

Original Research Article

Knowledge Regarding Newborn Danger Signs among Antenatal Mothers Attending Out Patient Department in Dhulikhel Hospital

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Received: 03/05/2016

Revised: 18/05/2016

Accepted: 23/05/2016

ABSTRACT

Background: Newborns are delicate and very sensitive as they are immature & susceptible to have infection. Newborn danger signs are serious health problem or life threatening illness which may lead to death. Mothers are the sole career of the child so they must be aware of neonatal illness and able to recognize newborn danger signs which reduce neonatal complication and mortality.

Objective: The objective of the study was to assess the knowledge regarding newborn danger signs among antenatal mothers.

Method: Quantitative descriptive study was done among 125 antenatal mothers using purposive sampling technique in antenatal clinic (ANC) Outpatient Department (OPD) of Dhulikhel Hospital. Data were collected by face to face interview technique using structured questionnaire. For data analysis SPSS version 16.0 was used for descriptive as well as inferential statistics.

Results: Present study showed, 55.2% had moderate knowledge, 35.2% had inadequate and only 9.6% had adequate knowledge regarding newborn danger signs. There is no statistically significant association between knowledge regarding newborn danger signs and age ($p=0.620$) & parity of respondents ($p=0.307$) whereas statistically significant association with residence area ($p=0.001$), education ($p=0.005$) & occupation status of respondent ($p=0.034$).

Conclusion: Knowledge regarding newborn danger signs was found on moderate level.

Key words: Antenatal Mothers, Knowledge, Newborn Danger Signs.

INTRODUCTION

Caring of baby is one of the most challenging periods in parent's life. The transition from intrauterine to extra uterine life is dramatic and physiological alteration by the baby in order to ensure survival. A newborn baby's survival depends on his ability to adapt to an extra uterine environment. Newborn undergoes a series of event during first 6 to 8 hours of life. The normal newborn continue to adapt after delivery with extra uterine life, they remain vulnerable to airway obstruction, hypothermia and infection.^[1]

Newborn are at high risk for developing illness as immune system is not mature and physical & physiological changes occur leading to serious life threatening illness, so continuous observation and constant care from family is necessary. Newborn care is highly cost effective because saving the life of newborn baby is associated with survival and productivity of future adult. They are truly the foundation of nation.^[2]

An estimated 130 million babies are born each year and about 4 million of them die in neonatal period. Reducing neonatal

mortality is both an ethical obligation and prerequisites to achieve millennium development goal 4, the target of which is a reduction in child mortality by two-third between 1990 to 2015. [3] According to WHO statistics, globally 10 million children die annually before five year, most of them in neonatal period as 4 million die during neonatal period and 450 newborn die every hour. According to Two-Third rule, it has been noted that two-third die in first month of life, two-third die in first week of life and two-third die in first 24hr of life i.e. 3-4 number of newborn die per hour in Nepal. The main causes of neonatal death are sepsis (26%), birth asphyxia (23%), prematurity (28%), tetanus (7%), low birth weight and hypothermia (13%), diarrhea (3%) and others (5%). [4]

Neonatal infection is major leading cause of death during neonatal period. It can contribute upto 13-15% of all death during neonatal period with mortality rate reaching as high as 50% of infant who are not treated timely. [2] the most contributors to newborn mortality and morbidity are delay in recognition of the newborn danger signs, delay in health seeking and delay in prompt treatment.

According to WHO/UNICEF common eight newborn danger signs are hypothermia, hyperthermia, jaundice, poor feeding, breathing problem, umbilical cord infection, convulsion and diarrhea. Newborn danger signs are the serious health problem or life threatening illness which may even cause death. [4] Hypothermia and hyperthermia is the common sign of neonatal sepsis. These are considered as silent killer of newborn. Hypothermia is common and preventable cause of neonatal mortality and morbidity. [2]

The purposes of study to conduct research are to assess the level of knowledge regarding newborn danger signs. The study is also to find out association

between level of knowledge and socio demographic variable.

METHODOLOGY

Quantitative descriptive cross-sectional study design was used. The research was conducted in ANC OPD of Dhulikhel Hospital. Structured and semi structured questionnaires were used to collect data to assess the knowledge regarding newborn danger signs. Ethical consideration was taken from concerned authority that is Institutional Review Committee of Kathmandu University School of Medical Sciences. Verbal consent was taken from the respondent prior to interview. Purposive sampling technique was used and face to face interview was taken with the respondents who met the inclusion criteria. Each respondent was asked the questionnaire for 15-20minutes. The data was collected among the 125 respondents. Data were arranged and entered in SPSS version 16.0 for analysis. The finding was presented for both descriptive and inferential statistics.

RESULTS

In the present study total 125 antenatal mothers were included to fulfill the objective of the study.

The analysis and findings of the study is demonstrated into two parts. They are as follows:

Part I: Demographic Data

Part II: Knowledge regarding Newborn Danger Signs.

Table No 1 demonstrates that 52% of respondents belong to age 21-25 years, 62.4% were from VDC, majority of the respondents 91% were literate, more than half (67.2%) were housewife. Regarding the parity more than half of women (55.2%) were the primi mothers.

All the respondents that are 100% mothers had heard about newborn danger sign.

