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Knowledge and Practice on Essential Newborn Care among Primipara Mothers

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Abstract: Effective care can reduce almost 3 of the 4 million deaths of babies under-one month. Essential newborn care should be applied immediately after the baby is born and continued for at least the first 7 days after birth. Study was aimed to assess the knowledge and practice on essential newborn care among primipara mothers. A hospital based cross sectional was conducted with 60 samples who met the inclusion criteria by using convenient sampling technique. Structured questionnaire and check list was used to collect the data and data were analyzed by descriptive and inferential statistics. The present study observed that out 60 samples, 16(26. 7%) had inadequate knowledge, 30(50%) of them had moderately adequate knowledge and 14(23.3%) of them had adequate knowledge. Regarding practice 16(26. 7%) of them had poor practice, 28(46. 7%) had good practice and eight (26. 6%) had best practice. There is a positive correlation between the level of knowledge and level of practice on essential newborn care among primipara mothers and but not statistically significant. Health care professionals are actively participating in providing health education to the antenatal mother regarding essential newborn care and creating environmental conditions for better hygiene and reduced exposure to contamination makes children less susceptible to diseases and infections that may lead to death there by can improve health status of the newborn and reduced the newborn mortality rate.
Keywords: Newborn care, essential newborn care, newborn, knowledge and practice of essential newborn care.

INTRODUCTION

The infant or baby is the very young offspring of humans. A newborn is an infant who is within hours, days, or up to a few weeks from birth. In medical contexts, newborn or neonate refers to an infant in the first 28 days of life. India has one billion as its population and stands second in the world: out of this 40% constitute of children. Health is birth right of each individual born in the world. The concept of health is a basic right in social justice. A baby needs special care and attention from parents; otherwise he or she will be suffering from different diseases and problems. Neonatal mortality has continued to increase as a percentage (>60%) of overall infant mortality. Any further reduction in infant mortality is dependent on saving more newborn lives. There is no doubt that a mother plays an important role in this regard.

In current trends, 30 million newborns will die within first 28 days of life between 2017 and 2030 [1]. According to WHO 2015 report globally every year, 2.7 million neonates die during the neonatal period which constitutes 45% of under-5 mortality and approximately 58% of infant mortality and 75% of the deaths occur during the first week in the neonatal period [2,3]. Most neonatal deaths were in low and middle-income countries, which account for a growing proportion of all under-five mortality [4]. A pooled analysis of the data from three studies on the timing of neonatal deaths indicates that about three-fourths of total neonatal deaths occur in the first week of life [5-7]. The first 24 hour account for more than one-third (36.9%) of the deaths that occur in the entire neonatal period.

India contributes to one-fifth of global live births and more than a quarter of neonatal deaths. Nearly, 0.75 million neonates died in India in 2013, the highest for any country in the world.1 The current NMR is 28 per 1000 live births [8]. Given the infant and under-five child mortality rates of 40 and 49 per 1000 live births, respectively, 70% of total infant deaths and more than half of under-five deaths fall in the neonatal period [8]. The three major causes of neonatal deaths worldwide are infections (36%, which includes sepsis/pneumonia, tetanus and diarrhoea), pre-term (28%), and birth asphyxia [9]. Other leading causes of infant mortality are birth asphyxia, pneumonia, term birth complications such as abnormal presentation of the foetus umbilical cord prolapse, or prolonged labor [10], neonatal infection, diarrhea, malaria, measles and

malnutrition [11]. Many factors contribute to infant mortality, such as the mother's level of education, environmental conditions, and political and medical infrastructure [12].

