



# KNOWLEDGE REGARDING PERCEIVED HOME CARE NEEDS AMONG PARENTS OF PREMATURE BABIES ADMITTED IN NICU OF SELECTED HOSPITALS: A DESCRIPTIVE STUDY.

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## Abstract:

**Background:** The birth of a premature baby is an unexpected event and often stressful for parents. The baby is usually separated from the mother immediately after birth and is hospitalized in a Neonatal Intensive Care Unit. The physical separation of the baby, size and appearance of the preterm baby, change in parental role, condition of infant and tube feeding have been identified as sources of stress for mothers.<sup>1</sup> **Objectives:** 1) To assess the knowledge regarding perceived home care needs among parents of premature babies admitted in NICU. 2) To associate the knowledge score with their selected demographic variable. 3) To disseminate informational booklet on perceived home care needs among parents of premature babies. **Methodology:** Non experimental descriptive design used for the study. It was conducted over 100 parents of premature babies by using Non probability convenient sampling technique. **Results:** Assessment was done using self-structured questionnaire on knowledge regarding perceived home care needs. Analysis showed that minimum knowledge score was 5 and maximum knowledge score was 21. mean knowledge score was  $11.30 \pm 4.18$  and mean percentage of knowledge score was  $45.20 \pm 16.72$ . Mean knowledge score of the parents of premature babies for the area of introduction was  $0.68 \pm 0.46$ , for the area of characteristics it was  $2.04 \pm 1.15$ , for the area of perceived home care needs it was  $1.35 \pm 0.70$ , for the area of kangaroo mother care it was  $2.18 \pm 1.25$ , for the area of immunization it was  $2.11 \pm 1.18$ , for the area of baby personal hygiene it was  $2 \pm 1.22$  and for the area of monitoring baby body weight mean knowledge score was  $0.92 \pm 0.76$ . **Conclusion:** Analysis reveals that there was association of knowledge score with age, educational status, occupation, knowledge regarding perceived home care needs, while none of other demographic variables were associated with knowledge score. Thus it was concluded that assessment of knowledge regarding perceived home care needs among parents of premature babies in selected hospitals was average. Parents of premature babies were having good knowledge in the area of Kangaroo mother care and immunization of perceived home care needs.

**Index Terms:** “Perceived home care needs”, “Parents”, “Premature babies”, “NICU”, “Assessment”, “Knowledge”.

## INTRODUCTION

New-born period encompasses the first four weeks of extra uterine life. The physical and mental well – being of an individual depend on the correct management of events in the perinatal period.<sup>2</sup> Premature birth is one that occurs before the start of the 37th week of pregnancy. The premature babies are kept in NICU for their sickness or other health problems. The prolonged stay of premature and low birth weight babies in the NICU is associated with emotional trauma, uncertainty, anxiety, and lack of bonding with the baby on the part of parents.<sup>3</sup> As a parent of a premature baby, there's nothing more exciting than finally bringing your bundle of joy home from the hospital. But especially for new parents, the best possible care can also be providing to a nerve-wracking

experience. Preterm babies are commonly admitted to the neonatal intensive care unit (NICU) to receive the specialized care they need to best develop after birth.<sup>4</sup> About 10-12% of Indian babies are born premature as compared to 5-7% incidence in the west. The premature new-borns are anatomically and functionally immature and therefore, their neonatal mortality is high.<sup>5</sup>

## I. BACKGROUND

Premature babies, especially those born very early, often have complicated medical problems leading admission to Neonatal Intensive Care Unit (NICU).<sup>6</sup> The sensitivity of preterm stage lies in the development of body systems in this period, especially the nervous system consequently irrecoverable damage could be happening in this age.<sup>7</sup> Earlier research indicated that preterm neonate readmission to NICU due to jaundice, respiratory morbidities, temperature instability, hypoglycaemia, and sepsis which may reach preterm neonatal death. The majority of infant morbidity and mortality are caused by parental unconsciousness, particularly insufficient maternal knowledge or misunderstanding of maternal and new-born care during this period.<sup>8</sup> Parent is faced with numerous challenges by experiencing a premature birth; therefore, knowing about the parent's efforts and knowledge regarding premature babies. The present study was carried out to explore the parents' knowledge regarding prematurely babies.

