



## PROBLEMS AND CARE OF PRETERM NEONATES: AWARENESS OF TRAINED NURSES.

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### ABSTRACT

Preterm neonates are the babies born before 37 completed weeks of gestation. Most of the preterm newborn requires continuous observation and care. Due to high tech care and advances in treatment methods, the chances of survival of preterm baby is increased. Even then they are high risk for developing more health problems throughout the childhood. They need essential new born care and special care in the neonatal intensive care unit. The nurses who care the preterm new born need to be aware about the common problems encountered by the babies and what care is required for them. This study aimed to assess the knowledge of trained nurses about the problems and care of preterm new born. A non experimental descriptive survey design was adopted for the study. A structured knowledge questionnaire regarding the newborn problems and management was used in order to assess the knowledge of trained nurses. A sample of 35 nurses were selected by non probability purposive Sampling technique. The result revealed that 29% of the nurses had inadequate knowledge, 51% had average knowledge and 20% had adequate knowledge regarding the problems and care of preterm newborn. Majority of the samples were having adequate knowledge on the problems of newborn whereas regarding the care of newborn they had inadequate knowledge.

**KEYWORDS:** Preterm Neonates, Problems, Care, Awareness.

### INTRODUCTION

Every year fifteen million babies are born as preterm. Statistical report evident that world's two third of the preterm and three quarters of the neonatal death occurs in South Asia and sub-Saharan Africa.<sup>[1]</sup> According to World Health Organization (WHO) data and statistics of 2010, infant mortality rate( i.e. probability of dying up to one year of age per 1000 live births) in India is still 48. Premature delivery is one of the most important causes of serious illness among newborn infants. The incidence of premature deliveries according to data found in neonatal vital statistic report September 2010 compares the percentage of premature delivery with gestational age. 71.2% of all premature delivery occurs between 34-37 weeks of gestation. Only 16% of premature delivery occurs before 31<sup>st</sup> week. Rest 12.7% of premature deliveries occurs between 32-33 weeks.<sup>[2]</sup>

Prematurity is a leading cause of death among newborn babies. Due to high tech care and advances in treatment methods, the chances of survival of preterm baby is

increased. Even then they are high risk for developing more health problems throughout the childhood. The health problems may range from short term to long term problems such as hypothermia, feeding problems, hypoglycemia, infections, breathing difficulties, hyperbilirubinemia to behavioral problems, learning difficulties, visual and hearing impairment.<sup>[3]</sup>

Preterm infants are also vulnerable to psychiatric and emotional problems when they reach adolescent stage.<sup>[4]</sup> A review report on preterm birth and children's cognitive ability revealed that there was an average difference in the cognition with 10 points variation in the scale of cognitive ability.<sup>[5]</sup> Preterm baby needs essential newborn care and special care in the neonatal intensive care unit. The health care providers are competent enough to maintain thermoregulation, aseptic precautions, promote breast feeding, prevent infection, rooming-in and resuscitation for the baby.<sup>[6]</sup> A study conducted to know the nurses' awareness on preterm neonates' sleep found that the nurses had low level

knowledge.<sup>[7]</sup> The nurses who care the preterm newborn must be aware about the common problems encountered by the babies and what care is required for them. This study helped in identifying the nurses' knowledge about the effects of preterm and its management.

### MATERIALS AND METHODS

The study design chosen was non experimental descriptive in nature. The samples consisted of male and female nurses of selected institution at Mangalore. Thirty five nurses were selected by using non probability purposive Sampling technique. Permission was obtained from the ethics committee and the study participants consented for the voluntary participation. The tool was consisted of baseline data and questionnaire. The base line data includes age, gender, experience and the qualification of samples. The structured questionnaire was framed with multiple choice questions regarding the care and management of preterm neonates with one key answer and three distracters. The right answer scores one

and wrong answer zero. The total score of the questionnaire was 20 which was interpreted as <10- Inadequate knowledge, 10-15-average knowledge and 16-20-Adequate knowledge. The subject experts validated the tool and the reliability was calculated by split half method ( $r = 0.8$ ). The base line data was collected and the structured knowledge questionnaire was used in order to assess the knowledge of trained nurses. The data was analyzed by descriptive statistics such as frequency, mean, mean percentage and standard deviation.

