio-demographic variables of postnatal mothers.

Table no 9 Association of coping stress with selected socio-demographic variables of postnatal mothers

Variables	Poor		Average		Good		Total (n) 140	χ^2	p value
	n	%	n	%	n	%			
Age								2.957	0.398
18-25	24	52.2	22	47.8	-	-	46		
26-30	37	52.1	34	47.9	-	-	71		
31-35	13	61.9	8	38.1	-	-	21		
36 and above	-	-	2	100.0	-	-	2		
Mother's Education								0.220	0.666
Illiterate	-	-	-	-	-	-	-		
Primary	-	-	1	100	-	-	1		
Middle school	3	75	1	25.0	-	-	4		
High school	6	66.7	3	33.3	-	-	9		
Diploma	14	58.3	10	41.7	-	-	24		
Graduate	39	50.0	39	50.0	-	-	78		
Professional degree	12	50.0	12	50.0	-	-	24		
Mother's Occupation									

Employed	17	68	8	32	-	-	25	2.801	0.094
Home maker	57	49.6	58	50.4	-	-	115		
Husband's Occupation								-	-
Employed	74	52.9	66	47.1	-	-	140		
Unemployed	-	-	-	-	-	-	-	0.000	0.988
Place of residence									
Urban	47	52.8	42	47.2	-	-	89		
Rural	27	52.9	24	47.1	-	-	51	0.715	0.398
Type of family									
Nuclear	23	47.9	25	52.1	-	-	48		
Joint	51	55.4	41	44.6	-	-	92	0.648	0.311
Monthly income									
Rs.47348 and above	12	16.2	10	15.2	-	-	22		
Rs.23674 – 47347	17	23.0	23	34.8	-	-	40		
Rs.17756 – 23673	14	18.9	9	13.6	-	-	23		
Rs.11837 – 17755	11	14.9	11	16.7	-	-	22		
Rs.7102 – 11836	11	14.9	11	12.1	-	-	19		
Rs.2391 – 7101	9	12.2	9	7.6	-	-	14		
Less than 2390	-	-	-	-	-	-	-		

Table no 10 shows a significant association between coping strategies and selected clinical variables such as gender of the baby ($p < 0.05$) of postnatal mothers.

Table no 10: Association of coping strategies with selected clinical variables of postnatal mothers

Variables	Poor		Average		Good		Total (n) 140	χ^2	p value
	n	%	n	%	n	%			
No of pregnancies								0.159	0.619
Primigravida	39	51.3	37	48.7	-	-	76		
Multigravida	35	54.7	29	45.3	-	-	64		
No of miscarriages								0.289	0.865
NIL	63	52.9	56	47.1	-	-	119		
1	9	50.0	9	50.0	-	-	18		
2	2	66.7	1	33.3	-	-	3	0.159	0.619
No of deliveries									
Primiparous	39	51.3	37	48.7	-	-	76		
Multiparous	35	54.7	29	45.3	-	-	64	1.883	0.390
Mode of delivery									
Normal vaginal	49	49.5	50	50.5	-	-	99		
LSCS	22	59.5	15	40.5	-	-	37		
Instrumental	3	75.0	1	25.0	-	-	4	4.182	0.042
Gender of the baby									
Boy	43	61.4	27	38.6	-	-	70		
Girl	31	44.3	39	55.7	-	-	70		

Section – N: Table no 11 shows a significant difference in mean between coping strategies and selected clinical variables of postnatal mothers such as gender of the baby ($p < 0.05$).

Table no 11: Comparison of coping strategies with socio demographic and clinical variables of postnatal mothers using independent t- test

Variables	n	Coping Strategies	t value	p value
Mother's Occupation		Mean \pm SD		

Employed	25	52.60 ± 9.37	1.89	0.06
Home maker	115	48.39 ± 10.51		
Husband's Occupation			-	-
Employed	140	49.06 ± 10.41		
Home maker	-	-		
Type of family			-1.062	0.290
Nuclear	48	47.77 ± 11.45		
Joint	92	49.74 ± 9.83		
No of pregnancies			-0.534	0.594
Primigravida	76	48.63 ± 10.47		
Multigravida	64	49.58 ± 10.40		
No of deliveries			-0.534	0.594
Primiparous	76	48.63 ± 10.47		
Multiparous	64	49.58 ± 10.40		
Gender of the baby			-2.048	0.043
Boy	70	1.38 ± 0.49		
Girl	70	1.55 ± 0.50		

Table 12 shows that there was no significant difference in the mean between coping strategies and selected socio-demographic and clinical variables of postnatal mothers.

