

# A Study on Knowledge on Selected Minor Disorders of Newborn among Postnatal Mothers in a Selected Hospital at Mangaluru

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## ABSTRACT

**Introduction:** Giving birth does not make a woman a mother. It takes a special woman to be a mother. A mother is a person who is willing to take responsibility of investigating her life into another human being who is totally dependent upon her to do so. Neonatal period is the most crucial one in a person's life. Among the almost 3.9 million newborn deaths that occur worldwide, about 30% occur in India. Children are our future and utmost precious resources. After birth the health of the child depends upon the health care practice adopted by the family, especially by the mothers. Information about neonatal problems and newborn care practices will help in reducing mortality and morbidity during the neonatal period. This study was conducted to identify the knowledge of postnatal mothers with regard to minor disorders of newborn.

**Objectives:** To find the knowledge of postnatal mothers on selected minor disorders of newborn and to find its association with selected demographic variables.

**Methodology:** A quantitative approach is used for this study. The study was carried out on 95 postnatal mothers admitted in the postnatal ward of a selected hospital at Mangaluru. Institutional ethics committee permission was obtained. After taking informed consent 94 postnatal women were selected by purposive sampling technique. The tool consists of demographic profile along with knowledge questionnaire. Reliability and validity of the tool were established. Data was analyzed using descriptive and inferential statistics.

**Results:** The findings revealed that majority (51.6%) of the postnatal mothers had good knowledge and 30.6% had average knowledge on selected minor disorders of newborn. 15.7% had excellent knowledge and very few (2.1%) showed poor knowledge on selected minor disorders of newborn. There exist no significant association of knowledge score with majority of the demographic variables.

**Keywords:** Postnatal mothers, Knowledge, Minor Disorders, Newborn.

## INTRODUCTION

“Birth is not only about making babies. Birth is about making mothers strong. Competent, capable mothers who trust themselves and know their inner strength.”

*-Barbara Katzrothman*

“The birth of a mother,” which means giving birth to a new identity can be as demanding as giving birth to a baby.<sup>1</sup> The birth of a neonate is one of the inspiring and emotional events that can occur in one's life

time. The health of new born is of vital importance in all societies as children are the future citizen. Health is said to exist when newborn can meet the physical, physiological, intellectual, psychological and social requirement appropriate according to their growth and development. Neonatal period is the phase of life with greatest risk of mortality. They have unique health status and problems due to structural and functional immaturity of various body

organs depending upon their gestational age and birth weight.<sup>2</sup>

Neonates may develop some physical or physiological problems after birth and they can be easily treated and bears no significance. Neglecting the minor health problem is one of the factors contributing to the new born mortality rate<sup>3</sup>. Every year about 27 million babies are born in India and almost 1.2 million die during newborn period accounting for 30% of global death rate .India has the deciduous distinction of having highest number of annual neonatal deaths among all countries in the world: In order to reduce neonatal mortality, essential basic new born care services should be available in all health care levels. Sometimes minor ailments of new born can cause physical disorder and in mild condition if not treated timely it may cause severe illness and even death. There the knowledge of mother on minor disorders of newborn is very important.<sup>4</sup>

### **Need for the study**

In most of the developing countries the health problems of newborn infants remain neglected and interventions to reduce early neonatal mortality are not of high priority. The reasons for this neglect includes cultural adaptation to high neonatal wastage, poor data collection about perinatal deaths and wide spread misconception that neonatal care is highly expensive and depends on high technological equipments.<sup>5</sup>

The minor disorders are most common in newborn, neglecting the minor health problem is one of the factors contributing to the high neonatal mortality rate. A major reason for high mortality rate is lack of care at birth. In India most of the mothers are not aware of minor disorders of newborns. This study will help us to assess the knowledge of postnatal mothers regarding minor diseases of newborn.<sup>6</sup>

Every year, four million babies die in the first month of life and evidences proves that a quarter of these take place in India. A package of essential newborn care practices exists, which has a proven impact

on reducing mortality, and can be implemented in low resource settings. In India, 50-60 % of all infant deaths occur within the five months of life. Of these, more than half may die during the first week of birth. This is because the newborn has to adapt itself rapidly and successfully to an external environment. The risk of death is the greatest during the first week after birth due to poor knowledge in the mother on newborn care.<sup>7</sup>