### RESULTS AND DISCUSSION

The baseline data (Table.1) revealed that majority (46%) of the participants are in the age group of 26-30 years. Most of them were female (80%) and having 6-10 years experience (37%). With regard to qualification 74% of the nurses were qualified with post basic B.Sc Nursing degree. The mean knowledge score (Table.2) of the nurses was  $11.68 \pm 3.48$  (Mean% 58.4).

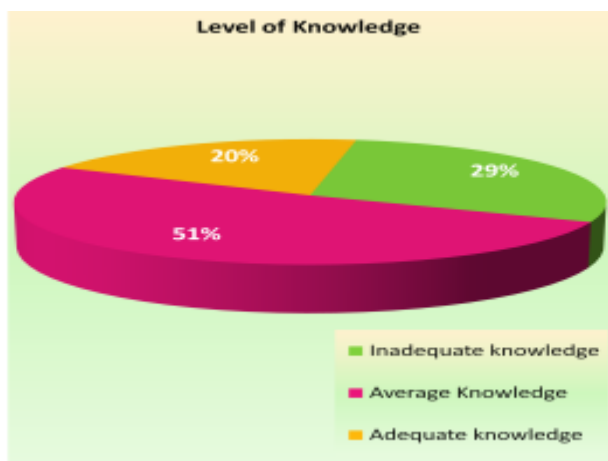
**Table.1 Distribution of baseline data N=35**

S.No	Baseline data	Frequency	Percentage
	<b>Age (in years):</b>		
	a. 20-25	14	40
	b. 26-30	16	46
	c. 31-40	5	14
	d. > 40	Nil	-
2.	<b>Gender:</b>		
	a. Male	7	20
	b. Female	28	80
3.	<b>Experience (in years):</b>		
	a. <1	Nil	-
	b. 1-2	10	29
	c. 3-5	8	23
	d. 6-10	13	37
	e. >10	4	11
4.	<b>Qualification:</b>		
	a. Post Basic B.Sc. Nursing	26	74
	b. B.Sc. Nursing	9	26

**Table.2 Mean, Standard Deviation and Mean percentage of knowledge among nurses**

Maximum possible score	Mean	Standard Deviation	Mean percentage
20	11.68	3.47	58.4

The overall result revealed (Figure.1) that 29% of the nurses had inadequate knowledge, 51% had average knowledge and 20% had adequate knowledge regarding the problems and care of preterm newborn. Area wise analysis found that majority of the samples were having adequate knowledge on the problems of newborn whereas regarding the care of newborn they had inadequate knowledge.



**Figure.1 Nurses knowledge on problems and care of preterm newborn**

Prematurity is the leading cause of neonatal death. As the nurses are the full time care givers when the child is hospitalized, they must aware about the common problems and care required for them. The present study reported that majority of the nurses were having average knowledge regarding the problems and care of preterm neonates. Area wise analysis found that majority of the samples were having adequate knowledge on the problems of newborn whereas regarding the care of newborn they had inadequate knowledge. A study done by Mahmoodi *et al.* supported the present study result where nurses had less knowledge about the preterm sleep.<sup>[7]</sup> Another study conducted by Mozghan Kalantarzadeh *et al.* found that the nurses were having average knowledge on control and prevention of nosocomial infections in the emergency departments.<sup>[8]</sup>

Similarly one more study found that the pretest knowledge level of the nurses were lesser than the posttest level. The study improved the nurses knowledge regarding prevention of nosocomial infection in NICU by giving an instructional module to them.<sup>[9]</sup> In order to improve the nurses' knowledge and skills the hospital must conduct continuing education programs, basic skills workshop, provide booklets and protocol about the basic care. They must be motivated to take part in the conferences and workshops to update and become subject experts. The limitations of the study were, very few male participants were there and equal number of the samples regarding qualification of nurses were not there, that is majority of the samples were Post Basic B.Sc. nursing and very few were with B.Sc. Nursing qualification. The response for the questionnaire was incomplete as some of the participants not answered four to five questions. It may be due to their busy schedule and the generalization of the result is limited due to small sample size. Further studies can be conducted with structured teaching program and effectiveness of it in improving the nurses' knowledge in the field of preterm newborn care.

## CONCLUSION

The mortality rate of preterm neonates can be reduced by essential care such as skin to skin contact, maintaining the temperature, breast feeding, massage therapy etc. It requires adequate knowledge and skills from the care providers. The result of the present study revealed that majority of the nurses had average knowledge on the Problems and care of Preterm neonates. The nurses must be equipped with adequate knowledge and skills by seeking opportunities to update the subject knowledge.

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