## II. NEED OF THE STUDY

Premature is the leading cause of death in children below the age of five years old. Preterm birth rates are increasing. Several years ago WHO sets the November 17th as "World Premature Baby Day". In 2012, WHO has developed new guidelines with recommendations for improving outcomes of preterm birth. From the statistic of WHO (2019), India tops the list of 10 nations contributing 60% of the world's premature deliveries.<sup>9</sup> Hence, more concerns about promoting family centred care and keeping parental involvement when infant births. Globally, prematurity is the leading cause of death in children under the age of 5 years. And in almost all countries with reliable data, preterm birth rates are increasing.<sup>10</sup> The hospitalization of a child in the NICU is a difficult and challenging experience for mothers and their families, since the highly modern and technological environment of the NICU separates the babies physically, psychologically, and emotionally from their parents. Viewing above statistics and findings, the rate of premature babies is increasing day by day and a very few studies are conducted on home care needs. Thus investigator felt the need to assess the knowledge of parents of premature babies on perceived home care needs and to disseminate information booklet on perceived home care needs to create the awareness.

### *Title of the study:*

“Knowledge regarding Perceived Home Care Needs among Parents of Premature babies admitted in NICU of selected hospitals: A Descriptive Study”.

### A) *Objectives*

#### *Primary objectives:*

- To assess the knowledge regarding perceived home care needs among parents of premature babies admitted in NICU of selected hospitals.

#### *Secondary objectives:*

- To assess the knowledge regarding perceived home care needs among parents of premature babies admitted in NICU.
- To associate the knowledge score with their selected demographic variable.
- To disseminate an information booklet regarding perceived home care needs.

**B) Operational Definition:**

1. *Knowledge:* In this study, it refers to the correct responses obtained from parent's regarding their knowledge on perceived home care needs.
2. *Perceived:* In this study, it refers to process of attaining awareness or understanding the information about knowledge of home care needs among parents of premature babies.
3. *Home care needs:* In this study, it refers to home care needs of premature babies related to Kangaroo mother care, immunization, personal hygiene, monitoring baby body weight.
4. *Parents:* In this study, it refers to mothers or fathers of premature babies
5. *Premature babies:* In this study, it refers to a premature birth is one that occurs before the start of the 37 weeks of pregnancy.
6. *NICU:* In this study, it refers to specializing in the care of ill or premature babies.
7. *Hospitals:* In this study, it refers to an institution providing medical and nursing care for the premature babies.

**C) Assumptions:**

- Parents may have less knowledge regarding perceived home care needs of premature babies.
- There may be association between knowledge score with their selected demographic variable.

**D) Limitations:**

The study is limited to:

- The study was conducted only on parents of premature babies.
- The study was limited to measure the knowledge of parents of premature babies in selected hospitals.
- The tool for data collection was prepared by investigator herself. Standardized tool was not used.

**E) Ethical Aspect**

The ethical committee of the institution had given the approval for this study proposal. Prior permission was obtained from the concerned authority for conducting this study. After explaining all the aspects of the study to the participants, written consents were taken from them. All the information obtained from the participant was kept confidential.

**F) Review of Literature**

In the present study the literature reviewed has been organized into the following categories:

- Literature related to premature babies
- Literature related to knowledge regarding home care needs of premature babies

**G) Conceptual Framework:**

The conceptual framework used for the present study is developed from the Health Belief Model.

#### IV. METHODOLOGY

1. *Research approach:* Quantitative research approach
2. *Research design:* Non-experimental descriptive research design
3. *Setting of the study:* The study was conducted in selected hospitals.
4. *Research variable:* Knowledge regarding perceived home care needs among parents of premature babies.
5. *Demographic variables:* Age, gender, monthly family income (Rs), area of residence, educational qualification, occupation, order of child, awareness of perceived home care needs, source of information

#### 6. Population

- **Target population:** All Parents of premature babies admitted in NICU of selected hospitals.
- **Accessible population:** All parents of premature babies admitted in selected hospitals are available at the time of data collection who were fulfilling the inclusive criteria.

#### 7. Sampling

- **Sample size:** 100 parents of premature babies.
- **Sampling technique:** Non probability convenient sampling technique

#### 8. Sampling criteria

##### • **Inclusion criteria:**

- Having premature babies
- Able to read, write and understand Marathi, Hindi.
- Willing to participate in the study.