Effective care can reduce almost 3 of the 4 million deaths of babies under-one month: the package of essential care includes antenatal care for the mother, obstetric care and birth attendant's ability to resuscitate newborns at birth. Essential Newborn Care (ENC) is care that every newborn baby needs regardless of where it is born or its size. ENC should be applied immediately after the baby is born and continued for at least the first 7 days after birth. The components of essential newborn care – ensuring warmth, immediate skin-to-skin care, early breastfeeding, umbilical cord care, eye care, Vitamin K administration, and immunization. Several of the above interventions would also help save the lives of mothers and prevent stillbirths. Up to two thirds of newborn deaths can be prevented if known, effective health measures are provided at birth and during the first week of life. Many young lives are lost due to parents failing to recognize warning signs and sick children not being taken to health facilities on time, and because may mothers do not have sufficient knowledge on the protective value of breast feeding. Available research studies reveals that mothers had average to poor knowledge in newborn care. In the view of the above facts the present study was aimed to assess the knowledge and practice on essential newborn care among primipara mothers.

MATERIALS AND METHODS

A quantitative hospital-based cross-sectional study was conducted at postnatal ward of Multispecialty Hospital in Chennai after getting approval from Institutional Ethical Review Committee. Written informed consent is obtained from study participants after giving adequate information about the purpose of the study and the importance of their participation. The sample size for this study was 60 and selected by convenient sampling technique who met the inclusion criteria. All primipara mothers with the age group between 19 to 35 years who are conscious and mentally capable to participate in the study are included and mothers with severe acute medical and problem were excluded from the study. The dependent variable of the study was knowledge and practice of mothers regarding essential newborn care. Socio demographic variables and knowledge level was assessed by structured interview method on one to one basis by using multiple choice questionnaire and check list was used to assess the level of practice. Questionnaires were prepared in English language after consulting with experts in relevant and they are translated to the local language of Tamil to ensure the quality. Strict confidentiality was maintained during the collection and process of the data. Data were tabulated and analyzed using SPSS software package. P values less than 0.05 were considered statistically significant.

RESULTS

The study findings observed that out of 60 samples, majority of them were in the age group between 19 to 30 years and most of them were obtained the information regarding essential newborn care from the family members. Regarding educational status 22(36.7%) of them were completed till primary education and very few only had completed secondary education and above as depicted in Table -1

Table-1: **Distribution of socio demographic variables of primipara mothers**

S.No	Socio Demographic Variables	Classification	Frequency	Percentage (%)
1	Age In years	19-25 years	22	36.6
		26-30 years	22	36.6
		31-35years	16	27
2	Educational status	Illiterate	-	-
		Primary	38	36.7
		Middle	17	26.7
		Secondary & Above	5	36. 6
3	Type of family	Nuclear	26	43.3
		Joint	26	43.3
		Extended	8	13.3
4	Religion	Hindu	44	73.3
		Christian	12	20
		Muslim	4	6. 6
5	Information obtained through	Family members	32	53.3
		Neighbours	12	20
		Health care professionals	16	26. 6

Table-2: **Frequency and percentage distribution of level of knowledge on essential new born care among primipara mothers (n=60)**

Level of Knowledge	Frequency (n)	Percentage (%)
Inadequate Knowledge	16	26.7
Moderately adequate knowledge	30	50
Adequate knowledge	14	23.3

Table 2 - shows that out 60 samples, 16(26. 7%) had inadequate knowledge, 30(50%) of them had moderately adequate knowledge and 14(23.3%) of them had adequate knowledge.

Table – 3 reveals that Out 60 samples, 16(26. 7%) of them had poor practice, 28(46. 7%) had good practice and eight (26. 6%) had best practice. Table-4 shows that the mean and standard deviation of knowledge and practice is 12.7 ± 3 and 6.6 ± 1.51 respectively.

Table -5 shows that there is a positive correlation between the level of knowledge and level of practice on essential newborn care among primipara mothers and but not statistically significant.

