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Original Research Article

A Descriptive Study to Assess Knowledge Regarding Danger Signs of Neonatal Illness among Mothers at SGRD Hospital Vallah, Amritsar

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ABSTRACT

The neonatal period (i.e. from 0-28 days of life) is the most critical time for survival of infant. Globally, almost three-quarters of neonatal deaths occur within the first seven day of delivery. Postnatal period has been identified as one of the important periods when information concerning neonatal danger signs is passed on to the mother and this assist the mothers to identify children at risk and seek medical assistance as soon as possible. The objective of this study is to assess the knowledge regarding danger signs of neonatal illness among mothers. A Descriptive study was conducted on 110 mothers in postnatal ward of hospital by purposive sampling technique. Data was collected by using self structured questionnaire. The result of the study revealed that the mean±SD score was 6.20±2.74 for the knowledge among the mothers regarding danger signs of neonatal illness. It was found that half of the mothers that is 61 out of 110 had average knowledge (55.5%) regarding danger signs in neonate illness, 46 respondents had average knowledge and only 1and 2 out of 110 mothers had good and excellent knowledge respectively. There was significant association between the knowledge among mothers regarding danger signs of neonatal illness and educational status of mothers at the level of 0.01 and with source of knowledge regarding health at the level of 0.05. The findings of study conclude that there is need to enhance the knowledge among mothers regarding danger signs of neonatal illness.

Key words: Knowledge of mothers, danger signs.

INTRODUCTION

Millions of newborns die during the first 4 weeks of life each year and world wide it make 40% of the total child mortality. [1] Early detection of neonatal illness is an important step towards improving newborn survival. Every year an estimated three million children die during their first month of life and nearly one third of these deaths occur during the first 24 hours. [2] Perinatal and neonatal problems are now the leading causes of death in children under five years of age. The child may have been born at home or a health facility. [3] For children born at a health facility circumstances around delivery are handled by well trained health workers, while for the one born at home they may not. For all children, the interval between onset of illness and death can be in a matter of minutes or hours. Globally 4 million neonates die every year before they reach the age of one month and approximately 7000 newborn deaths per day most of which occurred in the first week. [4]

These disturbing statistics of neonatal mortality occurs because a newborn can die within minutes if prompt recognition, diagnosis and treatment are not initiated. [5] Therefore, it becomes urgent to survey the knowledge of the signs which mothers in the developing country may

perceive as "danger signs" (signs leading either to recognition of illness or heath care seeking) in the sick newborns. [6]

Early identification of new born danger signs by caregivers with prompt and appropriate referral serves as backbone of the programs aiming at reduction in neonatal mortality. [7] Integrated Management of Newborn and Childhood Illness (IMNCI) developed by the World Health Organization (WHO) focuses on judgment of general danger signs in the examination of children presenting with illness at health care centers. [8] WHO in 2013 strongly suggested specific danger signs that should be assessed during each postnatal care contact and the new born should be referred for further evaluation if any of the signs are present .The family should also be encouraged to seek health care early if they identify any danger signs in-between postnatal care visits .The danger signs are as follows; stopped feeding well, History of convulsions, fast breathing (breathing rate >60/min) severe chest in-drawing, no spontaneous movement, fever (temperature >37.5 °C), low body temperature (temperature <35.5 °C), any jaundice in first 24 hrs of life, or yellow palms and soles at any age. [9]

RESEARCH STATEMENT

A descriptive study to Assess Knowledge Regarding Danger Signs of Neonatal illness among Mothers at SGRD Hospital Vallah, Amritsar.

OBJECTIVES:

1. To assess the knowledge regarding danger signs of neonatal illness among mothers.
2. To find the association of knowledge regarding danger signs of neonatal illness among mothers with selected socio demographic variables.
3. To develop and distribute pamphlet regarding danger signs of neonatal illness to mothers.

OPERATIONAL DEFINITIONS

KNOWLEDGE: Refers to the responses from mothers to the knowledge questionnaire regarding danger signs of neonatal illness.

DANGER SIGNS: Danger signs are the signs in neonates that the mother should know to identify and seek health care for their neonates, it includes the following:

1. Nasal flaring
2. Grunting
3. Bulging fontanels
4. Pus draining from ear
5. Umbilicus redness or pus drainage
6. Skin pustules
7. Temperature>37.5oC
8. Lethargy
9. Yellow palms and soles
10. Restlessness
11. Elasticity of skin
12. Sunken eyes
13. Any feeding difficulty
14. Low weight for age
15. Ulcer or weight patches in mouth
16. Missed immunization
17. Convulsions
18. Fast breathing>60 b/mint
19. Chest indrawing
20. Poor sucking

NEONATAL ILLNESS: The illness which occur in newborns within 28 days of life which include:

- Possible bacterial infection/jaundice
- Diarrhea
- Feeding problems/malnutrition
- Immunization status

MOTHERS: Mothers of baby aged between 0-28 days, accompanying their neonates in postnatal ward at SGRD Hospital, Vallah, Amritsar.

