



## **Level of Anxiety among the Mothers of Preterm Newborn Admitted in Nicu Ward**

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### **Authors' contributions**

*This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.*

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### **ABSTRACT**

**Background:** Premature birth has a great impact on the parents. In India, 27 million babies are born each year out of which 3.5 million babies are born premature. This study included premature infants <37 weeks of gestation. Preterm birth may have a negative impact on parents' experience as well. In fact, the premature birth of the baby suddenly interrupts the building of parents' mental representations and expectations.

**Aim and Objective:** The purpose of this study was to assess the level of anxiety among the mothers of preterm newborn admitted in NICU ward and to find out the association between the level of anxiety among the mothers of preterm newborn with their demographic variable.

**Design and Methods:** A descriptive study was carried out on 50 mothers of premature newborn. Who were admitted to the neonatal intensive care unit of selected hospital, vadodara. Purposive sampling technique was used to collect the data. Descriptive and inferential statistics were applied to analyse the data by using SPSS-20 software. The samples in this study were selected by non randomised sampling technique. Mothers anxiety regarding the newborn were determined by

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Hamilton anxiety rating scale. Data was collected by applying Inclusion Criteria like Mothers of preterm who were willing to participate , who were admitted in the hospital.

**Results:** The majority of mothers the study finding of qualitative data reveals that the mothers level of anxiety 10% mild, 10% moderate, 22% severe, 58% very severe. The linear regression analysis showed that anxiety level was at significance of 0.05 level. Association between age and birth weight in demographic variables.

**Conclusion:** The present study concluded level of anxiety 10% mothers of having mild anxiety, 10% were having moderate anxiety, 22% were having severe anxiety, 58% were having very severe anxiety. The linear regression analysis showed that anxiety level was at significance of 0.05 level.

*Keywords: Anxiety; newborn; premature; NICU; mother.*

## 1. INTRODUCTION

The World Health Organization defined preterm birth united that happens before 37 weeks of gestation. Pre maturity was defined on the idea of birth weight; [1] however, in recent years, fetal age (GA) has been considered the most indicator of preterm babies' physical and neurological maturation. Preterm birth may have a negative impact on parents' experience yet of course, the premature birth of the baby A suddenly interrupts the building of parents' mental representations and expectations. Additionally, the possible critical condition both of the baby and therefore the mother may shock parents, turning preterm birth during a highly stressful or traumatic events for mothers [2].

Mothers, whose newborns are within the NICU can have psychological problems because of having a sick baby, the thought of losing their baby and failure to meet traditional parenting roles [3-5]. The physical environment is characterized by monitoring equipment, tubes and wires connected to infant, noises, and chemical scents. the most important stress experienced by parents is expounded to the separation from their baby and to the loss of their parental role as that they had previously imagined it. As suggested by Flacking et al. [6]. The neonatal intensive care unit can be difficult environment for parents because it is noise hot and crowded [7].

Several studies indicate that compared to the parents of healthy infants, parents of preterm infant experience higher levels of anxiety and depression [8] extremely premature infants are highly immature, requiring months of care at a neonatal medical care unit (NICU) [9]. Knowledge about quality of life (QoL) is paramount to family-centered and integrated healthcare on prematurity, but evidence is proscribed [10].

Berrak Mizark et al. conducted descriptive study was on anxiety level of mother with newborn during a neonatal medical care. This study anxiety level of mothers between two group ( $t=5.109 < 0.001$ ) for being a mother of sick newborn can elevated anxiety. The state of hysteria levels of mothers whose infant were in NICU were determined to be higher compared to those of mothers whose infants were in PCS [11].

## 2. MATERIALS AND METHODS

The samples in this study will be selected by non randomized sampling technique. The study was carried out in a selected hospital, Vadodara. The sample size was 50. Power analyses indicated that the minimum number of participant 50. The samples were recruited from NICU in a selected hospital, vadodara. A total of 50 were surveyed using Hamilton anxiety rating scale and sample were selected from using non randomizing sampling technique. The hamilton anxiety rating scale consists of 14 items. All the items were measured on 5 point hamiltone anxiety rating scale scale (from 0= "not present", 1= "Mild", 2= "Moderate", 3= "severe" 4= "very severe").

The data collection period lasted for two months in 2021. The participants were approached during their free time. Each of them was informed about intention of study and obtained written consent with the guaranty of their anonymity and confidentiality of data. The participants were requested to complete the questionnaires and returned back in given time.

The obtained data were analyzed using SPSS-20 software. More specifically, descriptive statistics (percentage, mean, standard deviation) were used to describe the samples characteristics, the level of anxiety among mothers of preterm newborn admitted in NICU. Finally, the impact of relationship between two variables were

Table 1. Sample analysis

Demographic variable		Level of anxiety				Total	Chi squar	Df	Level of significance
		Mild	Moderate	Severe	Very severe				
<b>Age</b>	1-15 days	2	4	4	17	27	21.937	6	S
	16-30 days	1	1	7	12				
	31-45 days	2	0	0	0				
<b>Gender</b>	Male	2	5	4	14	25	6.053	3	NS
	female	3	0	7	15				
<b>Birth weight</b>	< 1000gm	0	1	5	1	7	16.048	6	S
	1001 gm to 2000gm	3	1	5	19				
	2001 gm to 3000gm	2	3	1	9				
	Above 3000gm	0	0	0	0				
<b>Gestational age</b>	<30week	0	1	2	3	6	7.724	9	NS
	31-34 week	3	2	3	18				
	35-39 week	2	1	3	6				
	38-42 week	0	1	3	2				
<b>Days of NICU</b>	1-5 days	0	0	2	8	10	5.743	9	NS
	6-10days	4	3	6	15				
	11-55days	1	2	2	5				
	More than 15days	0	0	1	1				
<b>Gravida</b>	Primi	0	0	4	7	11	7.542	9	NS
	Second	4	4	3	16				
	Third	1	1	3	5				
	Fourth and above	0	0	1	1				
<b>Education al status of mother</b>	Primary school	0	1	3	4	8	9.898	12	NS
	Secondary school	2	3	4	12				
	Higher secondary	3	1	1	5				
	Graduation and above	0	0	2	6				
	Illiterate	0	0	1	2				

