

## A Study to Assess the Level of Stress and Coping Strategies among Mothers of Neonates Admitted in Neonatal Intensive Care Unit at S.V.R.R.G.G.H, Tirupati

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### Abstract

*Background:* Stress is a common disorder occurs worldwide in everyone's life. It affects the mind and the body. Mothers of children in the NICU experience high levels of stress and that there are interventions which can decrease the stress level of the parents and also can affect their ability to breast feed their infant. Hospitalization of a child is the break in the unity of the family. Emotional reactions of each member of the family must be considered to help them to adjust with stress due to the hospital situation and illness. Parents whose child has been admitted to the hospital feel not only separation from their children but also feeling of inadequacy as others provide care for other children. They feel anxiety, anger, fear, disappointment, self-blame and possible guilty feeling due to lack of confidence and competence for caring the child in illness and wellness. *Objectives:* 1. To identify the level of stress among mothers when their neonates are admitted in NICU. 2. To identify the coping strategies used by mothers in NICU. 3. To correlate the stress with coping strategies used by mothers in NICU. 4. To determine the association of stress level and coping strategies with the selected demographic variables. *Method:* A descriptive research design was used to assess the level of stress and coping strategies among mothers of neonates admitted in NICU at S.V.R.R.G.G.H, Tirupati. A total of 100 NICU mothers were selected by purposive sampling technique. Tool used for conducting study was Parental Stressor Scale and Coping Health Inventory for parents to assess the level of stress and coping strategies. Data were analyzed with the help of descriptive and inferential statistics. *Results:* The major findings of the study revealed that among 100 mothers 27 (27%) mothers had mild stress, 49(49%) mothers had moderate stress and 24(24%) mothers had severe stress. Among 100 mothers 30(30%) mothers had poor coping, 47(47%) mothers had moderate coping and 23(23%) mothers had good coping. *Conclusion:* The amount of stress that the mothers of neonates experienced was the result of NICU admission. The nurses in the unit should work out a plan for educational programmes based on stress level that will help the mothers to gain knowledge on coping strategies.

**Keywords:** Intensive Care Unit; Mothers; Stress; Coping Strategies.

### Introduction

Stress is the non-specific response of the body to

any demand regardless of its nature<sup>1</sup>. The birth of a baby is a wonderful yet very complex process. Many physical and emotional changes occur for mother and baby. Some newborn babies will require care in

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a NICU, and giving birth to a sick or premature baby can be quite unexpected for any parent. Mother's find themselves in a strange environment, surrounded by high-tech equipment and a multitude of people caring for their baby. Mother wants to comfort her baby, but she may not know what to do. These feelings of powerlessness are common in the NICU. Unfamiliar sights, sounds, and equipment in the NICU can be overwhelming [2].

The neonatal deaths account for 56 percent of Under-5 deaths in India which is much higher than the global average of 44 percent. The progress in reduction of neonatal mortality has been slow [3].

Each year, approximately three million children die in the first 28 days after birth, predominantly due to complications of preterm birth, asphyxia and sepsis [4-6]. The three major causes of neonatal deaths worldwide are infections (36%), which includes (sepsis/pneumonia, tetanus and diarrhea), pre-term (28%), and birth asphyxia (23%). There is some variation between countries depending on their care configurations<sup>7</sup>.

In India every year, 1.34 million children die before completing five years, of which 7,48,000 die within the first month of their life. "This means more than 2,000 newborn die each day in India Andhra Pradesh has shown 17 percent decline in the Under-5 mortality between 2009 and 2012 and Rajasthan has shown 20 percent decline during the same period [3].

This unexpected and frightening experience often leaves parents feeling isolated and anxious. Some parents may have significantly higher levels of depressive and anxiety symptoms, while others may avoid hospitals or other situations that may bring up distressing memories [8].

Ultimately, the emotional well-being of mothers may influence the integrity of maternal-infant attachment, which in turn can have a substantial impact on the infant's emotional, social and cognitive development.

In light of this, it is important to identify factors associated with increased maternal stress in order to develop effective interventions for improving mental health in NICU mothers [9].

## Methodology

After obtaining permission from the HOD, Dept. of Pediatrics, S.V.R.R.G.G.H, Tirupati, the subjects were approached individually with the permission of authorities. The data was collected with informed consent. The sample was selected by non-probability purposive sampling technique. Total 100 mothers of neonates admitted in NICU were given self-administered questionnaire.

### Inclusion Criteria

1. Mothers of neonates admitted in NICU.
2. Mothers who are able to visit NICU.
3. Mothers who are available at the time of data collection.

## Results

Association between level of stress and coping strategies among mothers of neonates admitted in NICU.

Stress mean value was 121.86 and coping strategies was 93.49. Standard deviation of stress was 22.09 and coping strategies was 12.10. Coefficient correlation of stress and coping strategies was -0.39 and is significant at 0.01 level. Hence  $H_1$  is accepted.

Association between demographic variables with level of stress and coping strategies among mothers of neonates admitted in NICU.

**Table 1:** Distribution of scores of mothers according to their stress level (n=100)

		Level of Stress					
		Mild Stress		Moderate Stress		Severe Stress	
No	%	No	%	No	%	No	%
27	27%	49	49%	24	24%		

**Table 2:** Distribution of mothers according to their coping strategies (n=100)

		Coping Strategies					
		Poor Coping		Moderate Coping		Good Coping	
No	%	No	%	No	%	No	%
30	30%	47	47%	23	23%		

**Table 3:** Relationship between stress level and coping strategies among mothers of neonates in neonatal intensive care unit.