RESEARCH APPROACH

In order to accomplish the main objective of assessing the knowledge regarding danger signs of neonatal illness among mothers, a quantitative research approach was adopted.

RESEARCH DESIGN

Research design refers to the researcher overall plan for obtaining answers to the research questions and it spells out strategies that the researcher adopts to develop information that is accurate objective and interpretable. Research design

is a plan for the study and the overall frame work for collecting data.

The present study adopted descriptive research design.

RESEARCH SETTING

Setting is the physical location and condition in which data collection takes place. The present study was conducted in postnatal ward at Sri Guru Ram Das Hospital, Amritsar study setting because of easy approach.

TARGET POPULATION

Target population for present study includes 110 Mothers of newborn less than 28 days of age in postnatal ward at SGRD hospital, Vallah, Amritsar.

SAMPLE & SAMPLING TECHNIQUE

Purposive sampling technique was used to select the sample for the study.

The sample for the present study comprises of 110 mothers of newborn less than 28 days of age at Sri Guru Ram Das Hospital, Vallah, Amritsar, Punjab.

Sampling Criteria: List of characteristics essential for inclusion and exclusion in the target population.

Inclusion criteria:

- Mothers who were willing to participate in the study.

Exclusion criteria:

- Mothers who were not available during the time of data collection.
- Mothers whose babies were of more than 28 days age.

Data collection technique: The data was collected from 110 mothers by self-structured knowledge questionnaire.

Selection and development of tool:

It was selected and finalized after extensive review of literature and with expert's opinion.

Description of tool:

Part A:

Socio-demographic profile-It consists of Age, Religion, Type of family, Size of family members, Educational status of mother, occupation of mother and number of children.

Part B: Self structured Multiple choice question items were used to assess the Knowledge of mothers regarding danger signs of neonatal illness.

Criterion measures

Mother's knowledge regarding danger signs of neonatal illness were assessed using knowledge questionnaire. There were total 20 items. Each right answer was awarded one mark and wrong answer was scored zero. Knowledge level as per score obtained was interpreted as follows:

Level of knowledge	**Score**
Excellent knowledge	20-16
Good knowledge	11-15
Average knowledge	6-10
Poor knowledge	<6

Table1. Frequency and percentage distribution of socio demographic variables of mothers of neonates. N=110

Sr.no.	Character	f	%
1.	Age (in years)		
	≤22	11	10
	23-26	68	61.8
	27-30	27	24.5
	≥30	4	3.6
2.	Educational status of mother		
	Illiterate	6	5.5
	Primary	25	22.7
	Secondary	28	25.5
	Higher secondary	25	22.7
	Graduate	19	17.3
	Post graduate	7	6.4
3.	Occupation		
	Housewife	56	50.9
	Self employed	37	33.6
	Employed	17	15.5
4.	Number of children		
	1	25	22.7
	2	79	71.8
	3	6	5.5
5.	Type of family		
	Nuclear	82	74.5
	Joint	28	25.5
6.	Place of residence		
	Urban	32	29.1
	Rural	78	70.9
7.	Family income(Rs/month)		
	≤5000	2	1.8
	5000-10000	7	6.4
	10000-20000	64	58.2
	≥20000	37	33.6
8.	Religion		
	Sikh	92	83.6
	Hindu	14	12.7
	Muslim	2	1.8
	Christian	2	1.8
9.	Number of pregnancies		
	1	23	20.9
	2	80	72.7
	3	7	6.4
10.	Number of deliveries		
	1	23	20.9
	2	80	72.7
	3	7	6.4
11.	Place of previous delivery		
	Hospital	86	78.2
	Not applicable	24	21.8

Table 1 to be continued…

12.	Source of information(regarding health)		
	Family member	14	12.7
	Friends	1	0.9
	Relatives	9	8.2
	Mass media	32	29.1
	Health workers	52	47.3
	others	2	1.8
13.	Presence of medical personnel in family		
	Yes	25	22.7
	No	85	77.3

Table 2: Level of knowledge of mothers regarding danger signs of neonatal illness. N=110

Sr.no.	Level of knowledge	f	%	Mean / SD
1.	Excellent knowledge (≥16)	2	1.8	
2.	Good knowledge (11-15)	1	0.9	
3.	Average knowledge (6-10)	61	55.5	6.20±2.74
4.	Poor knowledge (≤5)	46	41.8	

Table 2: Illustrate that half of the mothers that is 61 out of 110 had average knowledge (55.5%) regarding danger signs in neonate illness, 46 respondents had average knowledge and only 1and 2 out of 110 mothers had good and excellent knowledge respectively. The mean average Knowledge score 6.20 was and SD was 2.74.