Table 12: Comparison of coping strategies with socio-demographic and clinical variables of postnatal mothers using ANOVA test

Variables	n	Coping Strategies Mean ±SD	F value	p value
Age			1.979	0.120
18-25	46	87.00 ± 25.59		
26-30	71	80.12 ± 22.01		
31-35	21	73.85 ± 17.96		
36 and above	2	69.00 ± 14		
Mother's Education			0.544	0.743
Illiterate	-	-		
Primary	1	42.00 ± -		
Middle school	4	50.25 ± 8.846		
High school	9	44.67 ± 12.42		
Diploma	24	50.63 ± 12.29		
Graduate	78	49.29 ± 10.30		
Professional degree	24	48.50 ± 8.490		
No of miscarriages			0.327	0.722
NIL	119	81.72 ± 23.63		
1	18	80.05 ± 19.33		
2	3	71.33 ± 15.50		
Mode of delivery			0.258	0.733
Normal vaginal	99	82.16 ± 23.44		
LSCS	37	78.97 ± 22.14		
Instrumental	4	81.00 ± 20.99		

IV. Discussion

The mean age of the study subjects was 27.14 ± 3.76 years, with the minimum age of 19 years and maximum age of 39 years of age. Investigator found that majority 50.7% were in the age group of 26 – 30 years. The demographics of age were almost similar to the prevalence of postpartum depression which was found to be with a mean age of 26.06 ± 5.79.⁷ It is interesting to see that the number of teenage pregnancy is 1.4% which is significantly lower than the national average of 7.9% during the National Family Health Survey 2015 - 2016. All the participants in this study were literates corresponding to 73.86 % literacy rate of Tamil Nadu 2017-2018 (Retrieved from <http://www.pincodindia.net/literacy-rate.php>). 55.7% of them were highly educated with graduate education and yet 82.1% of them were homemakers because most of them verbalized that they did not work since they wanted to take care of the child. This is not surprising as the female Labour Force Participation Ratio in India 2018 is only 24 % (<http://data.worldbank.org/indicator/sl.tlf.cact.fe.zs>). Majority of 92 (65.7%) lived in a joint family along with their in-laws to raise their child with aid. These findings were supported by the study done in Lebanon.⁸

In the present study, the overall stress was estimated to be mild among majority of the postnatal mothers 48 (34.29%) because of the increased level of preparedness among women to attain motherhood and adequate social support obtained from the family members. These factors aid a postnatal mother to experience a decreased amount of stress, in spite of the body changes occurring during pregnancy and postnatal period. This is reflected from this study results in terms of domains, where the stress related to maternal role attainment was

mild in majority 52 (37 %) of postnatal mothers and 51 (36.43%) had moderate stress in negative body changes domain and 49 (35%) depicted mild stress regarding lack of social support. Nevertheless overall severe stress of postnatal mothers in the current study was found to be among 46 (32.86%) postnatal mothers which correspond to the following domains; maternal role attainment - 46 (33%), negative body changes – 39 (27.86%), lack of social support – 44 (31.43%). Also the mounting evidences of various studies suggest that, stressful life events during pregnancy enhance the risk for developing postpartum depression.^[9,10,11,12] The pooled prevalence of postpartum depression in India in a meta-analysis was 22%.¹³ This warns us to be alert and watch out for the red flags. Focusing on such mothers at an early stage and implementation of appropriate preventive strategies will be of great benefit in bringing down the number of postpartum depression cases.

Analysis of coping strategies for the present study revealed that the mean scores of each domain (problem focused engagement, problem-focused disengagement, emotion-focused engagement, emotion-focused disengagement) were 14.20 ± 3.2 , 11.72 ± 3.43 , 13.94 ± 4.46 , 8.97 ± 3.91 respectively. The findings depict that problem-focused engagement has the highest mean compared to other domains related to coping strategies and it was found to have been employed by most of the postnatal mothers to tackle the stressful situation. This was supported by the opinion of 62 (44.3%) postnatal mothers that ‘I try to look on the positive side of things’ and 62 (44.3%) of them responding ‘I tackle the problem head-on’.

The emotion-focused engagement had the second highest mean score with a maximum response of ‘I try to talk about it with a friend or family’ by 64 (45.7%) of postnatal mothers. These findings were consistent with the findings of a cross-sectional study done in rural Ethiopia.¹⁴ This finding highlights that emotion-based coping strategy was the most commonly employed strategy by mothers with postpartum depression.