Table-3: **Frequency and percentage distribution of level of practice on essential newborn care among primipara mothers (n=60)**

Level of Practice	Frequency (n)	Percentage (%)
Poor	16	26.7
Good	28	50
Best	16	23.3

Table-4: **Mean and Standard deviation of level of knowledge and practice on essential newborn care**

	Mean & Standard Deviation
Level of Knowledge	12.7 ± 3
Level of Practice	6.6 ± 1.51

Table-5: **Correlation between the level of knowledge and the level of practice on essential newborn care among primipara mothers**

Sl. No		Mean	Standard deviation	"r" value
1	Level of Knowledge	12.7	3	r = 0.047; p = 0.273 df = 48 NS P ≤ 0.05
2	Level of Practice	6.6	1. 51	

Table-6: **Association between the level of knowledge and selected socio demographic variables of primipara mothers (n=60)**

Sl.No	Socio demographic variables		Level of knowledge			Chi square test
			Inadequate	Moderately adequate	Adequate	
1	Age in years	19-25	10	8	16	X^2 = 15.75 df = 4 S
		26-30	4	12	24	
		31-35	2	12	16	
2	Educational status	Illiterate	-	-	-	X^2 = 13.461 df=4 S
		Primary	8	10	4	
		Middle	4	8	4	
		Secondary	2	6	14	
3	Type of family	Nuclear	4	10	12	X^2 = 60.72 df =4 S
		Joint	6	10	10	
		Extended	-	6	2	
4	Religion	Hindu	20	16	8	X^2 = 138. 03 df = 4 S
		Christian	2	4	6	
		Muslim	2	2	2	
5	Information Obtained through	Family members	8	16	8	X^2=42. 05 df=4 S
		Neighbours	2	6	4	
		Health care professionals	4	4	8	

Chi square test reveals that there is significant association between the level of knowledge and selected demographic variables such as age, educational status, type of family, religion, information obtained through at the level of $p \leq 0.05$.

DISCUSSIONS

Neonatal morbidity and mortality rate can be reduced by equipping the mothers with correct knowledge on essential newborn care practices which should start from antenatal period onwards. The findings observed from the study show that out 60 samples, 23.3% of them only had adequate knowledge and only eight (26. 6%) had best practice regarding newborn care. This study findings supported by the study conducted by S Gopala Krishnan *et al*.2014 who observed that 45% of the mothers were unaware of the precautionary measures to be taken for a newborn. Only about 30% of the mothers knew about when to give the first bath for the infant. About 55% of the participants said that fever and cold on touch were one of the important danger signs in a newborn while 24% were unaware of the danger signs. Overall, only 15% of the participants scored above 50% with regards to knowledge on newborn care [13]. Meghadipa Madal,Anuradha Ghosh, who reported that Most of them had satisfactory knowledge and adequate practice and also observed that mothers educational and socio economic status is highly influencing the knowledge and practice of the newborn care [14]. Similarly the present study also shows the significant association with the knowledge of newborn care and most of the mothers educational status was upto primary school. Shivaleela Pupate [15]**,** who revealed that 28% of mothers had good practice, 62% mothers had moderate practice and below 10% of mothers had poor practice [15]. The current study also observed that the poor practices of delayed in breast feeding, not wrapping the child properly, poor hygienic practices like eye care and umbilical card care. Similarly another study conducted by Haftom Gebrehiwot Misgna *et.al*, 2014 who found that Eighty percent (80.4 %) study participants had good knowledge on essential new born care and 92.9 % had the good practice of essential new born care [16] which contrast with the present study findings. These study findings are accordance with the present study. The findings of the present study concluded that around 30% of them only had adequate knowledge and best practices and knowledge and practice of the mothers is not significantly correlated in the present study. This study is limited to descriptive design and does not focus on any intervention to promote the knowledge and practice of the essential newborn care.

CONCLUSION

National rural health mission and Integrated Management of Neonatal and Childhood illness is actively participating in the reduction of neonatal and infant morbidity and mortality rate as well as a significant improvement in neonatal health. Home based newborn care through ASHAs to improve new born practices at the community level and early detection and referral of sick new born babies. Committing to Child Survival: A Promise Renewed' goal of reducing under-five mortality to 20 or less per 1000 live births by 2035 will not be attained without specific efforts to reduce newborn mortality. Health care professionals are actively participating in providing health education to the antenatal mother regarding essential newborn care and creating conditions for better hygiene and reduced exposure to contamination makes children less susceptible to diseases and infections that may lead to death.

