



To assess the stress level among mother of neonates admitted in Neonatal Intensive Care Unit (NICU) and step-down ICU-Intermediate Care Nursery (ICN) unit

Dr. Himani^{1*}, Rinku Mehmi², Anurag Singh Rajput³, Ankita³, Aarti³, Anjana Devi³

¹ Vice Principal cum Lecturer, College of Nursing, Government Medical College and Hospital, Chandigarh, India

² College of Nursing, Government Medical College and Hospital, Chandigarh, India

³ Department of Nursing, Intern College of Nursing, Government Medical College and Hospital, Chandigarh, India

Correspondence Author: Dr. Himani

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Abstract

Background: Hospitalization is the traumatic event to the family member it causes stress to the family member especially mother. As we address the multiple challenges such as handling of their ill babies, dealing with people and medical staff in NICU, this cause physiological as well as the psychological changes in mother.

Objective: This study aims to determine maternal stress as perceived by the mother whose neonates admitted in the neonatal intensive care unit (NICU) step down nursery (ICN). And to find out the association between the selected sociodemographic variables with the level of the stress.

Methods: Non probability purposive sampling technique was used, in GMCH -32 Chandigarh, with 70 mothers assess the stress level by using Standardize scale PSS:NICU (parental stress scale: neonatal intensive care unit) of 26 questions.

Results: Out of 70 subjects in NICU, 57.1% mother had severe level of stress and 42.8% mother had moderate level of stress, Whereas in ICN, 65.7% had moderate level of stress and 31.4% had severe level of stress and only 2.8% mother was having mild level of stress. Findings of the study shows that the mother whose neonates admitted in NICU had severe level of stress. In present study it shows that the mother belongs to the age group 24-28 year had severe level of stress 54.3% in NICU as compare to ICN mother stress level is 51.4% age of mother is also affecting the stress.

Conclusion: The study findings reveal that mother of neonates admitted in NICU had severe level of stress when compare to mother of neonates admitted in Step down nursery (ICN). The further intervention study is planned to decreases the stress level among the mother.

Keywords: stress, neonates

Introduction

Stress is the non-specific response of the body to any kind of demand made upon it [1]. Pressure turns into stress when you feel unable to cope. People have different ways of reacting to stress, so a situation that feels stressful to one person may in fact be motivating to another. Stress affects the behaviour and emotion of the individual. Sleeping problems, sweating, loss of appetite and difficulty concentrating are common sign of stress. Stress includes tension, anxiety, worry and pressure. It is an accepted fact that everyone is having stress in life and everyone is having their own method to deal with that situation [2]. Stress is of two type positive or negative. The stressor can be physical, emotional, intellectual, spiritual and social [3]. According to World Health Organization (WHO), in maternal mental health and child health and development in low middle income countries in 2008 prevalence of maternal mental problem such as depression, stress, anxiety etc in low- and middle-income countries are in the range of (10-41%) India [4]. Several studies also shows that maternal depression and stress is also associated with early cessation of breastfeeding with its well-known range of negative effects on both the family and their infants or new-born [5-7].

Material and method

Research approach

A quantitative approach and descriptive design was used in this study to assess stress among mothers of neonates admitted in NICU, ICN (intermediate care nursery) unit of GMCH-32 Chandigarh. Non-probability purposive sampling technique was used, under this every subject meeting the criteria of inclusion was selected until the required sample size was achieved. The inclusion criteria were the mothers who can read and understand English, Hindi, Punjabi and were willing to participate in the study. The exclusion criteria were the mothers who were suffering from mental illness, were less than 18 years of age, were Critically ill, unconscious or semi-conscious mothers.

Development and description of tool

Tools and techniques

After an extensive review of literature and discussion with experts, standardized tool was selected –which is divided into two parts as followed. The content validity of tool was done by obtaining expert opinions. All the experts were from the field of nursing. Their valuable suggestions were obtained and

incorporated into final tool. Standardized scale PSS-NICU was used to assess stress among mothers of preterm neonates admitted in NICU, ICN (intermediate care nursery) unit of GMCH-32, Chandigarh. Cronbach’s alpha method was used to find out the reliability of tool. Tool was administered on 7 subjects. Findings were compared.

- A little stressful
- Moderately stressful
- Very stressful
- Extremely stressful

Technique

The questioning (self-report) technique (questionnaire) was used.

Part A

Section 1

Sociodemographic data that include age of mother, religion, family type, literacy status of mother, occupation of mother, monthly income of family, parity, previous neonatal death, mode of delivery.

Section 2

Age of newborn, gender of newborn, weight of newborn, gestational age of newborn, length of stay of newborn, reason for admission of newborn, readmission of same neonate after discharge, is your any child has been admitted to hospital previously.

Part B

Standardize scale PSS -NICU (parental stress scale: neonatal intensive care unit) of 26 questions.

Scoring

- Not at all stressful the experience did not because you feel upset, tense or anxious.

Table 1

S. No.	Level of stress	Score
1.	Mild	1-44
2.	Moderate	45-88
3.	Sever	89-130

Plan for data analysis

The data was analyzed by using both descriptive and interferential statistics.

Sociodemographic data was analysed using frequencies and percentage. Stress was calculated by using frequencies, percentage, mean, standard deviations.