In problem focused disengagement domain a majority of postnatal mothers response was ‘never’ to the following questions that are, ‘I try not to think about the problem’ - 79 (56.4%) and ‘I try to put the problem out of my mind’ - 60 (42.9%). The emotion-focused disengagement domain mean was lesser than other domains and the response of 70 (50%) mothers replied that ‘I keep my thoughts and feelings to me and 68 (48.6%) postnatal mothers were ‘I tend to criticize myself’.

Disengagement coping refers to strategies of avoidance in context with the problems or associated emotions. A literature review, reported that people with depression most probably adopt avoidance coping strategies.¹⁵ It had been stated that an individual uses problem-focused coping when they perceive stress as manageable and are drawn in favour of emotion-focused coping when they feel the situation is uncontrollable and hopeless.¹⁶ In line with these references, though the mean values of problem-focused disengagement and emotion-focused disengagement coping was found to be less when compared to that of problem-focused engagement and emotion-focused engagement, it can be concluded that special attention must be given to the respondents who adopt avoidance strategies in both problem-focused disengagement and emotion-focused disengagement, since they are prone to get depression as a long term sequel. Mothers need to be educated about coping strategies such as praying, reading books, and expressing emotions to overcome the stress after delivery.

The present study reflected that there was a statistically significant strong positive correlation between Emotion-Focused Disengagement (EFD) and all three domains of perceived stress that is, EFD and maternal role attainment ($r = 0.2600$, $p < 0.001$), EFD and negative body changes ($r = 0.189$, $p < 0.05$) and EFD and lack of social support ($r = 0.3160$, $p < 0.001$). This indicated that when the postnatal mother’s perception of stress due to performance of activities of motherhood, physical changes in the body during the perinatal period and inadequate support from significant others increased, they used avoidance strategy to cope, in other words, emotion-focused disengagement coping. It was found that there was a statistically significant positive correlation existed between the level of perceived postpartum stress and coping strategies in emotion-focused disengagement ($r = 0.532$, $p \leq 0.001$).⁶

Further analysis of the domains of Modified Hung Postpartum Stress Scale and Coping Strategies Inventory Short Form reveals that there was a statistically significant positive correlation between Problem Focused Disengagement and negative body changes ($r = 0.183$; $p < 0.05$). This finding brings into light that when there is an enhanced perception of negative body change as a stressor the postnatal mothers employed avoidance of the actual problem by applying problem focused disengagement.

The regression analysis of perceived stress and coping strategies of postnatal mothers in this study depicted a statistically significant finding between emotion-focussed coping and perceived stress of postnatal mothers ($r^2 = 0.049$). It indicated that as the perceived stress increased coping decreased. In line with this finding, dealing with multiple changes during the postnatal period may lead to a negative appraisal of stressors and believing oneself to be lacking in the resources required to deal with the changes portray the feeling of powerlessness among postnatal mothers. As depicted in the finding mentioned above, it may lead to emotion-focused coping, such as defensiveness, blame or withdrawal which may result in an inability to move on and solve the challenges effectively thereby the resilience capacity is significantly reduced.

V. Conclusion

Reflection of this study focuses on the cumbersome stress faced by postnatal mother and the significance of employing appropriate coping strategies to overcome the same. This calls the nurses to be prudent and proactive in identifying and notifying the red flags that may imply that the postnatal mother is undergoing a stressful phase in her life. It is essential that nurses remain abreast and accommodative in providing compassionate care to postnatal mothers because “Midwives are the Defenders of Women’s Rights”.