UNICEF reported in its annual 'State of the World's Children Forum nearly fifty percent of Indian children who die before the age of five does not survive beyond the first 28 days."India has the single highest share of neonatal deaths in the world." Worldwide, neonatal deaths or those of children under four weeks make up 37 percent of under-five deaths; therefore UNICEF emphasized the need to check the reason for newborn deaths." Breast feeding alone can reduce India's mortality rate by few points. A substantial strengthening of the Indian health system is needed. Around 25 percent children globally were underweight, whereas in India the number was 43 percent.<sup>8</sup>

At a Conference in SriGangaram Hospital, New Delhi, neonatologists opined that India will be unable to achieve any substantial drop in infant mortality without first intensifying efforts to protect babies during their first four weeks of life. An estimated 1.2 million babies die in India each year die during the first month after birth, making up two thirds of the nation's infant mortality of 67 per thousand live births. Both mothers and infants are vulnerable during the initial days and weeks of birth. This is a critical time for life-saving interventions like post-natal visits, proper hygiene and counseling about danger signs of maternal and newborn health. In India, most of the mothers are not aware of minor disorders of neonate. It is the responsibility of the nurse to educate postnatal mothers regarding identification and management of minor disorders of neonate such as vomiting, failure to pass urine and stools,

constipation, diarrhoea, physiological jaundice, conjunctivitis, umbilical cord infection, oral thrush, breast engorgement, napkin rash and skin rash which is an extended activity for the promotion of maternal and child wellbeing. The report revealed that health services should be most effective in an environment, supportive of women's empowerment protection and education.<sup>9</sup>

The main aim of the study includes:

1. To assess the level of knowledge among postnatal mothers regarding selected minor disorders of newborn.
2. To find the association between the level of knowledge of postnatal mothers on selected minor disorders of newborn and demographic variables.

## MATERIALS AND METHODS

A descriptive cross sectional institution based study was carried out on 95 postnatal mothers admitted in the postnatal ward of a selected hospital, Mangaluru. Eligibility criteria for inclusion were all the postnatal mothers admitted in selected hospital irrespective of mode of delivery. The total sample size was 95 postnatal mothers selected by purposive sampling technique. Data was collected from the mothers by administering baseline proforma and knowledge questionnaire on selected minor disorders of newborn.

Content validity of the tool was established by submitting them to 5experts. The suggestions and modifications needed on some of the areas were adopted as per expert's suggestion. The final tool had

7baseline questions and 20items in the knowledge questionnaire. Each question carried one mark for correct response and zero for incorrect one. Maximum score was 20 and minimum was 0.

A formal written permission was obtained from the concerned authority. Data was collected from 27/06/2019 to 02/07/2019. Prior to the data collection investigators became familiarise themselves with the postnatal mothers and the purpose of the study was explained. The confidentiality of their responses was assured. An informed consent was obtained from the mothers and they were asked to fill the demographic proforma and questionnaire regarding minor disorders of newborn. A time period of 15-20 minutes was given for filling up. The investigators were satisfied and happy as they were cooperative and interactive.

### Statistical analysis

- Demographic proforma in terms of frequency and percentage.
- Association of demographic variables with knowledge score of postnatal mothers was done using Chi-square test.

## RESULTS

The collected data was coded and entered in master data sheet and is analysed using SPSS. Baseline variables were analysed using frequency and percentage. Chi square test was used to find the association.

The result from the study was organized as follows;

Section I: Baseline characteristics. n=95

Sl No:	Variable	(f)	(%)
1.	<b>Age of mother in years Mean age (33.1±11.9)</b>		
	18-24	35	36.9
	25-30	41	43.1
	≥31	19	20
2.	<b>Educational status</b>		
	a) Primary education	24	25.2
	b) Secondary education	31	32.7
	c) Graduate and above	40	42.1
3.	<b>Occupation of mother</b>		
	a) Professional	12	12.6
	b) Daily wages	5	5.3
	c) Home maker	78	82.1
4.	<b>Type of family</b>		
	a) Nuclear	47	49.5
	b) Joint	48	50.5

*Table no. 1 continued.....*

5.	<b>Place of residence</b>		
	a) Rural	36	37.8
	b) Urban	59	62.1
6.	<b>Number of living children</b>		
	1child	50	52.6
	2 children	25	26.3
	3 and more	20	21.1
7.	<b>Previous knowledge on minor disorders in newborn?</b>		
	Yes	43	45.27
	No	52	54.73

