

A study to Assess the Stress among the Parents of Neonates Admitted in Neonatal Intensive care unit of a tertiary care teaching hospital

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Abstract

Background: The admission of neonates to a Neonatal Intensive Care Unit is a stress full experience for parents.

Objectives: To assess the level of stress among the parents of neonates admitted in Neonatal Intensive care unit of a tertiary care teaching hospital and to determine the association between stress of parents of neonates with selected demographic variables.

Material and Methods: A descriptive survey design was adopted for the study. The sample were 60 parents of neonates admitted in NICU of R. L. Jalappa Hospital and Research Centre, Kolar. The study participants were selected by using convenient sampling technique. The data was collected by using Miles Parental Stress Scale.

Results: The overall findings of the study revealed that 76.6% of parents of neonates experienced moderate stress and 23.3% parents expressed mild stress. The stress levels among mothers were more compared to fathers. The level of stress was more in the area of parental role alteration and child appearance and behaviour compared to sights and sounds, illness related factors, financial factors, social factors, and religious factors. The findings also revealed that the stress was more among parents having male child. This study highlights the importance and need of assessing stress among the parents of neonates admitted in NICU.

Conclusion: The nurses are primary care givers and educators they should provide adequate information, motivation and counselling to reduce stress and improve coping strategies for parents of neonates admitted in NICU.

Key words: Stress, Parents, NICU and Neonates.

Introduction

Maternal-infant bonding has revealed that contact with infant is fundamentally important for the development of maternal self-confidence, security, sentimental emotional stability, and preparation for learning about infant's growth and development.¹ Confident parents notice infant's signs for specific needs and appropriately act on time to respond to any physiological and behavioural changes. Moreover, parents with emotional stability provide better infant nutrition and maternal care.²

Stress has been defined as psychological and physical strain fear or tension generated by physical, emotional, social, economic or occupational circumstances, events to experiences that are stimulus based definition, of stress. Stress has devastating effects on individual and societal levels and

it is important to understand its nature to assist development of interventions to mitigate this effect. One potentially stressful life events, which is the focus of this study, is the birth of an infant who is cared for in Neonatal Intensive Care Unit (NICU).³ The admission of neonates to neonatal intensive care unit is very stressful for parents.⁴

Feelings reported by the parents of the babies admitted in NICU include anxiety, fear, frustration, confusion, anger, uneasiness and depression. According to the National Institute of Health, chronic stress causes anxiety, depression and heart disease.^{5,6} A study conducted in the same setting also showed that the parents of neonates in NICU reported severe stress compared to parents of neonates in PICU.⁷ Both mother and father experience stress in NICU.^{8,9} Assessment of stress among parents will help to plan interventions and coping strategies to resolve stress and improve the care of child in future.

Objectives of the study

1. To assess the level of stress among the parents of neonates admitted in NICU.
2. To determine the association between stress of parents of neonates with selected demographic variables.

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Material and Methods

The descriptive survey research design was adopted to conduct the study. The study was conducted in NICU of RL Jalappa Hospital and Research Centre, Tamaka, Kolar. The sample size was 60 parents of the neonates admitted in NICU. Convenient sampling technique was adopted to select the samples. After obtaining ethical clearance and permission from concerned authorities and informed consent, data was collected.

Miles Parental Stress Scale, a modified parental stress scale was used to assess the level of stress experienced by parents. It is a standardized scale consists of stress items under 7 main areas such as parental role alteration, infant appearance/ behaviour, sights and sound in NICU, social, religious, financial and illness related factors.¹⁰ 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%. Information was also collected regarding the sample characteristics such as age of the child sex ordinal position of the child in family, onset of disease previous exposure to hospital previous exposure to NICU and age of the parents, educational status, occupation, income, type of the family, marital status and number of children by using a questionnaire. Data was analyzed by using descriptive and inferential statistics.

Results:

1. Socio-demographic variable

Majority of the neonates (95%) were between 5-10 days of age, 63.3% were males and 36.6% were females. 63.3% of the neonates were first born. Majority of the babies (73.3%) were between the birth weights of 1.6kg – 2.5kg.