Table 1: Socio Demographic Distribution of Respondents n=125

Variables		Frequency	Percentage
Age:	16-25years	20	16
	21-25years	65	52
	26-30years	35	28
	31-35years	4	3.2
	36-40years	1	0.8
Residence:	VDC	78	62.4
	Municipality	47	37.6
Education Status:	Literate	117	92.8%
	Illiterate	9	7.2%
Occupation:	Agriculture	15	12.0
	Service	17	13.6
	Business	7	5.6
	Housewife	84	67.2
	Daily wages	2	1.6
Parity	Primi	69	55.2
	Multi	56	44.8

Table 2: Level of Knowledge regarding Newborn Danger Signs among Antenatal Mothers n=125

Level of Knowledge on Newborn danger Signs	Frequency	Percentage
Adequate Knowledge	12	9.6
Moderate Knowledge	69	55.2
Inadequate Knowledge	44	35.2
Total	125	100

The above table mentions 9.6% had adequate knowledge, 55.2% had moderate knowledge and 35.2% had inadequate knowledge. In this study, adequate and moderate knowledge are considered as adequate knowledge which is 64.8% and 35.2% is considered as inadequate knowledge.

Table 3: Association between Knowledge regarding Newborn Danger Signs and Demographic Variables n=125

Variables		Knowledge status		P value
		Adequate	Inadequate	
Age	Less than 24 years	46(63.01)	27(36.9)	0.620
	More than or equal to 25 years	35(67.3)	17(32.6)	
Residence	VDC	42(53.8)	36(46.2)	0.001*
	Municipality	39(82.9)	8(17.02)	
Education	Illiterate	2(22.2)	7(77.7)	0.005*
	Literate	79(68.1)	37(31.8)	
Occupation	Unemployed	61(60.39)	40(39.6)	0.034*
	Employed	20(83.33)	4(16.66)	
Parity	Primi	42(60.86)	27(39.13)	0.203
	Multi	39(69.64)	17(30.35)	

(Note: * indicates significant association and value inside the bracket indicate percentage)

Table 3 shows that knowledge regarding newborn danger signs is significantly associated with residence, education and occupation status of respondents. However there was no statistically significant association with age and parity of respondents.

DISCUSSION

This study concluded that majority of respondents i.e. 100% told hyperthermia as newborn danger signs. Breathing problem, convulsion and diarrhea is also common newborn danger signs which is

told by 99.2% respondents. Similarly jaundice poor feeding, hypothermia and umbilical cord infection was danger sign as told by 98.4%, 95.2%, 94.4% & 92.8% of respondents respectively.

The results of the study shows that only 10.4% of respondent had adequate knowledge, 28.8% of respondent had moderate knowledge and 60.8% of respondents had inadequate knowledge on sign and symptoms of newborn danger signs. Similarly 9.6% of respondents had adequate knowledge, 49.6% of respondent had moderate knowledge and 40.8% of respondent had inadequate knowledge on preventive measures on newborn danger signs.

In this study considering over all knowledge level, only 9.6% of respondents had adequate knowledge, 55.2% of respondents had moderate knowledge and 35.2% of respondents had inadequate knowledge on newborn danger signs. This finding is similar to result of the study conducted by Fernandes Janifer P & Sauza SR in Mangalore (2013) which reported 10% of respondents had good knowledge, 64% of respondents had average knowledge, and 26% of respondents had poor knowledge among mothers regarding newborn danger signs. [5]

This study reveals there is not statistically significant association between knowledge regarding newborn danger signs and age of respondent as p value is 0.620 which was supported by study conducted by Jacob Sandberg in South Western Uganda where there was no statistically significant association between knowledge on newborn danger signs and age of respondent as p value is 1.6 [6]

The present study shows that there is statistically significant association between knowledge on newborn danger signs and residence area among antenatal mothers as p value is 0.001 which was contradict by a study conducted by Aleena Thomas Babu in Karnataka Bangalore (2013) as p value is 2.77 at 5% level of significance. [7]

This study shows that there is statistically significant association between knowledge on newborn danger signs and educational status of respondent as calculated p value is 0.005. This finding is supported by a study done by Amol R Dongre in India, which revealed that there was statistically significant association between knowledge on newborn danger signs and education status of respondent. [8]

In this study, there is significant association between knowledge on newborn danger signs and occupation status of respondents as p value is 0.034 which is supported through study done by Fernandes Janifer P & Sauza SR in Mangalore (2013) as p value is 0.002. [5]

In this study, there is no significant association between knowledge on newborn danger signs and parity as p value is 0.307 which is supported by study done in Karnataka Bangalore by Thomas Babu Aleena (2013) where there is no significant association between knowledge on newborn danger signs and parity as p value is 0.3 at 5% level of significance. [7]

CONCLUSION

Present study showed that majority of respondents had response on sign & symptoms (53.35%) and preventive measures (46.64%) of newborn danger signs. As per the knowledge score more than half (55.2%) of respondents had moderate knowledge, 44(35.2%) of respondents had inadequate knowledge and 12(9.6%) of respondents had adequate knowledge regarding newborn danger signs. There is no significant association between knowledge on newborn danger signs and age & parity of respondents. However there is statistically significant association between knowledge on newborn danger signs and residence area, education status and occupation status.

Recommendation

The following recommendations are drawn based on the findings and conclusion made in the study:

The study can be done in different setting with larger sample size.

The health care personnel should be given emphasis to provide education and awareness programme to antenatal mothers on danger sign of newborn so that mothers may be able to recognize neonatal illness and for better outcome.

ACKNOWLEDGEMENT

I am thankful to all those who have helped successfully to conduct this research. I am thankful to Institutional Review Committee (IRC), Kathmandu University School of Medical Science for giving permission to conduct the research in this subject. I am also thankful to the entire respondents without whom the research would not be successful. My thanks go to all faculties and co-authority.

Ethical Consideration

Ethical consideration was taken from concerned authority that is Institutional Review Committee of Kathmandu University School of Medical Sciences as well as authority of Dhulikhel Hospital. Verbal consent was taken from the respondent prior to interview.

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How to cite this article: Prajapati R, Madhikarmi S. Knowledge regarding newborn danger signs among antenatal mothers attending outpatient department in Dhulikhel hospital. Int J Health Sci Res. 2016; 6(6):268-272.