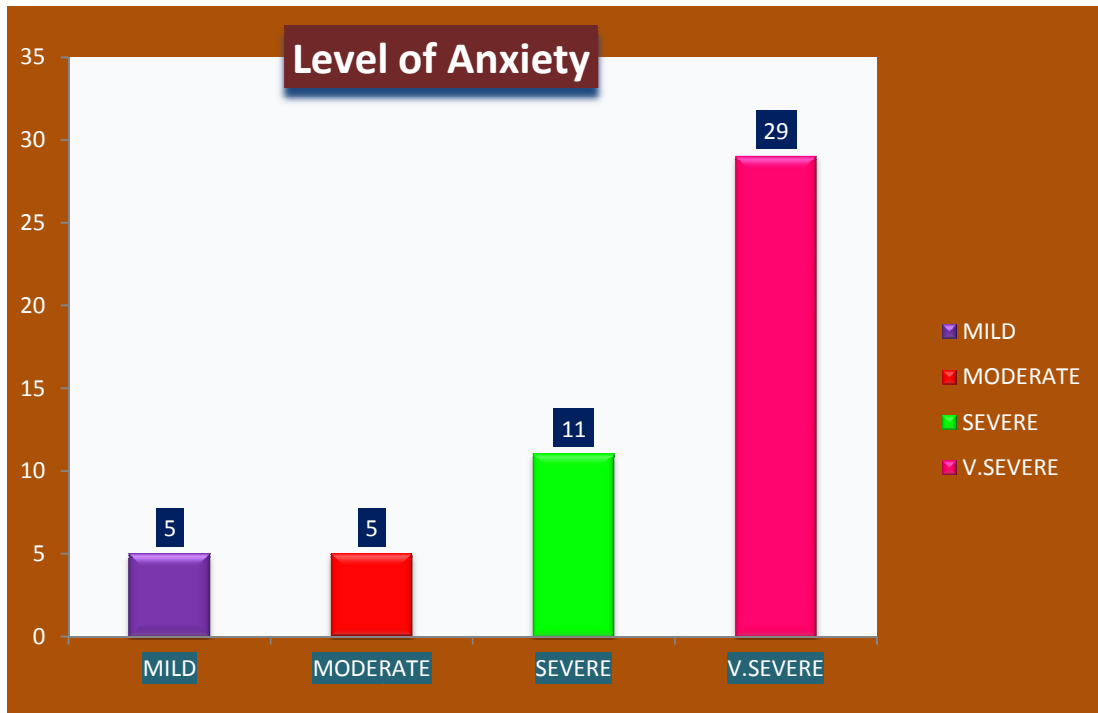


Fig. 1. Level of anxiety

assessed using linear regression analysis. Chi-square test used in order to find out the association between anxiety among mothers . The level of significance was set at  $p < 0.05$ .

Sample calculation :

Incidence of mothers anxiety

$$p = 0.04\%, q = 1 - p, 1 - 0.04 = 0.96$$

$$n = \frac{(SD)^2 \times p \times q}{(df)^2}$$

$$n = \frac{(1.96)^2 \times 0.04 \times 0.96}{(0.05)^2}$$

$$n = 59.006$$

Hence 50 sample have been selected for research study.

### 2.1 Statistics

Inferential statistics like, Chi Square test used to find the association with demographic variables.

## 3. RESULTS

### 3.1 Section -A Demographic Variable

In this study demographic variables were: Age of child, Gender, Birth Weight, Gestational age, Days of NICU, Gravida, Educational status of mother.

### 3.2 Section -B Hamilton Anxiety Rating Scale (Ham-A)

0 = Not present, 1 =Mild , 2 = Moderate , 3 = Severe, 4= very severe

The findings of the study concluded that 5(10%) of the patients were mild, 5(10%) of the patient were moderate, 11(22%) of the patient were severe, 29(58%) of the patients were very severe. The research findings show that there is significant association between age, birth weight and level of anxiety selected social-demographic variables

### 3.3 SECTION - C Shows Anxiety Level among Mothers

Above figure shows that, 5(10%) of the mothers were mild, 5(10%) of the mothers were moderate, 11(22%) of the patient were severe, 29(58%) of the patients were very severe.

## 4. DISCUSSION

The study finding of qualitative data reveals that mothers level of anxiety 10% of samples having mild anxiety, 10% were having moderate anxiety,

22% were having severe anxiety, 58% were having very severe anxiety.

## 5. CONCLUSION

After knowing mothers level of anxiety among preterm newborn mothers able to ventilate their feelings. The overall experiences of mothers were not good and there was association with demographic variables. This study has drawn the implication to the field of nursing education, nursing practice, nursing administration and nursing research.

## CONSENT

As per international standard or university standard, respondents' written consent has been collected and preserved by the author(s).

## ETHICAL APPROVAL

As the study conducted on humans, approval from institutional ethical committee was obtained before commencement of the study.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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