

A Study to Assess the Stress and Coping Strategies among Mothers of Neonates Admitted in a Selected Neonatal Intensive Care Unit, Kanyakumari District

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Abstract: *The aim of this study is to correlate stress with coping measures adopted by mothers of neonates admitted to a neonatal intensive care unit. A descriptive correlative design was employed by using a purposive sampling technique, data were collected from 50 mothers, of neonates, and data analysis was done by descriptive and inferential statistics, the results of this study were among 50 mothers, 34% (17) had moderate level of stress, 28% (14) had extremely severe stress, 24% (12) had severe stress, 10% (5) had mild stress and only 4% (2) had no stress. Among 50 mothers 56% (28) had effective coping, 30% (15) had most effective coping, and 14% (7) had not effective coping, there is no correlation between stress and coping strategies ($r=0.134$).*

Keywords: Stress, Coping strategies, Mothers, Neonates, Neonatal Intensive care unit.

1. Introduction

Stress is a problem that is widely misunderstood. It may affect any parent who has endured the stress of having a baby in the neonatal intensive care unit. Although it can be a common problem during such a stressful time, it may be overlooked by healthcare staff, family, and friends and by parents themselves—the effects of depression range from mild to severe. Many often feel ashamed of their low mood and hide it from others. Yet, this approach may lead to worse depression that can have a lost in effect not only on the individuals but also on the family members.

In India, more than 10 lakh neonatal deaths occur within one month of life and that is more in rural areas than compared to urban areas. 30 - 40% of neonates are low - birth babies whose birth weight is less than 2.5kg (Padmavathy R and A. Padmaja, (2011).

The government of India has set a target of reducing the infant mortality rate from 64 - 30 per live birth by the year 2010, which can only be possible if neonatal mortality is reduced from 44 - 20 in this period. However, there has been only 15% in neonate mortality during 1990 (plateau, 2010)

The majority of babies get admitted to the neonatal intensive care unit with the diagnosis of respiratory distress syndrome, jaundice, meconium aspiration, and preterm. Due to advanced neonatal technologies and life - saving measures today admissions in neonatal intensive care units are increasing and it creates a favourable environment for most of the sick and vulnerable neonates to survive (Kerry Grens, 2010)

On entering a neonatal intensive care unit, parents see their little one surrounded by sophisticated monitors, lots of tubes and varying sounds and find themselves helpless in such a situation to care for their newborn, which seems to be very fragile. A parent perceives fear of death, uncertain outcomes, emotional turmoil, financial concerns, role changes, and an unfamiliar hospital environment, which are a few sources of anxiety.

Researchers who had their clinical posting in NICU had come across the mothers whose babies were admitted to NICU for close monitoring. They found that the mothers had experienced severe stress. Hence the researcher was interested in assessing the stress and coping strategies of mothers of neonates admitted to the neonatal intensive care unit.

Statement of the Problem

a study to assess the level of stress and coping strategies among mothers of neonates admitted in a selected neonatal intensive care unit.

Objectives of the Study

- 1) To assess the level of stress among mothers of neonates admitted in a selected neonatal intensive care unit.
- 2) To assess the various coping strategies adopted by the mothers of neonates admitted to a selected neonatal intensive care

Hypotheses

- 1) There is a significant relationship between stress and coping measures among the mothers of neonates admitted to a selected neonatal intensive care unit.
- 2) There is a significant association between the level of stress among mothers of neonates admitted to a selected neonatal intensive care unit and the selected demographic variables.

2. Methodology

A descriptive correlative design was used in this study. The samples are 50 mothers of neonates admitted to a selected neonatal intensive care unit by purposive sampling technique. The study tool consists of three sections as follows

Section A:

The content included in the section are profile of the neonatal mother such as education, occupation, number of babies, the weight of the neonates, diagnosis of neonates and duration of staying in the NICU.

Section B:

Stress scale: this is a standardized stress scale that describes various levels of stress commonly experienced by mothers of babies admitted to NICU. It contains 46 questions. It is measured with the help of a points Likert scale, each item has six alternatives not applicable, not at all stressful, little stressful, moderately stressful, severely stressful, and extremely stressful. it includes various types of stress in NICU related to,

- Sights and sounds
- Baby looks and behaves
- Parental role alteration
- Staff behaviour and communication

Stress scoring:

- No stress (0 - 46)
- Mild stress (47 - 92)
- Moderate stress (93 - 138)
- Severe stress (139 - 184)
- Extremely severe stress (185 - 230)

Section C:

This is a standardized scale developed by Lazarus (1998). It consists of 42 questions related to various coping strategies. For each question score is 1. The total score is 42. Every correct answer will be given a score of 1 and for the wrong answer score of 0.