##### • **Exclusion criteria:**

- Health care professionals
- Not available at the time of data collection.

#### 9. Description of Tools

- Section- A: - Demographic Variables
- Section- B: - Self-structured knowledge questionnaire on perceived home care needs

#### 10. Validity

For the content validity, the tool was distributed to 22 experts including child health nursing experts, community health nursing and statistician. Experts were chosen according to their area of specialty. Valuable suggestions were given and necessary corrections were made after the consultation with guide.

#### 11. Reliability

In this study, by using Guttman Split Half method of reliability, it was found to be 0.862 and hence tool is reliable and valid.

#### 12. Pilot study

It was conducted on 10 parents of premature babies and collected data was coded, tabulated and descriptive and inferential statistics used to analyze. The pilot study was feasible in term of time, money and resources.

## 13. Data collection

The main study data was gathered from 28 December 2020 to 16 January 2021. Permission was obtained from concerned authority. The samples were approached in small groups on a daily basis. Self-introduction was given by the investigator and the purpose of the study was mentioned. The consent was taken to the samples for the study. Test was conducted by self-structured questionnaire and collected back after 30 minutes. After the conduction of test the investigator administered the informational booklet on knowledge regarding perceived home care needs.

## 7. RESULT

**Section I:** Description of parents of premature babies admitted in NICU with regards to their demographic variables.

**TABLE IV-1:** TABLE SHOWING FREQUENCY AND PERCENTAGE WISE DISTRIBUTION OF PARENTS OF PREMATURE BABIES ADMITTED IN NICU IN SELECTED HOSPITALS ACCORDING TO THEIR SELECTED DEMOGRAPHIC VARIABLES.

N=100

Sr.No	Demographic Variables	Frequency (F)	Percentage (%)
1.	<b>Age (years)</b>		
	19-23 yrs	15	15
	24-28 yrs	47	47
	29-33 yrs	24	24
	≥34 yrs	14	14
2.	<b>Gender</b>		
	Male	17	17
	Female	83	83
3.	<b>Monthly family income(Rs)</b>		
	5000-10000 Rs	16	16
	10001-15000 Rs	31	31
	15001-20000 Rs	37	37
	>20000 Rs	16	16
4.	<b>Area of residence</b>		
	Urban	45	45
	Rural	37	37
	Semi Urban	18	18
5.	<b>Educational Level</b>		
	Primary	17	17
	Secondary	17	17
	Higher Secondary	42	42
	Graduation	20	20
	Post-Graduation	4	4
	Other	0	0

<b>6.</b>	<b>Occupation</b>		
	Govt. Service	8	8
	Private Service	29	29
	Homemaker	41	41
	Self Employed	14	14
	Labourer	8	8
	Other	0	0
<b>7.</b>	<b>Order of the child</b>		
	First	73	73
	Second	27	27
	Third and above	0	0
<b>8.</b>	<b>Knowledge about perceived home care needs</b>		
	Yes	75	75
	No	25	25
<b>9.</b>	<b>Source of knowledge</b> n=75		
	Mass Media	9	12
	Health Workers	35	46.7
	Relatives	29	38.7
	Friends	2	2.7

**Section II:** Description on assessment of level of knowledge score of parents of premature babies admitted in NICU in selected hospitals regarding perceived home care needs.

**Table IV-2:** TABLE SHOWING FREQUENCY PERCENTAGE WISE DISTRIBUTION OF ASSESSMENT OF KNOWLEDGE SCORE OF PARENTS OF PREMATURE BABIES ADMITTED IN NICU OF SELECTED HOSPITALS REGARDING PERCEIVED HOME CARE NEEDS.

**N=100**

Level of knowledge	Score Range	Level of Knowledge Score	
		Frequency (f)	Percentage (%)
Excellent	81-100% (21-25)	4	4
Very Good	61-80% (16-20)	11	11
Good	41-60% (11-15)	33	33
Average	21-40% (6-10)	44	44
Poor	0-20% (0-5)	8	8
Minimum score		5	
Maximum score		21	
Mean knowledge score		11.30±4.18	
Mean % Knowledge Score		45.20±16.72	

**Section III:** Description on area wise assessment of knowledge of parents of premature babies admitted in NICU in selected hospitals regarding perceived home care needs.

