

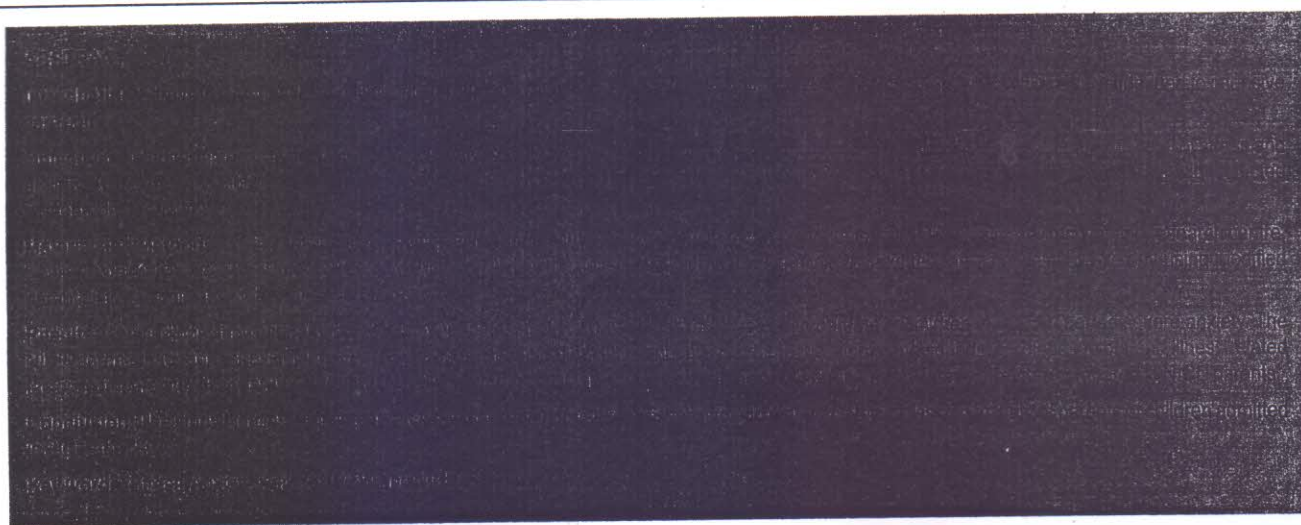
# Comparison of Stress and Anxiety of Parents of children admitted in NICU and PICU

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## INTRODUCTION

Hospitalization is a stressful situation, which presents a variety of real and imagined threats for both patients and families. Studies have shown that stress and anxiety arise in family members when children are admitted to intensive care unit. Parents have an important role in the promotion of their children's health, being the primary agents involved in direct care, providing access to health services and modelling attitudes and behaviours that influence children's wellbeing. Parents' psychosocial functioning is important for children's physical and mental health outcomes, and their attitudes during a child's illness, especially during hospitalization, may deeply influence the child's adherence to the care and impact of the disease<sup>1-5</sup>.

Stress is a non-specific response of the body to any excessive environmental request. The reaction to stress is not directly related to the exposure to stressors but is mediated by the individual emotional response. Stress is, in fact, a process embracing several components including stressors, defined as events that pose a challenge to the subject, psychosocial mediators, constructs that enable the subject to evaluate the nature of the situation, and the stress response, typically a measure of the emotional reaction elicited in response to the stressor. Moreover, a stress response may often include anxiety as an incorporate

component. If stress is understood as a critical event, anxiety follows this event (e.g., in the form of a post-traumatic disorder); stress is defined as a response to such event, anxiety is part of the response pattern. Whereas if stress is defined as a transactional encounter between a person and a situation, anxiety is an accompanying emotion of stressful encounters<sup>6</sup>. Assessment of stress and anxiety among parents will help to plan intervention and coping strategies to resolve stress and anxiety and improve the care of child in future.

## Objectives of the study

1. To determine the level of stress and anxiety experienced by parents of children admitted to PICU and NICU.
2. To compare the level of stress and anxiety experienced by parents of children admitted to PICU and NICU.
3. To find out the association between the level of stress and anxiety experienced by parents of children admitted to PICU and NICU with their selected demographic variables.

## METHODOLOGY

A descriptive comparative survey design was used for the study. The study was conducted at NICU and PICU of Sri R.L. Jalappa Hospital & Research centre, Tamaka, Kolar. The population was parents of children admitted in PICU and NICU. A total of 60 parents, 30 from PICU and 30 from NICU were included as participants. Purposive sampling technique was adopted to select the parents meeting the inclusion criteria; (parents who c



Variables	Parents of children in NICU		Parents of children in PICU		t value	p value
	M	SD	M	SD		
Stress	77.4	7.45	76.33	5.92	0.62	0.54
Anxiety	57.97	5.49	59.27	8.721	0.69	0.492

Area	NICU		PICU		t value	p value
	Mean	SD	Mean	SD		
Parental role alteration	14.03	2.953	13.77	1.906	0.454	0.653
Child appearance/ behavior	19.63	2.871	19.37	1.938	0.460	0.649
Sights and sounds	17.67	2.721	16.63	2.141	1.574	0.126
Social factors	7.93	2.180	8.90	1.494	1.689	0.102
Religious factor	5.57	1.194	4.97	1.450	1.874	0.071
Financial factors in NICU	6.37	1.586	6.60	1.404	0.600	0.553
Illness related factor in NICU	6.20	1.095	6.10	0.845	0.451	0.55

stress and anxiety in both NICU and PICU. The result of the present study showed that NICU parents were having more stress in the areas of parental role alteration, child appearance/behavior, sights and sounds, religious factors and illness related factors compared to PICU parents. Whereas the PICU parents were having more stress in the areas of social factors and financial factors compared to NICU parents. This study finding is supported by another study<sup>9</sup> where parents in both units experienced the most stress for alteration in their parenting role and in their infant's behavior and appearance. Also there was significant difference with one subscale, the assistance with parenting role higher for PICU parents than for NICU parents. The subscale analysis of another finding<sup>9</sup> showed that parents of intubated children were having more stress. The present study showed that NICU parents are not having stress in areas of social factors and financial factors. As the financial support was provided by Government through Balasanjeevini scheme it was more helpful to NICU parents.