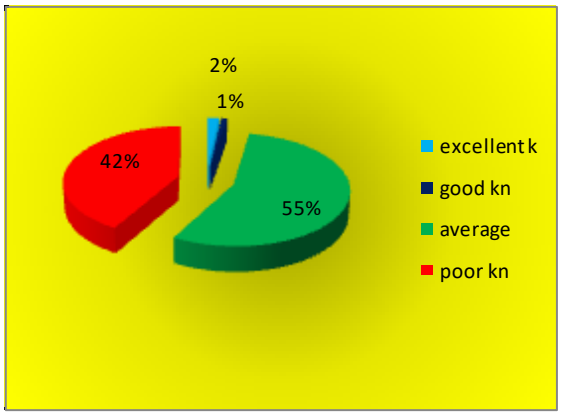

Figure 1: Level of knowledge of mothers regarding danger signs of neonatal illness

Table 3: Association between socio demographic variables and level of knowledge regarding danger signs of neonatal illness. N=110

Sr.No.	Socio demographic variable	Level of knowledge				χ^2	df	p value
		Excellent	Good	Average	Poor			
1.	Age (in years)							
	≤22	0	0	7	4			
	23-26	0	1	42	25	10.84	9	.29^{NS}
	27-30	2	0	10	15			
	≥30	0	0	2	2			
2.	Education status of mother							
	Illiterate	0	0	0	6			
	Primary	0	0	14	11	49.11	15	.00^{S}
	Secondary	0	0	20	8			
	Higher secondary	0	1	17	7			
	Graduate	0	0	7	12			
	Post graduate	2	0	3	2			
3.	Occupation							
	Housewife	0	0	31	25			
	Self employed	2	0	24	11	13.82	6	.06^{NS}
	Employed	0	1	6	10			
4.	Number of children							
	1	0	0	15	10	1.43	6	.96^{NS}
	2	2	1	43	33			
	3	0	0	3	3			
5.	Type of family							
	Nuclear	2	1	47	32			
	Joint	0	0	14	14	1.82	3	.61^{NS}
6.	Place of residence							
	Urban	0	0	15	17	3.21	3	.36^{NS}
	Rural	2	1	46	29			
7.	Monthly family income							
	<5000	0	0	0	2			
	5000-10000	0	0	2	5	11.98	9	.21^{NS}
	10000-20000	0	0	37	27			
	>20000	2	1	22	12			
8.	Religion							
	Sikh	2	1	53	36			
	Hindu	0	0	8	6			
	Muslim	0	0	0	2	6.29	9	.71^{NS}
	Christian	0	0	0	2			
9.	Number of pregnancies							
	1	0	0	16	7			
	2	2	1	42	35	3.45	6	.75^{NS}
	3	0	0	3	4			
10.	Number of deliveries							
	1	0	0	16	7			
	2	2	1	42	35	3.45	6	.75^{NS}
	3	0	0	3	4			

Table 3 to be continued…								
11.	Place of deliver Hospital Not applicable	 2 0	 1 0	 46 15	 37 9	1.25	3	.74 NS
12.	Source of information(regarding health) Family member Relatives Mass media Health workers others	 2 0 0 0 0 0	 1 0 0 0 0 0	 5 1 5 16 32 2	 6 0 4 16 20 0	25.07	15	.04 S
13.	Presence of medical personnel in family Yes No	 0 2	 1 0	 13 48	 11 35	4.95	3	.25 NS

Note: S; significant <0.05, NS; not significant >0.05, df; degree of freedom

Table 3: Illustrate the association of socio-demographic of mothers variables with knowledge of mother related to danger signs of neonatal illness. There was significant association of knowledge of mother regarding danger signs with educational status of the mother and source of information (regarding health) at level of p<0.05. other socio-demographic variables that are age of mother, occupation of mother, number of children, type of family, place of residence, monthly family income, religion, number of pregnancy, number of deliveries, place of previous delivery and presence of any medical personnel were non-significant at level of p>0.05.

