

# KNOWLEDGE REGARDING NEWBORN DANGER SIGNS AMONG ANTENATAL MOTHERS

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**Abstract**

*The Transition from intrauterine to extra uterine life is dramatic and physiological alteration in the newborn occurs to ensure their survival. Newborn are at high risk of developing illness and the knowledge of mothers regarding the Newborn danger sign highly affects the survival of Newborn. The objective of the study was to find out the level of Knowledge of Antenatal mothers regarding Newborn danger signs.*

*A descriptive cross sectional study design was adopted to conduct the study. 127 Antenatal mothers were selected by using Non- Random Sampling Technique. i.e. Purposive Sampling Technique from Gynecological and Obstetrical Out-patient department of National Medical College Teaching Hospital Birgunj. Data collected on daily basis for two weeks 16-29 September 2018 through structured Interview schedule. The obtained data entered in epidata version 3.1 and then exported to SPSS version 20. Data was analysed using descriptive statistics and inferential statistics.*

*The study findings revealed that majority 52.8% of respondents had poor knowledge regarding Newborn danger signs and only 47.2% had good knowledge regarding the danger signs. The findings also reveals that there was statistically significant association between educational status of Antenatal mothers and their knowledge regarding newborn danger signs as the p value was 0.001 and also Statistically significant association between antenatal visits and knowledge level of Antenatal mothers as the p value was 0.000.*

*The study concluded that majority of Antenatal mothers interviewed had poor knowledge regarding newborn danger signs. Though it was found that majority of the mothers had previously heard about the Newborn danger signs mostly from the health professionals but still their knowledge regarding newborn danger sign was poor and there was a existing gap in knowledge regarding neonatal danger signs among the Antenatal mothers. This needs to increase educational efforts focusing on early identification of Newborn danger sign aimed for all pregnant mothers by the health care professionals.*

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**Keywords**

*New-born Danger Signs, knowledge, Antenatal mothers*

**BACKGROUND**

The newborn life begins at birth and includes the first month of life. Birth is a stressful event for a newborn. Newborns must make many physiological adaptations immediately after birth. During this time, marked physiological transitions occur in all organ systems (Kliegman, Behrman, Jenson & Stanton, 2008).

The baby from birth to under four weeks of age is called Neonate or newborn baby. According to gestational age, neonate is preterm when born before 37 week of gestation, Term after 37 to 40 weeks of Gestation and Post-term after 42 weeks of gestation. Neonate is a crucial stage of infant life due to various reasons like low immunity, dependency to others for survival and new environment after birth (Davidoff, Dias, Damus, Russell, Bettegowda, Dolan, & Petrini, 2006, February).

The Transition from intrauterine to extra uterine life is dramatic and physiological alteration in the newborn occurs to ensure their survival. The fetus leaves the dim uterine environment which has dulled the impact of the noise of outside world. Newborn undergoes a series of event during first 6 to 8 hours of life. A normal newborn continues to adapt after delivery with extra

uterine life but remains vulnerable to airway obstruction, hypothermia and infection (Fraser & Cooper, 2003).

The common eight newborn danger signs are hypothermia, hyperthermia, jaundice, poor feeding, breathing problem, umbilical cord infection, convulsion and diarrhoea. Newborn danger signs are the serious health problem or life threatening illness which may even cause death of Newborn. These warning signs are danger signs of Newborn. The common cause of these danger signs may be related to maternal malnutrition, maternal disease condition, poor knowledge of mother regarding newborn danger signs and lack of antenatal visits and poor socio-economic condition (Prajapati&Madhikarmi, 2016).

Hence, having adequate knowledge by the mother regarding newborn danger sign acquired during antenatal visit or prenatal stage significantly reduce the mortality and morbidity caused by the newborn danger sign.

Across the world 10 millions of children die annually before 5 years. Among these, most of them die in neonatal period. Four million die during neonatal period and 450 newborn die every hour. As per two-third rule, it has been found that two third of the newborn die in first month of their life another two-third die in first week of their life and the remaining two third die in first 24 hour of their life. It has been found that the main cause of Neonatal death are sepsis (26%), birth asphyxia(23%), pre-maturity( 28%), low birth weight and hypothermia(13%), diarrhea(3%) and others (5%) (Prajapati&Madhikarmi, 2016).