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CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

REFERENCES

1. http://www.who.int/mediacentre/news/releases/2017/daily-newborn-deaths/en/
2. Eriksson, L., Nga, N. T., Målqvist, M., Persson, L. Å., Ewald, U., & Wallin, L. (2009). Evidence-based practice in neonatal health: knowledge among primary health care staff in northern Viet Nam. *Human Resources for Health*, *7*(1), 36.
3. You, D., Hug, L., Ejdemyr, S., Idele, P., Hogan, D., Mathers, C., & Alkema, L. (2015). Global, regional, and national levels and trends in under-5 mortality between 1990 and 2015, with scenario-based projections to 2030: a systematic analysis by the UN Inter-agency Group for Child Mortality Estimation. *The Lancet*, *386*(10010), 2275-2286.
4. Kim, Y. M., Ansari, N., Kols, A., Tappis, H., Currie, S., Zainullah, P., & Stekelenburg, J. (2013). Assessing the capacity for newborn resuscitation and factors associated with providers' knowledge and skills: a cross-sectional study in Afghanistan. *BMC pediatrics*, *13*(1), 140.
5. Baqui, A. H., Darmstadt, G. L., Williams, E. K., Kumar, V., Kiran, T. U., Panwar, D., ... & Santosham, M. (2006). Rates, timing and causes of neonatal deaths in rural India: implications for neonatal health programmes. *Bulletin of the World Health Organization*, *84*(9), 706-713.
6. ICMR Young Infant Study Group. (2008). Age profile of neonatal deaths. *Indian Pediatrics*, *45*(12), 991.
7. Bang, A. T., Paul, V. K., Reddy, H. M., & Baitule, S. B. (2005). Why do neonates die in rural Gadchiroli, India?(Part I): primary causes of death assigned by neonatologist based on prospectively

observed records. *Journal of Perinatology*, *25*, S29-S34.

8. Ram, U., Jha, P., Ram, F., Kumar, K., Awasthi, S., Shet, A. ... & Kumar, R. (2013). Neonatal, 1–59 month, and under-5 mortality in 597 Indian districts, 2001 to 2012: estimates from national demographic and mortality surveys. *The Lancet Global Health*, *1*(4), e219-e226.
9. http://www.who.int/pmnch/media/press_materials/fs/fs_newborndealth_illness/en/
10. Coronado, G. D., Marshall, L. M., & Schwartz, S. M. (2000). Complications in pregnancy, labor, and delivery with uterine leiomyomas: a population-based study. *Obstetrics & Gynecology*, *95*(5), 764-769.
11. Van der Kolk, B. A. (2017). Developmental Trauma Disorder: Toward a rational diagnosis for children with complex trauma histories. *Psychiatric annals*, *35*(5), 401-408.
12. Genowska, A., Jamiołkowski, J., Szafraniec, K., Stepaniak, U., Szpak, A., & Pająk, A. (2015). Environmental and socio-economic determinants of infant mortality in Poland: an ecological study. *Environmental Health*, *14*(1), 61.
13. Rama, R., Gopalakrishnan, S., & Udayshankar, P. M. (2017). Assessment of knowledge regarding new-born care among mothers in Kancheepuram district, Tamil Nadu. *International Journal Of Community Medicine And Public Health*, *1*(1), 58-63.
14. Mandal, M., & Ghosh, A. (2016). Evaluation of awareness of neonatal care practices among postnatal mothers in a tertiary care hospital.
15. Shorey, S., Chan, S. W. C., Chong, Y. S., & He, H. G. (2014). Maternal parental self-efficacy in newborn care and social support needs in Singapore: a correlational study. *Journal of clinical nursing*, *23*(15-16), 2272-2283.
16. Misgna, H. G., Gebru, H. B., & Birhanu, M. M. (2016). Knowledge, practice and associated factors of essential newborn care at home among mothers in Gulomekada District, Eastern Tigray, Ethiopia, 2014. *BMC pregnancy and childbirth*, *16*(1), 144.