Table 4: Knowledge frequency and Percentage for different Danger Sign of mothers of neonates. N=110

DANGER SIGN	f	%
Danger sign	64	58.18
Breast feeding	66	60
White patches mouth	25	22.72
Effective feeding	13	11.81
Yellow soles and palms	51	46.36
Grunting	3	2.72
Redness and pus drainage from umbilicus	66	60
Chest indrawing	13	11.81
Persistent diarrhea	33	30
Sunken eyes	30	27.27
Hyperthermia	22	20
Hypothermia	22	20
Vomiting	58	52.72
Skin pustules	25	22.72
Laziness	37	33.63
Convulsions	53	48.18
Malnutrition	18	16.36

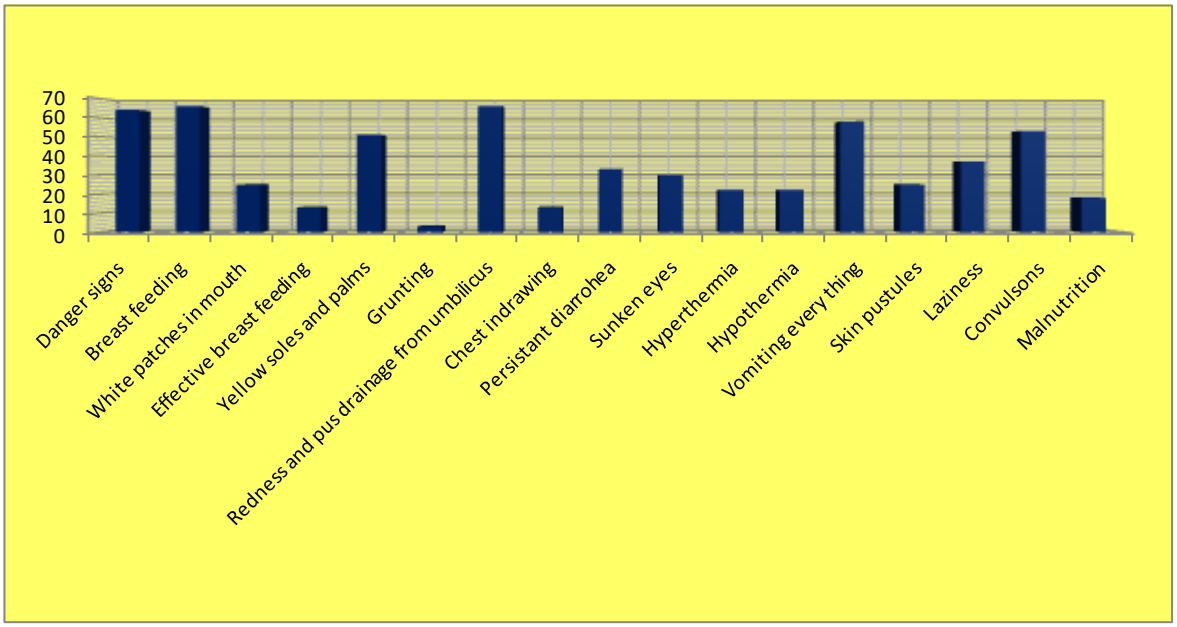

Figure 2: Knowledge frequency for different Danger Sign among mothers.

CONCLUSION

It was concluded from the study that the proportion of mothers with knowledge was low for most of neonatal danger signs. There is a need for developing interventions to increase a mother's knowledge of

newborns danger signs. Mostly the mothers were having knowledge regarding redness and pus drainage from umbilicus, breastfeeding problems and least knowledge regarding grunting. As the mother is the very first person to take care of neonates so it is important to teach the mother about the danger signs of neonates for early detection of the sufferings and to prevent neonatal mortality.

REFERENCES

1. Lawn JE, et.al. New born survival in low resource settings-are we delivering: BJOG. 2009;116:49-59.
2. Lawn JE et al. Two million intrapartum-related stillbirths and neonatal deaths where, why, and what can be done:int J Gynaecol Obstet. BJOG. 2009;107:S5-18-59.
3. Robert Kuganab-Lem et al. Exploring Women Knowledge of Newborn Danger Signs: A Case of Mothers with under Five Children. *Public Health Research journal*, 2014; Vol. No.5, pp. 195-202.
4. Bhutta ZA, et.al. Community-based interventions for improving Perinatal and neonatal health outcomes in developing countries: a review of the evidence. . *Pediatrics journal* .2015; vol.2, pp:519-617.
5. Baqui AH, Rahman M, Zaman K, El Arifeen S, Chowdhury HR, et al. A population-based study of hospital admission incidence rate and bacterial etiology of acute lower respiratory infections in children aged less than five years in Bangladesh. J Health Popul Nutr. 2007;25(2):179–88.
6. WHO recommendations on postnatal care of the mother and new born. 2013. ysadm, JS | Breastfeeding | World Health Organization. [https://www.scribd.com/document/208056184/ysadm-JS]
7. Government of India, Ministry of Health & Family Welfare.Integrated Management of Neonatal and Childhood Illness. Training modules for Medical officers.(2005). New Delhi.
8. WHO and UNICEF. (2007) Mothers knowledge, attitude, practices on signs and symptoms of IMCI strategy addressed illness.
9. Young Infants Clinical Signs Study Group. (2008). *Clinical signs that predict severe illness in children under age 2 months: a multicentre study*. Lancet, vol.371, pp 135–142.

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