The Neonatal Mortality rate has risen from 40 to 60% as proportionate to Infant Mortality rate. Only half of the woman receives any antenatal care from a trained health worker and only 14% attend four ANC visits. Thus there is a gap in the knowledge of pregnant mothers due to poor antenatal care and less ANC visits. It is therefore, appropriate care of the Normal Newborn is neither widely understood nor practiced in the health system of our country Nepal. In addition, Traditional attitudes and practices dominant Newborn care and are often hazardous (Kc, Thapa, Pradhan, Kc, Upreti, Adhikari, & Aryal, 2011).

Since mothers are the primary caregiver for newborn who spent almost all time with neonates, their knowledge must reflect the adequacy of understanding regarding newborn danger signs which endeavor and sought early diagnosis and treatment to prevent newborn morbidity and mortality. Hence the knowledge of the mother should assess as women conceive and it is the best venue to access all the pregnant women who soon will be mother of newborn at the antenatal visit clinic. The adequacies in knowledge of mother ultimately reduce the risk of morbidity and mortality caused by danger sign which is why researcher is interested to conduct the study in this particular area.

## RESEARCH MRTHODOLOGY

A descriptive cross-sectional research design was selected to find out the Knowledge regarding Newborn Danger signs Among Antenatal Mothers visiting Gynecological and Obstetrical out-patient department of National Medical College Teaching Hospital. The study population for the present study was all the Antenatal mothers visiting the Gynecological and Obstetrical out-patient department of National Medical College Teaching Hospital. The non-probability sampling technique i.e. purposive sampling was adopted for selecting Antenatal mothers visiting Gynecological and Obstetrical out-patient department of NMCTH. The sample size was 127. The research instrument had two sections in which section A included socio-demographic information and section B included Structures Interview Schedule to assess the level of Knowledge regarding Newborn danger signs among Antenatal Mothers. The questions were related to different newborn danger signs, its cause, recognition of danger signs, etc. and were scored to assess the level of knowledge. Total 24 questions (8 Dichotomous questions and 16

Multiple response questions) were included in this section. The tool was prepared in English language and was further translated to Nepali and Bhojpuri language. Content validity was done by a group of expertise and certain changes were done in the tool. For structured interview schedule Cronbach’s Alpha Reliability test was used. The value of the result was found 0.73. Data was collected from 2075- Self-introduction and the title of Research, purpose of study, methods of sampling and data collection and the time frame were explained to the respondents. Written informed consent were taken from the respondents. Data were encoded and decoded then they were entered in epi Data in version 3.1. After entering all the data it was exported to SPSS version 20 program. For the descriptive statistics frequency, percentage, mean, range and standard deviation were calculated, for inferential statistics chi-square was checked to determine the association between dependent and independent variables.

**RESULTS**

**TABLE 1:Socio-demographic variables (N=127)**

Variables	Frequency	Percentage
<b>Age In Years</b>		
16-20	58	45.7
21-25	67	52.8
26-30	2	1.6
<i>Mean±SD;21.09(±2.524),Min. 16 Years, Max. 30 Years</i>		
<b>Religion</b>		
Hindu	93	73.2
Muslim	34	26.8
<b>Type of Family</b>		
Nuclear	39	30.7
Joint	75	59.1
Extended	13	10.2
<b>Educational Status</b>		
Illiterate	41	32.3
General Literate	32	25.2
Basic upto Class 8	24	18.9
Secondary 9 to 12	25	19.7
Bachelors	5	3.9
<b>Occupation</b>		
Homemaker	107	84.3
Private-Employee	16	12.6
Self-Employed	3	2.4
Government Employee	1	0.8
<b>Families Monthly Income</b>		
≤20000	92	72.4
>20000	35	27.6
<i>Mean±SD; 20039.37 (±8785.27), Min. 10000, Max. 80000</i>		
<b>Area of Residence</b>		
Urban	56	44.1
Rural	71	55.9
<b>Antenatal Visits</b>		
Once	41	32.3
Twice	34	26.8
Thrice	32	25.2
Four Times	20	15.7
<b>Source of Information</b>		
Health Professionals	117	92.1
Family and Relatives	10	7.9