There was no significant difference between demographic variables with stress and anxiety, but other studies<sup>9-10</sup> has proved a significant association with demographic variables with stress and anxiety.

## CONCLUSION

The findings of the study clearly showed that the parents of children admitted in NICU and PICU had severe stress and anxiety. Every parent had the eagerness to have the clear explanation about their child condition during hospitalization. Nurses are the primary caregivers and educator hence adequate information, support and counselling are essential to manage the stress and anxiety of children hospitalised in critical care units.

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understand and speak English or Kannada and who stayed with their children in intensive care unit for at least 48 hours). The data collection tool included a questionnaire to collect the sample characteristics such as age of the child, gender, ordinal position of the child in the family, onset of disease, previous exposure to PICU and NICU, age of the parents, educational status, occupation, income, type of family, marital status and number of children. A Modified parental stress scale was used to assess the level of stress experienced by parents. It is a standardized scale<sup>7</sup>. It consists of stress items under 7 main areas such as parental role alteration, infant appearance / behavior, sights and sounds in PICU or NICU, social, religious, financial and illness related factors. Each of these items has 3 columns for responses (mild, moderate and severe) with a scale value of 1, 2 and 3. The total score were categorized as mild (34-51), <50%, moderate (52-77) <51-75%, severe (78-102) 76-100%. State trait anxiety inventory scale was used to assess the level of anxiety. The STAI is a standardized scale<sup>6</sup>. It consists of 20 items. The total score was grouped as mild (20-40) <50%, moderate- (41-60) <51-75%, severe (61-80) 76-100%. Prior to the data collection approval of the institute's ethical committee was obtained. The data was collected by interview method. Thirty minutes was spent with each parent for collecting the data. The collected data was analyzed by descriptive and inferential statistics.

## RESULTS

### I. Sociodemographic variables of parents and their children

The majority of the parents of neonates admitted in NICU (90%) were in the age group of 21-30 years, most of them had high school education (30%). Majority of parents were housewives (93.3%). The monthly family income of 53.7% parents was 5001-7000 rupees, majority of parents (83.3%) belonged to nuclear families, 76.7% had one child. More than half of their neonates (56.7%) were male, 83.3% were first born. All the babies were diagnosed with acute diseases.

Among the parents with children's admitted in PICU, 63.3% were in the age group of 21-30 years, 46.7% had high school education, 56.7% were housewives, 23.3% were employed with a private job, 53.3% parent's monthly income was 5001-7000 rupees, most belonged to nuclear families (73.3%) and 53.3% had two children.

Majority of children admitted in PICU (63.3%) were toddlers, 66.7% were male. Most of children (43.3%) were last born.

Majority of children (93.3%) were diagnosed with an acute disease and majority of children (73.3%) were not hospitalized previously.

### II. Assessment of stress and anxiety among parents of children admitted in NICU and PICU

The findings showed that among the parents of neonates admitted in NICU 43.3% had moderate stress and 56.7% parents had severe stress, 63.3% of moderate anxiety and 36.7% reported severe anxiety. With regard to the parents of children admitted in NICU, 50% each reported moderate stress, 50% severe stress, 40% parents had moderate level of anxiety, and 56.7% had severe level of anxiety. (Table 1)

### III. Comparison of stress and anxiety of parents of children admitted in NICU and PICU

The mean stress score of parents of children in NICU was 77.4 and the mean stress score of the parents of children in PICU was 76.33. The difference in the mean stress score was not significant ( $t=0.62, p=0.52$ ).

The mean anxiety score of parents of children in NICU was 57.97 and that of parents of children in PICU was 59.27. There was no significant difference between anxiety among parents of children admitted in NICU and PICU. (Table 2)

### IV. Area wise comparison of stress of parents of children admitted in NICU and PICU

There was no statistically significant difference between the mean stress scores of parents of children in NICU when compared to the parents of children in PICU in all the domains. (Table 3) Even though statistically not significant, but mean stress scores of parents of children admitted in NICU was more in the areas of parental role alteration, child appearance/ behavior, sights and sounds, religious factors and illness related factors compared to the parents of children admitted in PICU. Whereas the parents of children admitted in PICU had higher mean stress score in the areas of social factors and financial factors compared to the parents of children in NICU.

There was no significant difference between demographic variables of parents of children admitted in both NICU and PICU with stress and anxiety.

## DISCUSSION

The results of the present study showed severe stress and anxiety among both parents of children admitted in NICU and PICU. There are very limited studies related to parental experience of

Type of ICU	Level of Stress and Anxiety											
	Mild				Moderate				Severe			
	Stress		anxiety		Stress		Anxiety		Stress		Anxiety	
	F	%	F	%	F	%	F	%	F	%	F	%
NICU(n=30)	-	-	-	-	13	43.3	19	63.3	17	56.7	11	36.7
PICU(n=30)	-	-	1	3.3	15	50.0	12	40.0	15	50.0	17	56.7