Majority of parents (78.3%) belongs to the age group of 21- 30 years and (41.6%) were having middle school education. Majority (83.3%) of parents were labourers. Their majority family income (43.3%) is >Rs11,000 per month. Majority of the parents (68.3%) were primigravida, 81.6% belongs to nuclear family

2. Assessment of stress among parents of neonates admitted in NICU: The first objective was to assess the level of stress among parents of neonates admitted in NICU. Out of 60 parents, 76.6% of parents expressed moderate level of stress and 23.3% of parents expressed mild level of stress (Figure 1)

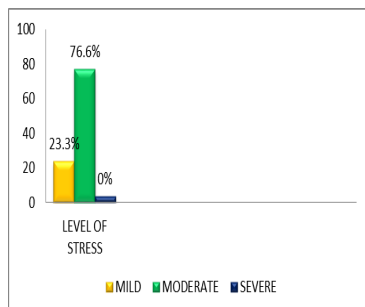


Figure 1 :Level of Stress Among Parents of Neonates Admitted in NICU.

Table :1 Level of stress among fathers and mothers of neonates admitted in NICU.

N=60

	Mild Stress		Moderate Stress		Severe Stress	
	F	%	F	%	F	%
Father (n=42)	1	2.38	41	97.6	0	0
Mother (n=18)	0	0	18	100	0	0

Table 1 shows that majority of the fathers (97.6%) were having moderate stress, remaining 2.38% of fathers were having mild stress whereas all (100%) mothers were having moderate stress

Table 2: Mean stress of fathers and mothers of neonates admitted in NICU

N=60

	MEAN	SD
FATHER	41.4	2.2
MOTHER	59.3	0.1
Total mean= 58.75		

Table 2 shows that among the parents of neonates, mothers were having more stress (59.3) compared to fathers (41.4). The total mean stress was 58.75.

Table: 3 Area Wise Comparison of Stress among fathers and mothers of Neonates admitted in NICU

N=60

Sl. No	Area	Father		Mother	
		Mean	%	Mean	%
1.	Parental Role Alteration	15	25	12.90	30.72
2.	Child Appearance / Behavior	12.66	30.14	13.33	22.2
3.	Sights & Sounds	2.92	7	13	22
4.	Social Factors	3.84	9.16	5	8.33
5.	Religious Factors	2.57	6.11	3	5
6.	Financial Factors in NICU	5.11	9	2.92	7
7.	Illness Related Factors In NICU	3.80	9.04	5	8.33

Table :2 Out of 60 parents, mothers were having more stress in the area of parental role alteration (30.72%) and child appearance and behaviour (22.2%) sights and sounds (22%), 8.33% of stress in both social factors and illness related factors, 7% of stress in the area of financial factors and 5% of stress in the area of religious factors whereas fathers were having more stress in the area of child appearance / behaviour (30.14%), parental role alteration (25%) 9.16% of stress in the area of social factors, 9.04% of stress in the area of illness related factors, 9% of stress in the area of financial factors, 7% of stress in the area of sights and sounds and 6.11% of stress in the area of religious factors.

3. Association between stress and selected demographic variables

The second objective was to find out the association between the stress of the parents with selected demographic variable.

There was a significant association of sex ($p > 0.3035$) with stress compared to other demographic variable like age, birth weight of baby, ordinal position, age of parents, education, occupation, income, type of family, marital status, number of children, type of delivery, gestational age, illness / accidents and previous exposure to stress.

Discussion

The finding shows that 76.6% of parents had moderate level of stress and 23.3% had mild level of stress. The area wise assessment of level of stress showed that out of 60 parents, mothers were having more stress in the area of parental alteration (30.72%) and least stress in the area of religious factors (5%) and in fathers 30.14% were having more stress in the area of child appearance / behaviour and least stress in the area of religious factors (6.11%). Many other studies⁵⁻⁷ also found that majority of parents were having stress in parental role alteration.