Coping scoring:

- Not effective coping (0 - 14)
- Effective coping (15 - 29)
- Most effective coping (30 - 43)

After obtaining initial permission from the hospital authority and the NICU staff, oral consent was obtained from the mothers of neonates admitted to the neonatal intensive care unit. Data were collected from 50 mothers of neonates admitted to the neonatal intensive care unit for one week. Assurance was given regarding the confidentiality of data collection.

Data analysis was done by using descriptive and inferential statistics.

3. Findings

Table 1: Frequency and Percentage Distribution of Demographic Variables among Mothers of Neonates, N=50

S. NO	Classification	Frequency (%)
1	AGE OF MOTHER	
	15 - 20 YEARS	4 (8%)
	21 - 25 YEARS	21 (42%)
	26 - 30 YEARS	23 (46%)
	31 - 35 YEARS	2 (4%)
2	EDUCATION OF MOTHER	
	Primary	2 (4%)
	Secondary	10 (20%)
	High school	14 (28%)
	Higher Secondary	10 (20%)
	Degree	14 (28%)
3	Occupation	
	Housewife	38 (76%)
	Moderate worker	6 (12%)
	Severe worker	6 (12%)

	NUMBER OF CHILDREN	
4	1	34 (68%)
	2	15 (30)
	>3	1 (2%)
5	SEX OF THE BABY	
	Male	26 (52%)
	Female	24 (48%)
6	WEIGHT OF THE BABY	
	0 - 2kg	15 (30%)
	2 - 3kg	25 (50%)
	>3kg	10 (20%)
7	DURATION OF STAY IN NICU	
	1 - 5 days	46 (92%)
	6 - 10days	2 (4%)
	>10days	2 (4%)

Data presented in the above table reveals that a majority of mothers 23 (46%) were between the age group of 26 - 30 years, most of the mothers were 14 (28%) well educated, 38 (76%) were housewives, those who have one child had experienced 34 (68%) stress, findings reveal that duration of staying NICU about 1 - 5 days had extremely severe stress and the mothers who had male babies were showed moderate stress.

Table 2: Level of Stress Experienced by Mothers of Neonates in NICU, N=50

S. No	Level Of Stress	Frequency
1	Sights and sounds:	
	No stress (0 - 5)	1 (2%)
	Mild stress (6 - 10)	9 (18%)
	Moderate stress (11 - 15)	17 (34%)
	Severe stress (16 - 20)	20 (40%)
	Extremely severe stress (21 - 25)	3 (6%)
2	Baby looks and behaves:	
	No stress (0 - 19)	1 (2%)
	Mild stress (20 - 38)	1 (2%)
	Moderate stress (39 - 57)	8 (16%)
	Severe stress (58 - 76)	19 (38%)
	Extremely severe stress (77 - 95)	21 (42%)
3	Parental role alteration:	
	No stress (0 - 10)	0 (0%)
	Mild stress (11 - 20)	4 (8%)
	Moderate stress (21 - 30)	13 (26%)
	Severe stress (31 - 40)	19 (38%)
	Extremely severe stress (41 - 50)	14 (28%)
4	Staff behaviors and communication:	
	No stress (0 - 11)	2 (4%)
	Mild stress (12 - 22)	5 (10%)
	Moderate stress (22 - 33)	17 (34%)
	Sever stress (34 - 44)	12 (24%)
	Extremely severe stress (45 - 55)	14 (28%)

Mothers of babies who were diagnosed with neonatal jaundice were assessed. Among them it was found that 17 (34%) experienced mild stress in regards to sights and sounds in NICU, 20 (40%) experienced moderate stress, 21 (42%) had extremely severe stress regarding baby looks and behaviour, 17 (34%) of mothers had moderate stress in response to inappropriate staff behaviour and communication.28% of mothers had extremely severe stress related to staff behaviour and communication.