Mean stress level was calculated and compared. correlation coefficient between stress levels in different groups will be calculated and tested for their significance.

Results

The level of stress experienced by the mother in NICU and ICN, in NICU more than half mother experienced severe (57.1%) level of stress. 42.8% mother had moderate level of stress and no one had mild level of stress. whereas in ICN (step-down nursery) major part of mothers (65.7%) had moderate level of stress followed by sever level of stress 31.4% and only 1 mother had mild level of stress. On comparison, mothers of neonates admitted in neonatal intensive care unit had higher level of stress when compared to the mothers of neonates admitted in step-down nursery.

Table 2

Level of stress	NICU (neonatal intensive care unit)		ICN (step-down nursery)	
	Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)
Mild	00	00	01	2.8
Moderate	15	42.8	23	65.7
Severe	20	57.1	11	31.4

The association between the selected sociodemographic variables with the level of the stress

The chi-square test revealed that in NICU monthly income of the family (*p* value – 0.022 *df* at-03) is significantly associated with the level of stress. There was no significant association (value of *p*-<0.05) between age of mother, religion, family type, literacy status, occupation of mother, her parity, previous neonatal death and mode of delivery. Where in step-down nursery (ICN) level of stress and age of the mother (*p*-0.021 *df* at 06) and family type (0.002) are significantly associated with each other. There is no significant association (value of *p*-<0.05) between religion, literacy status of mother, occupation of mother, monthly income of family, parity, previous neonatal

death and mode of delivery. In NICU (neonatal intensive care unit) age of the newborn is significantly associated with the level of stress (*p*-0.044 *df* at-04) and there is no significant association (*p* value significant at ≤0.05) between gender of newborn, weight of the newborn, gestational age of the baby, length of hospital stays, reason for admission, readmission of the same baby, and previous hospitalization the newborn. In ICN (step-down nursery) level of stress of mother is not significantly associated with the neonates’ sociodemographic variables (such as age of the newborn, gender of newborn, weight of the newborn, gestational age of the baby, length of hospital stays, reason for admission, readmission of the same baby, and previous hospitalization the new-born).

Table 3

Socio-demographic variables	Neonatal intensive care unit (NICU)			Step-down nursey (ICN)		
	Mean	df	<i>p</i> value	Mean	df	<i>p</i> value
Age of mother	2.14	03	.862 NS	2.46	06	.021*S
Religion	1.08	02	0.72NS	1.80	04	.598NS

Family type	1.69	01	.766NS	1.69	4	.002*S
Literacy status of mother	3.20	04	.111NS	3.11	8	.463NS
Occupation of mother	2.09	02	.338NS	2.11	6	.463NS
Monthly income of family	2.20	03	.022*S	2.17	6	.900NS
Parity	1.57	01	.486NS	1.57	2	.265NS
Previous neonatal death	1.69	01	.298NS	1.69	2	.123NS
Mode of delivery	1.54	04	.268NS	1.54	2	.156NS
Age of newborn (in days)	1.91	04	0.044*S	1.80	06	.416NS
Gender of newborn	1.29	01	0.127NS	1.40	02	.656NS
Weight of the baby	1.14	03	.519NS	1.83	06	.190NS
Gestational age of the baby (in weeks)	3.11	04	.106NS	3.40	08	.315NS
Length of stay in the hospital (in days)	1.60	01	.067NS	1.31	02	.271NS
Reason for admission	2.89	03	.242NS	2.94	06	.820NS
Readmission of same neonate after discharge	1.91	01	.551NS	1.94	02	.575NS
Is your child had been admitted to the hospital previously	1.89	01	.083NS	1.91	02	.384NS

p value significant at ≤ 0.05

Discussion

This chapter focus on the finding of the present study with the studies conducted in past. The present study finding had been discussed in accordance with the objective of the study. The aim of this study was to assess the stress level among mothers of neonates admitted in Neonatal Intensive Care Unit (NICU) and step down ICU- intermediate care nursery(ICN) unit of GMCH-32 Chandigarh. Moreover, it gives the brief knowledge of summary of the study done, conclusion from the findings, implication for the further research and recommendations.

The objective of the study is to assess and compare stress level among mother of neonate admitted in neonatal intensive care unit (NICU) or Step-down nursery (ICN). and to find out the association between the selected sociodemographic variables with the level of the stress.

Out of 70 subjects in NICU, 57.1% mother had severe level of stress and 42.8% mother had moderate level of stress. Whereas in ICN, 65.7% had moderate level of stress and 31.4% had severe level of stress and only 2.8% mother was having mild level of stress. Finding of the study shows that the mother whose neonates admitted in NICU had severe level of stress.

In present study it shows that the mother belongs to the age group 24-28 year had severe level of stress 54.3% in NICU as compare to ICN mother stress level is 51.4%. Age of mother is also affecting the stress.

Conclusion

This study concludes that:

Total 70 samples were taken and out of which, In NICU, 57.1% mother had severe level of stress and 42.8% mother had moderate level of stress. Whereas in ICN, 65.7% had moderate level of stress and 31.4% had severe level of stress and only 2.8% mother was having mild level of stress. Finding shows that the mother whose neonates admitted in NICU had severe level of stress.

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