**Table 2: Frequency and percentage distribution of subjects according to the grading of their knowledge score n=95**

Knowledge score	Grading	Percentage grading	Frequency	Percentage
≤8	Poor	≤40%	2	2.1
9-12	Average	41-60%	29	30.6
13-16	Good	61-80%	49	51.6
≥17	Excellent	≥80%	15	15.7

Maximum score: 20

The data presented in Table 2 shows that majority (51.6%) of the subjects had good knowledge and 30.6% had average knowledge on selected minor disorders of newborn. 15.7% subjects had excellent knowledge and very few (2.1%) showed poor knowledge on selected minor disorders of newborn.

The data presented in table 3 shows that the mean and standard deviation of knowledge score is  $13.7 \pm 2.85$  and the mean percentage 68.5.

**Table 3: Mean, Standard Deviation and Mean Percentage of Knowledge Score on selected minor disorders of newborn. n=95**

Variable	Mean± Standard Deviation	Mean percentage (%)
Knowledge	$13.7 \pm 2.85$	68.5

Max Score: 20

**Table 4: Area wise Maximum score, Mean, Standard Deviation and Mean percentage of knowledge score on selected minor disorders of newborn. n=95**

SI No	Area	Maximum Score	Mean ±SD	Mean %
1.	General questions on minor disorders of newborn	4	$2.7 \pm 0.5$	67.5%
2.	Causes, signs and symptoms of selected minor disorders of newborn	9	$4.6 \pm 1.3$	51.1%
3.	Treatment and prevention of selected minor disorders of newborn	7	$6.2 \pm 1.6$	88.5%

The data presented in table 4 denotes that the mean percentage of knowledge scores on selected minor disorders is highest (88.5%) in the area of treatment and prevention of minor disorders as compared with other domain. The postnatal mothers had average knowledge on causes, signs and symptoms, treatment and prevention of minor disorders.

## Section II: Association between knowledge score and selected demographic variables

To determine the association between knowledge score and demographic

variables, the following null hypothesis was stated:

**H<sub>01</sub>:** There will be no significant association between knowledge scores on selected minor disorders of newborn with selected demographic variables.

The data presented in the table 4 shows that computed p-value is less than 0.05 level of significance only for the previous knowledge of postnatal mothers on selected minor disorders of newborn. Hence the null hypothesis is rejected for this variable and there exists significant association between the knowledge score and previous knowledge on selected minor disorders.

**Table 5: Chi square test showing the association between knowledge score and selected demographic variables**

SL.NO.	Variables	Knowledge Median <14	≥14	X <sup>2</sup>	'p' value
1.	<b>Age of mother in years</b> a)18-24 b)25-30 c) ≥31	16 15 13	21 18 12	Fisher's exact test	0.839 NS
2.	<b>Educational status</b> a) No formal education b) Primary education c) Secondary education d) Graduate and above	0 18 14 12	2 10 13 26	Chi-Square	0.29 NS
3.	<b>Occupation of mother</b> a) Professional b) Daily wages c) Home maker d) Any other	1 4 3 36	3 9 6 33	Chi-Square	0.16 NS
4.	Type of family a) Nuclear b) Joint c) Extended	19 24 1	27 23 1	Chi-Square	0.637 NS
5.	<b>Place of residence</b> a) Rural b) Urban	26 18	27 24	Fisher's exact test	0.67 NS
6.	<b>Number of living children</b> a)1child b)2 children c)3 and more	18 12 14	28 15 8	Fisher's exact test	0.342 NS
7.	<b>Previous knowledge on minor disorders of newborn</b> a) Yes b) No	15 29	29 22	Fisher's exact test	0.023*

\*Significant

## DISCUSSION

Minor disorders of newborn are the most common problems of newborns associated with an increased risk of neonatal mortality and morbidity rate. The current study was conducted to assess the knowledge of postnatal mothers regarding minor disorders of newborn.