Table 3: Overall Stress Experienced by the Mothers of Neonates admitted to the Neonatal Intensive Care Unit, N=50

S. No	Level of Stress	Frequency of Sample (%)
1.	No stress (0 - 46)	0 (0%)
2.	Mild stress (47 - 92)	2 (4%)
3.	Moderate stress (93 - 138)	14 (28%)
4.	Severe stress (139 - 184)	25 (50%)
5	Extremely severe stress (185 - 230)	9 (18%)

The above table explains the overall stress experienced by the mothers of neonates admitted to the neonatal intensive care unit. Among them, 9 (18%) of mothers had extremely severe stress, 25 (50%) of mothers experienced severe stress, 14 (28%) of mothers had moderate stress, 2 (4%) of mothers had mild stress and none of them were found with stress.

Table 4: Level of Coping Strategies adopted by the mothers of Neonates admitted to NICU, N=50

S. No	Level of Coping	Frequency of Sample
1.	Not effective coping (0 - 14)	7 (14%)
2.	Effective coping (15 - 29)	28 (56%)
3.	Most effective (30 - 43)	15 (30%)

The above table explains the level of coping strategies adopted by the mothers of neonates admitted to the NICU. In that 7 (14%) of mothers had no effective coping skills, 28 (56%) of mothers had effective coping skills and 15 (30%) of mothers had most effective coping skills.

Table 5: Correlation of Stress and Coping Strategies Used by Mothers of Neonates admitted to NICU

S. No	Influence of Stress on Coping strategies	R - value
1	Coping strategies	- 0.134

The correlation coefficient was found to be - 0.134, this shows that there is a significant negative relationship between the stress of the mothers and coping strategies.

Table 6: Association between the Selected Demographic Variables and Coping Strategies, N=50

S. No	Demographic variables	Calculated value	Table value of	P value
1	Age of mother	5.43	5.348	0.50
2	Education	2.98	2.733	0.95
3	Occupation	5.215	3.357	0.50
4	No of children	5.82	3.357	0.50
5	Sex of baby	0.040	0.0201	0.99
6	Weight of baby	1.7008	0.711	0.95
7	Duration of stay in NICU	15.376	13.277	0.01*
8	Diagnosis of baby	5.18	4.66	0.99

A chi - square analysis was done to find the association between demographic variables and the coping of the mothers. It was found that there is an association between the duration of stay in NICU and coping strategies (15.376, $p < 0.01$). Longer duration of stay in the NICU the coping strategies of the mothers were better than the other mothers.

4. Limitations

- The stress and coping strategies adopted by the mothers were assessed at one time.

- Data collection was limited to one week.

5. Recommendation

- Parents should be oriented to the NICU environment where their baby is admitted.
- Parents should be allowed to visit their babies.
- Protocol should be developed to explain to the parents about the neonate's condition.

6. Nursing Implications

Nursing Practice

- The findings can guide nurses in providing individual care, acknowledging the emotional stress mothers experience and addressing their specific coping needs.
- Based on the study, NICUs can implement structured psychosocial support programs, including counselling, peer support groups, or stress - relief activities.
- Training healthcare providers to communicate empathetically and provide timely updates about the neonate's condition can reduce uncertainty and anxiety for mothers.
- Encouraging active participation of mothers in their neonate's care can boost their confidence and enhance coping mechanisms, reducing feelings of helplessness.

Nursing Education

- The study outcomes can inform training curricula, emphasizing the importance of addressing parental stress in NICU settings.
- Educating parents about NICU procedures and what to expect can reduce stress by preparing them for the environment and challenges.

Nursing Research

- The study could pave the way for further research into intervention strategies that are most effective in alleviating stress and enhancing coping.
- Future studies can examine the long - term psychological impact on mothers and their coping outcomes post - NICU discharge.

Nursing Administration

- Organize training sessions for nursing staff on recognising signs of maternal stress and providing appropriate interventions.
- Incorporate training on empathetic communication skills and stress management techniques for healthcare providers to better support mothers.

7. Recommendation

- Ensure timely and clear updates about the neonate's condition to reduce uncertainty and anxiety among mothers.
- Provide written and verbal explanations of NICU procedures and care plans.
- Create opportunities for maternal bonding with the neonate within the constraints of the NICU environment.

8. Conclusion

Mothers often feel more stressed, especially in the first few weeks, anxiety tends to be greatest immediately after birth, at times when the baby's medical status is unstable. The nurse should work out a plan for the educational programme, based on stress levels, this will help the mothers.

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