S. No	Variable	Mean	Standard deviation	Correlation coefficient	P value
1	Stress	121.86	22.09		
2	Coping strategies	93.49	12.10	-0.39**	Significant at 0.01 level. (P<0.01)

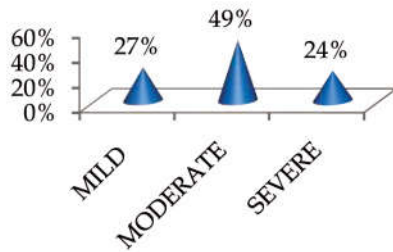


Fig. 1: Percentage Distribution of Level of stress among mothers of neonates admitted in NICU

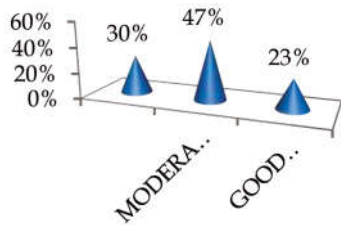


Fig. 2: Percentage Distribution of Level of coping strategies among mothers of neonates admitted in NICU

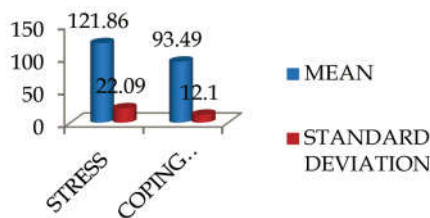


Fig. 3: Comparison of mean and standard deviation between stress and coping strategies

The researcher revealed that there was a significant association between the level of stress with Educational Status, Occupation, Residence, Number of Children and Admission Condition at 0.01 level and level of Coping Strategies is significant with Residence at 0.05 level. Hence  $H_2$  is accepted.

## Discussion

Parents of children with health problems experience higher levels of situational stress than parents of healthy children. New environment, financial constraints and parental role alteration are some of the stressors experienced by the parents during the Child's hospitalization [10].

The first objective of the study was to identify the level of stress among mothers of neonates admitted in neonatal intensive care unit. Accordingly, in this study, 24 (24%) mothers had severe stress, 49(49%) mothers had moderate stress and remaining 27(27%)

mothers were with mild stress.

The results of the present study were supported by the earlier study carried out by Anna Alkozei, Erin Mcmohan and Amir Lahav (2014) to examine whether particular maternal and infant factors can identify mothers at risk for increased stress upon admission to the NICU. The results suggested that an alteration in parental role was the most significant source of stress among NICU mothers [11].

The second objective of the study was to identify the coping strategies among mothers of neonates admitted in neonatal intensive care unit. In this study it was found that 47 (47%) mothers had moderate coping, 23 (23%) mothers had good coping and 30 (30%) mothers had poor coping.

The results of the present study were supported by the earlier study carried out by Richard J Shaw et al (2013) conducted a study on parental coping in NICU. Fifty six mothers of premature infants were studied to reduce the posttraumatic stress disorder. Dysfunctional coping as measured by the Brief COPE was positively associated with elevated risk of PTSD. Results suggested that dysfunctional coping is an important issue to consider in the development of PTSD in parents of premature infants [12].

The third objective of the study was to correlate stress with coping among mothers of neonates admitted in neonatal intensive care unit. The present study found that there is a significant relationship between stress and coping at  $p < 0.01$  level. It is evident that when stress is high among mothers significantly they adapt various types of coping strategies.

The results of the present study were supported by the earlier study carried out by

Binu Margaret E, Sheela Shetty, Leslie Edward Lewis, Ramesh Bhat Y (2014) conducted a study on maternal anxiety and family support among mothers of neonates admitted in neonatal intensive care unit. Maternal state anxiety ( $p = -0.655, p < 0.05$ ) and maternal trait anxiety ( $p = -0.638, p < 0.05$ ) with family support was negatively correlated and it is inferred that as family support increases there will be decrease in the anxiety level of mothers. Mothers exhibit high levels of anxiety during their neonate's hospitalization. Early identification of anxiety level has implications for support of mothers during hospitalization of their newborns [13].

The fourth objective of the study was to determine the association of stress levels and coping strategies with the selected demographic variables. The present study found that there is a significant association between the stress levels among mothers with selected demographic variables such as educational status

of mother, occupation of mother, residence, number of children and admission condition ( $p < 0.01$ ). There is a significant association between the coping strategies among mothers with selected demographic variable i.e. residence ( $p < 0.05$ ).

The results of the present study were supported by the earlier study carried out by

Priscille Musabirema, Petra Brysiewicz, Jennifer Chipps (2015) on Parents perceptions of stress in a neonatal intensive care unit in Rwanda. The current study found that parents' age, educational level, occupation, and infant birth weight were associated with parental stress ( $p < 0.004$ ). Identification of these factors could enable health professionals to facilitate parents adjusting and coping [14].

### Conclusion

The study findings revealed that out of 100 mothers majority 49(49%) mothers had moderate stress, 27(27%) mothers were with mild stress and 24(24%) mothers had severe stress. The nurses in the unit should work out a plan for educational programmes based on stress level that will help the mothers to gain knowledge on coping strategies. A wide spread network should be provided, which should focus on relaxation techniques among mothers of neonates admitted in neonatal intensive care unit. The study will help the health care personnel to conduct counseling sessions for mothers on stress reduction techniques.

### Recommendations

- Experimental study can be conducted with the help of planned health education programme on stress and coping strategies among mothers of neonates admitted in neonatal intensive care unit.
- A comparative study can be conducted to find out the relationship between demographic variables and stress and coping strategies among mothers of neonates admitted in neonatal intensive care unit.
- The study can be replicated with a larger population.
- Similar studies can be conducted on a large scale.
- Stress management programmes may be

organized for mothers who admitted their neonates in neonatal intensive care unit.

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