References

- [1]. Scott, E. Stress in College, Common Causes of Stress in College. *Health Promotion International Journal*. 2011; Volume 2 (16): 215- 232.
- [2]. Tse, J. L., Flin, R., &Mearns, K. Facets of job effort in bus driver health: deconstructing "effort" in the effort-reward imbalance model. *Journal of occupational health psychology*. 2007; 12(1), 48–62. <https://doi.org/10.1037/1076-8998.12.1.48>
- [3]. Hung, CH. Psychosocial Features at Different periods after childbirth. *The Kaohsiung Journal of medical Science*. 2007; Volume 23 (2): 71-79. [https://doi.org/10.1016/S1607-551X\(09\)70378-X](https://doi.org/10.1016/S1607-551X(09)70378-X).
- [4]. Iona S. Yim, Lynlee R. Tanner Stapleton, Christine M. Guardino, Jennifer Hahn-Holbrook, Christine DunkelSchetter, Biological and Psychological Predictors of Postpartum Depression: Systematic Review and Call for Integration, *Annual Review of Clinical Psychology*. 2015; 11:1, 99-137. doi: 10.1146/annurev-clinpsy-101414-020426.
- [5]. Goedhart G, Snijders AC, Hesselink AE, van Poppel MN, Bonsel GJ, Vrijkotte TG. Maternal depressive symptoms in relation to perinatal mortality and morbidity: results from a large multiethnic cohort study. *Psychosomatic Medicine*. 2010; 72(8):769-776. doi:10.1097/PSY.0b013e3181ee4a62
- [6]. Mathew RM, T AP, Mg S. Perceived Postpartum Stress And Coping Strategies Among Postnatal Mothers At AIMS, Kochi. *Asian Journal of Pharmaceutical and Clinical Research*<https://doi.org/10.22159/ajpcr.2017.v10i12.21257>
- [7]. Kerie, S., Menberu, M., &Niguse, W. Prevalence and associated factors of postpartum depression in Southwest, Ethiopia, 2017: a cross-sectional study. *BMC research notes*, 11(1), 623. <https://doi.org/10.1186/s13104-018-3730-x>
- [8]. Osman, H., Saliba, M., Chaaya, M., &Naasan, G. Interventions to reduce postpartum stress in first-time mothers: a randomized-controlled trial. *BMC women's health*. 2014; 14, 125. <https://doi.org/10.1186/1472-6874-14-125>.
- [9]. Rogers, C. E., Kidokoro, H., Wallendorf, M., &Inder, T. E. Identifying mothers of very preterm infants at-risk for postpartum depression and anxiety before discharge. *Journal of perinatology: official journal of the California Perinatal Association*. 2013; 33(3), 171–176. <https://doi.org/10.1038/jp.2012.75>
- [10]. O’Hara, MW, McCabe, JE. . Postpartum Depression: Current status and future directions. *Annual Review of Clinical Psychology*. 2013; Volume 9: 379-407. <https://doi.org/10.1146/annurev-clinpsy-050212-185612>.
- [11]. Demirchyan, A., Petrosyan D., Armenian, HK, Rate and predictors of postpartum depression in a 22 year follow up of cohort of earthquake survivors in Armenia, *Archives of Women’s Mental Health*. 2014; Volume 17 (3): 229-237. doi: 10.1007/s00737-013-0404-5.
- [12]. Chojenta C., Loxton D., Lucke J. How do previous mental health, social support and stressful life events contribute to postnatal depression in a representative sample of Australian women? *Journal of Midwifery and Women’s Health*. 2012; Volume 57 (2): 145-150. doi: 10.1111/j.1542-2011.2011.00140.
- [13]. Ravi PrakashUpadhyay, RanadipChowdhury et al, 2017- Ravi PrakashUpadhyay, A., RanadipChowdhury, B., AslyehSalehi, C., KaushikSarkar, D., Sunil Kumar Singh, A. Postpartum Depression in India: A Systematic Review and Meta-analysis, *Bulletin of the World Health Organization*: 2017; Volume 95: 706-717C. doi: <http://dx.doi.org/10.2471/BLT.17.192237>.
- [14]. Azale, T., Fekadu, A., Medhin, G., & Hanlon, C. Coping strategies of women with postpartum depression symptoms in rural Ethiopia: a cross-sectional community study. *BMC psychiatry*. 2018; 18(1), 41. <https://doi.org/10.1186/s12888-018-1624-z>
- [15]. Bjorklof GH, Engedal K, Selbaek G, Kouwenhoven SE, Helvik AS, (2013) - Bjorklof, GH., Engedal, K., Selbaek, G., Kouwenhoven, SE., Helvik, AS. (2013). Coping and Depression in Old Age: A Literature Review. *Dementia and Geriatric Cognitive Disorders*, Volume 35 (3-4): 121-154. doi: 10.1159/000346633. *Dementia Geriatric Cognitive Disorders* 2013;35:121–154 <https://doi.org/10.1159/000346633>
- [16]. Folkman, S. Personal control stress and coping processes: A theoretical analysis. *Journal of Personality and Social Psychology*. 1984; Volume 46 (4), 839- 852. <https://psycnet.apa.org/doi/10.1037/0022-3514.46.4.839>.

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