**TABLE 2: Antenatal mother’s level of knowledge regarding newborn danger signs  
n=127**

Variables	Frequency	Percentage
Good Knowledge(Less than 10)	60	47.2%
Poor Knowledge(More than 10)	67	52.8%

Total	100%
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**TABLE 3: Mean Score of Knowledge Regarding Newborn Danger Signs among Antenatal Mothers n=127**

Variables	Max. Possible Score	Mean SD	Mean Percentage	Range
Total Knowledge Score	24	9.7303±3.377	40.5	18.25-3.50

**TABLE 4: Association between Level of Knowledge with Socio-demographic Variables n=127**

Variables	Level of Knowledge		X <sup>2</sup>	P Value
	Poor knowledge No. (%)	Good Knowledge No. (%)		
<b>Educational Status</b>				
Illiterate	32(78.0)	9(22.0)	11.286	0.001*
General Literate	16(50.0)	16(50.0)		
Basic upto class 8	8(33.3)	16(66.7)		
Secondary 9 to 12	7(28.0)	18(72.0)		
Bachelor	4(80.0)	1(20.0)		
<b>Antenatal Visits</b>				
Once	29(70.7)	12(29.3)	17.783	0.000*
Twice	22(64.7)	12(35.3)		

**DISCUSSION**

The finding of the study reveals that most of the Antenatal mothers 52.8% were between 21-25 years. Similarly majority of Antenatal mothers 73.2% were Hindu and Majority 59.1% of Antenatal mothers were from joint family and remaining 10.2%. Regarding educational status majority of the Antenatal mothers 32.3% were illiterate. In concern about occupation 84.3% were homemaker and in context of Family’s Monthly income Majority 72.4% of Antenatal mothers had Family’s monthly income less than or equal to 20000. Regarding Area of residence majority of Antenatal mothers 55.9% were from rural area. In context of Antenatal visits majority 32.3% of Antenatal mothers had once their Antenatal visit. All of them have heard about Newborn danger sign and majority 92.1% of them has heard the information from Health professionals.

This study reveals among 127 Antenatal mothers 79.5% stated umbilical cord infection, 70.9% hyperthermia, 66.1% diarrhea, 46.5% poor feeding, 45.7% hypothermia, 44.9% breathing problem and only 40.9% stated jaundice as a newborn danger sign.

The majority of respondents i.e. 90.6% stated convulsion as a newborn danger sign which is contradicted by a study done by Kibaru&Otara (2016) in which majority of respondents 79.4% stated fever as a commonly recognized danger sign. The findings of the study showed that more than half of the mothers 52.8% were having poor knowledge regarding newborn danger signs and the remaining 47.2% were having good knowledge.

The present study shows that there is statistically significant association between knowledge regarding newborn danger sign and antenatal visits as p value is 0.000 which was supported by a study conducted by Abdulrida, Hassan & Sabira (2018) as the p value was <0.001 at 5% level of significance and also in the present study there is statistically significant association between knowledge on newborn danger sign and educational status as the p value is 0.001 which is supported by the same study as the p value was < 0.001 respectively.

The findings reveals that there is not statistically significant association between knowledge regarding newborn danger sign with area of residence and occupation as the p value is 0.363 and 0.269 which was contradict by a study conducted by Prajapati&Madhikarmi (2016) as the p value was 0.001 and 0.034 respectively.

The findings reveal that there is not statistically significant association between knowledge regarding newborn danger signs and age of respondents as p value is 0.972 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 respondents as p value was 1.6. It is further contradicted by the study conducted by Abdulrida, Hassan & Sabira (2018) which reports statistically significant association between knowledge regarding newborn danger sign and age of respondents as the p value was < 0.001.

## CONCLUSION

On the basis of study findings, it is concluded that majority of Antenatal mothers interviewed had poor knowledge regarding newborn danger signs. There was a significant association between educational status and antenatal visits with level of knowledge of Antenatal mothers regarding newborn danger signs and no any significant association between knowledge level and other socio-demographic variables. The study concluded that though all of the mothers had previously heard about the Newborn danger signs mostly from the health professionals but still their knowledge regarding newborn danger signs is poor.

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