Many studies have reported severe stress among mothers compared to fathers. A study by Howe T et al found overall stress more among fathers of preterm baby compared to mother.¹¹⁻¹⁴

The finding of other study showed that fathers were having more stress in the area of financial factors in conflict with the present study, however the present study states that fathers were having less stress in the area of financial factors. The stress was more among parents having male child. The finding is concurrent with the study conducted by Erdem Y.^{15,16}

The study has some limitations. As most of the time, mothers were present in NICU, data was collected from fathers available during the time. The study is conducted from only one NICU which makes difficult to generalize the findings.

Conclusion

The overall findings of the study clearly showed that the NICU parents were having more stress in the area of parental role alteration and child appearance / behaviour compared to other component.

References

1. Browne VJ, Talmi A. Family-based intervention to enhance infant-parent relationships in the neonatal intensive care unit. *J Pediatr Psycho* 2005;30:667-67
2. Feldman R, Weller A, Leckman FJ, Kuint J, Edelman IA. The nature of mother's tie to her infant: Maternal bonding under conditions of proximity, separation, and potential loss. *J Child Psychol Psychiatry* 1999;40:929-939.
3. Spielberger CD. Manual for the State-trait Anxiety Inventory (STAI) Palo Alto, CA: Consulting Psychologists Press;1983.
4. Wigert H, Johansson R, Berg M, Hellstrom AL. Mothers' experience of having their newborn child in a neonatal intensive care unit. *Scand J Caring Sci* 2006;20:35-41.
5. Obeidat HM, Bond EA, Callister LC. The Parental Experience of Having an Infant in the Newborn Intensive Care Unit. *J Perinat Educ* 2009;18:23-9.
6. Linda S. Measuring neonatal intensive care unit-related to parental stress. *J Adv Nurs* 2005;49(6):608-15.
7. Subhashini L, Geetha R, Radha MS. *RGUHS J Nursing Science* 2016;6(2):28-60
8. Busse M, Stromgren K, Thorngate L, Thomas KA. Parent Responses to Stress: PROMIS in the NICU. *Crit Care Nurse*. 2013;33:52-60. doi:10.4037/ccn2013715.
9. Arockiasamy V, Holsti L, Albersheim S. Fathers' experiences in the neonatal Intensive care unit: A search for control. *Pediatrics* 2008;121:215-222.
10. Miles MS, Carter MC, Hennessey J, Eberly TW, Riddle I. Testing a theoretical model: correlates of parental stress responses in the pediatric intensive care unit. *Matern Child Nurs J* 1989;18:207-219.
11. Roque ATF, Lasiuk GC, Radünz V, Hegadoren K. Scoping Review of the Mental Health of Parents of Infants in the NICU. *J Obstet Gynecol Neonatal Nurs* 2017;46: 576-587.
12. Ionio C, Colombo C, Brazzoduro V, Mascheroni E, Confalonieri E, Castoldi F, Lista G. Mothers and fathers in NICU: the impact of preterm birth on parental distress. *Eur J Psychol* 2016;12:604-621. doi: 10.5964/ejop.v12i4.1093.
13. Dudek-Shriber L. Parental stress in the neonatal intensive care unit and the influence of parent and infant characteristics. *Am J Occup Ther* 2004; 58, 509-520. doi: 10.5014/ajot.58.5.509.
14. Howe TH., Sheu CF., Wang T. N., Hsu YW. Parenting stress in families with very low birth weight preterm infants in early infancy. *Res Dev Disabil* 2014; 35:1748-1756. doi: 10.1016/j.ridd.2014.02.015 .
15. McGill B. Navigating New Norms of involved fatherhood: employment, fathering attitudes, and father involvement. *Journal of family issues* 2014;35. <https://doi.org/10.1177/0192513X14522247>.
16. Erdem Y. Anxiety levels of mothers whose infants have been cared for in unit level 1 of neonatal intensive care unit in Turkey. *J Clin Nurs* 2010;19:1738-47.