**TABLE IV-3:** TABLE SHOWING AREA WISE ASSESSMENT OF LEVEL OF KNOWLEDGE FOR HISTORY AMONG PARENTS OF PREMATURE BABIES ADMITTED IN NICU. N=100

Knowledge for perceived home care needs	No. of parents of premature babies responded correctly (f)	centage(%)	No. of parents of premature babies responded Wrong (f)	centage(%)
<b>Introduction</b>				
Premature baby is born before the gestation period of	68	68	32	32
<b>Characteristics</b>				
The birth weight of preterm baby is less than	38	38	62	62
Skin color of preterm baby is	33	33	67	67
Crown heel length of preterm baby is	29	29	71	71
Posture assumed by a preterm baby is	20	20	80	80
The immaturity of central nervous system in preterm baby is expressed by	43	43	57	57
Consequence of poor sucking and coughing reflex in preterm is	41	41	59	59
<b>Perceived home care needs</b>				
Perceived home care needs are very important to	74	74	26	26
The most common problem of preterm baby is	61	61	39	39
<b>Kangaroo Mother Care</b>				
KMC is a way of protecting the baby from	26	26	74	74
All are benefits of KMC EXCEPT	30	30	70	70
The important component of kangaroo mother care are	60	60	40	40
After breastfeeding, the baby should be kept in	36	36	64	64
During KMC the baby should be	66	66	34	34
<b>Immunization</b>				
Immunization is given to	74	74	26	26
BCG vaccine is given to protect the baby from	38	38	62	62
After the Administration of BCG vaccine, a papule appears in	10	10	90	90
At birth, polio vaccine is given by _____ route	68	68	32	32

Oral polio vaccine is contraindicated in the following conditions EXCEPT	21	21	79	79
<b>Baby personal hygiene</b>				
The best cloth for premature baby is	69	69	31	31
Napkin rashes can be prevented by	59	59	41	41
Eye care should be given	57	57	43	43
The principles to be followed during cleaning of the eye of the preterm baby is	15	15	85	85
Assessment of baby growth is done by checking	38	38	62	62
Weight monitoring should be done	54	54	46	46

**TABLE IV-4:** TABLE SHOWING AREA WISE MEAN KNOWLEDGE SCORE REGARDING PERCEIVED HOME CARE NEEDS AMONG PARENTS OF PREMATURE BABIES. N=100

SR. NO.	Area	Mean	SD	Mean %
1.	Introduction	0.68	0.46	68%
2.	Characteristics	2.04	1.15	34%
3.	Perceived home care needs	1.35	0.70	67.50%
4.	Kangaroo mother care	2.18	1.25	43.60%
5.	Immunization	2.11	1.18	42.20%
6.	Baby personal hygiene	2	1.22	50%
7.	Monitoring baby bodyweight	0.92	0.76	46%

**Section IV:** Description on association of knowledge score with selected demographic variables.

**Table No. IV-5:** TABLE SHOWING ASSOCIATION OF KNOWLEDGE SCORE WITH SELECTED DEMOGRAPHIC VARIABLES

N=100

SR.NO	Demographic variables	Calculated value			Df	Table value	Level of significance	Significance
		t-value	F-value	P-value				
1.	Age (yrs)	-	2.73	0.048	3,96	2.70	<0.05	S
2.	Gender	0.51	-	0.60	98	1.98	>0.05	NS
3.	Monthly family income	-	0.70	0.55	3,96	2.70	>0.05	NS
4.	Area of residence	-	2.33	0.10	2,97	3.09	>0.05	NS
5.	Educational level	-	3.75	0.007	4,95	2.46	<0.05	S
6.	Occupation	-	5.71	0.0001	4,95	2.46	<0.05	S
7.	Order of child	1.51	-	0.13	98	1.98	>0.05	NS
8.	Awareness of perceived home care needs	2.82	-	0.006	98	1.98	<0.05	S
9.	Source of knowledge	-	0.24	0.86	3,71	2.72	>0.05	NS