### Section I: Baseline proforma

The study findings revealed that highest percentage (43.1%) of postnatal mothers belonged to the age group of 25-30 years,(36.9%) belong to the age group of 18-24 years, whereas least percentage (20%) comes in the age group of more than 30 years. Similar percentage (42.1%) of postnatal mothers were educated graduate and above, (32.7%) of mothers was educated secondary education and least percentage (25.2%) of mothers had primary education. Majority (82.1%) was home makers, (12.6%) were professional workers and (5.3%) were daily wages. (50.5%) belonged to joint family and (49.5%) belonged to nuclear family. Majority of the subjects (62.1%) live in urban area and

(37.8%) live in rural area. Highest percentage (52.6%) of post natal mothers have only 1 child, (26.3%) have 2 children and (21.1%) have ≥3 children. Majority of the postnatal mothers (54.73%) did not have any previous knowledge on minor disorders in newborn and (45.27%) of mothers had previous knowledge.

The findings of the current study were found consistent with the findings of another study conducted in Chennai with an aim to assess the effectiveness of planned teaching programme on knowledge of minor disorders of newborn among postnatal mothers admitted in postnatal ward at institute of obstetrics and gynecology and government hospital for women and children at Chennai. The study findings revealed that the 65% of newborn belongs to 0-3 days of age, 31.7% belongs to 4-6 days of age and 3.3% belongs to 6-9 days of age. Majority (48.3%) of the babies were weighing 2.9-3.4 kg, 38.4% of babies were having weight of 2.5- 2.8 kg, 8.3% babies were weighing 2-2.4 kg and very few(5%) were more than 3.5kg of weight. Majority (43.3%) of the mothers belongs to 18-

21years of age, 40% of mothers belong to 22-25years of age, 13.4% of mothers belong to 25-29 years of age and a few (3.3%) belongs to more than 29years of age. Majority (63.3%) of the mothers undergone normal vaginal delivery. 30% of mothers undergone LSCS and 6.7% mothers had forceps delivery. Out of 60 postnatal mothers educational status of the mothers such as primary school was highest (30%), higher secondary school was 26.6%, 21.7% were graduates and 21.7% had no formal education. Regarding the occupation out of 60 postnatal mothers, 65% are house wife, 16.7% were self-employee, 10.0% were Professional, and 8.3% were Coolie. With regarding of religion, the majority of the postnatal mothers belongs to Hindu religion 78.3%, Muslim were 5.0%, and Christian were 16.7%.With regard to place of residence, the majority of the mothers belongs to urban area (65%), 255 belongs to rural area and few (10%) belongs to semi urban.<sup>10</sup>

### **Knowledge of postnatal mothers regarding minor disorders of newborn**

The current study findings revealed that majority (51.6%) of the postnatal mothers had good knowledge and 30.6% had average knowledge on selected minor disorders of newborn. 15.7% had excellent knowledge and very few (2.1%) showed poor knowledge on selected minor disorders of newborn. There exist no significant association of knowledge score with majority of the demographic variables.

A similar study was conducted in Cambridge Maternity Centre, Bangalore with an aim to assess the knowledge level of postnatal mothers regarding minor disorders of newborn Results showed that among 50 subjects, majority 34(68%) had moderate knowledge, 10(20%) had inadequate knowledge and remaining 6(12%) had adequate knowledge on minor disorders of newborn.<sup>11</sup>

### **Section II: Association between knowledge score and selected demographic variables**

Chi square test was used to identify the association between knowledge score and selected demographic variables. The study result revealed that there exist association between knowledge score with previous knowledge of postnatal mothers on selected minor disorders of newborn ( $p < 0.05$ ).

A descriptive study was conducted in the Maternity Unit of a selected Medical College Hospital, Mangalore with an aim to identify the knowledge of primi mothers on common problems of normal neonates using a pretested structured knowledge questionnaire. The samples consisted of 60primi mothers. The study revealed that the majority 27(45%) of the primi mothers had good knowledge on selected minor diseases such as vomiting, diaper rash, diarrhoea, umbilical cord infection. About 20 (33.3%) had an average knowledge and about 13(21.67%) had poor level of knowledge on the common problems of newborns. No association was found between knowledge of primi mothers and selected baseline variables.<sup>9</sup>

### **CONCLUSION**

Mother's knowledge is an important instrument in bringing up of a healthy child. The purpose of the study is to find the knowledge of mothers regarding selected minor disorders of newborn. The study finding revealed that majority of the study population had good knowledge on selected minor disorders of newborn.

### **Limitations of the study**

This study is limited to a small population thus generalization of the finding was limited.

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