KEY: S: - SIGNIFICANT

NS: - NON-SIGNIFICANT

## VI. DISCUSSION

Anusha V (2017) have conducted a descriptive study to assess the knowledge and practice regarding care of preterm babies among mothers at NICU in selected Hospital, Andhra Pradesh. 30 mothers were selected for the study by non-probability convenient sampling technique. A structured interview schedule was prepared to assess the knowledge and practice levels of mothers of preterm babies. The findings shows that majority of the mothers 15(50%) had moderately adequate knowledge, 3(10%) had adequate knowledge, 12(40%) had inadequate knowledge and majority of the mothers 19(63.3%) had fair practice, 7(23.4%) had fair practice, 4(13.3%) had poor practice. There is a significant association between the knowledge of Mothers regarding care of preterm babies with their educational status, there is no significant association between the knowledge of the mothers of preterm babies and selected dependent variables. There is no significant association between the practice of the mothers of preterm babies and selected dependent variables.<sup>11</sup> In above study it is shown that knowledge and practice on care of preterm babies was effective in enhancing the knowledge and practice among mothers of preterm babies. But in these study mothers of preterm babies' knowledge and practice was not sufficient to provide best care for their baby which indicates there is need for educating mothers of preterm babies regarding their care.

In present study, there was association of knowledge score with age, educational status, occupation, knowledge regarding perceived home care needs.

**II. CONCLUSION**

Thus it was concluded that, assessment of knowledge regarding perceived home care needs among parents of premature babies in selected hospitals was average. It shows that, parents of premature babies were having good knowledge related to kangaroo mother care, immunization, baby personal hygiene, characteristics.

**VIII. ACKNOWLEDGEMENT**

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**X. REFERENCES**

1. Lomotey AY, Bam V, Diji AK, Asante E, Asante HB, Osei J. Experiences of mothers with preterm babies at a Mother and Baby Unit of a tertiary hospital: A descriptive phenomenological study. *Nursing Open*. 2020;7:150–159. <https://doi.org/10.1002/nop2.373>
2. Ghai O.P, gupta priyash, pual.v.k. Ghai Essential paediatrics.6<sup>th</sup> edition. New Delhi: CBC publisher; 2005.page no:136, 155
3. Poppy parent of premature babies project [internet]. London: Popy steering group;2009:Availablefrom:<http://www.poppyproject.org.uk/resources/Poppy+report+for+PRINT.pdf>.
4. <https://www.nutritionnews.abbott/pregnancy-childhood/infant-toddler/caring-for-your-premature-baby> on 5/3/20 at 6.05 pm
5. WHO (2015) WHO Recommendations on Interventions to Improve Preterm Birth Outcomes. Highlights and Key Messages from the World Health Organization's 2015 Global Recommendations. World Health Organization. [https://www.who.int/reproductivehealth/publications/maternal\\_perinatal\\_health/preterm-birth-highlights/en/](https://www.who.int/reproductivehealth/publications/maternal_perinatal_health/preterm-birth-highlights/en/)
6. Debillon, T., Zupan, V., Ravault, N., Magnyc, J.-F. and Dehan, M. (2001) Development and Initial Validation of the EDIN Scale, a New Tool for Assessing Prolonged Pain in Preterm Infants. *Archives of Disease in Childhood-Fetal and Neonatal Edition*, 85, 36-41. <https://doi.org/10.1136/fn.85.1.F36>
7. Weiner, A., Billamay, S., Partridge, C. and Martinez, A.M. (2011) Antenatal Education for Expectant Mothers Results in Sustained Improvement in Knowledge of Newborn Care. *Journal of Perinatology*, 31, 92-97. <https://doi.org/10.1038/jp.2010.108>
8. Montiroso R., Prete A. D., Bellù R., Tronick E., & Borgatti R, (2012) Level of nicu quality of developmental care and neurobehavioral performance in very preterm infants. *Pediatrics*, 129(5), e1129.
9. <https://www.healthynewbornnetwork.org/news-item/is-indias-healthcare-system-failing-premature-babies-even-before-they-are-born/> on 5/3/2020 at 6.30 pm
10. <https://reproductive-health-journal.biomedcentral.com/articles/10.1186/1742-4755-10-S1-S2>
11. Anusha .V *International Journal of Innovative Research and Advanced Studies (IJIRAS)*, page no: 161-164 Volume 4 Issue 8, August 2017 @inproceedings{Anusha2017ADS, title={A Descriptive Study To Assess The Knowledge And Practice Regarding Care Of Preterm Babies Among Mothers At Nicu In Selected Hospital}, author={M. V. Anusha}, year={2017}}