

The Knowledge Level of Neonatal Danger Signs among Mothers in Aseer Region

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ABSTRACT

Introduction: The neonatal stage usually refers to the first four weeks (28 days) of a baby's life and is considered the most precarious phase of an infant's life. The World Health Organization (WHO) factsheet states that in 2018 globally, 5.3 million of under-five children death occurred, of which nearly half (2.5 million) died in the first 28 days of life, i.e., 7000 neonatal deaths every day.

Methods: In this cross-sectional study, data were collected by the purposely constructed questionnaire. A questionnaire composed of the demographic items and items related to the awareness and knowledge about the Knowledge level of neonatal danger signs among Mothers. A questionnaire was constructed after the series of discussions between the panel of experts this panel was composed of a subject specialist, researcher, language expert.

Results: Out of 850 patients 11.3% were only health professionals, 68.7% were bachelors, while 21.1% have secondary school education, only 6.0% have university level education, regarding maternal age 46.6% have more than 30 years of age.

Conclusion: Despite the fact that the participants had a lot of experience with neonatal danger signs, the proportion of mothers and caregivers who recognize at least three of them is still low in this community-based study.

Keywords: Newborn danger signs, Mothers, Aseer, Saudi Arabia

INTRODUCTION

The neonatal stage usually refers to the first four weeks (28 days) of a baby's life and is considered the most precarious phase of an infant's life¹. The World Health Organization (WHO) factsheet states that in 2018 globally, 5.3 million of under-five children death occurred, of which nearly half (2.5 million) died in the first 28 days of life, i.e., 7000 neonatal deaths every day² According to a 2016 survey conducted by Saudi General Authority of Statistics, all over the Kingdom, 2.75% of children die within 30 days of childbirth whereas 2.71% die in Aseer region³.

One of the primary reasons for newborn morbidity and mortality is failure to early recognition of newborn danger signs (NDSs), which refer to the presence of clinical signs that can indicate a high risk of neonatal morbidity and mortality and the need for prompt medical intervention. These signs include poor or no sucking, lethargy or drowsiness, difficulty in breathing, hypothermia, hyperthermia, yellowish discoloration of the palms and soles, bleeding from the umbilical cord, diarrhea, convulsion and vomiting⁴.

An important way to reduce newborn death is early recognition of NDSs and the provision of quality of curative health services for sick newborns⁵. Early identification of NDSs could significantly reduce chances of child death⁶. WHO states that children face the highest risk of dying in their first 28 days of life at an average global rate of 18 deaths per 1000 live births as of 2018; three-quarter of these deaths

occur during the first seven days and almost 33% dying on the first day⁷.

For early diagnosis of NDSs and the appropriate therapeutic intervention, it is important that mothers know the manifestations of the signs and possess positive health-seeking behavior⁸. Many mothers and their babies all over the world live in a social environment that does not promote healthcare-seeking behavior. Thus, mothers often don't ask for medical help during the postpartum, which largely impacts the survival of their newborn. The factors that affect a mother's level of knowledge about NDSs include age, education, occupational status, place of residence, history and frequency of antenatal care visits, history of postnatal care visits, parity, and place of delivery⁹⁻¹¹.

Even though Saudi Arabia has already achieved the Millennium Developmental Goal-4 target (two-thirds reduction in neonatal mortality rate by 2015) under-five mortality rate, infant mortality rate here is still higher than many of the GCC and other developed countries. As the mothers' health-seeking behavior for neonatal care depends highly on their knowledge about WHO recognized danger signs, it is important to investigate the knowledge of these signs, which has been hardly investigated in Saudi Arabia, especially in regions like Aseer. The present study investigates how well informed are the newborns' mothers in Aseer region in Saudi Arabia about WHO-suggested neonatal danger signs and how it influences their children's survival and a healthy future^{12,13}.

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METHODS

In this cross-sectional study, data were collected by the purposely constructed questionnaire. A questionnaire composed of the demographic items and items related to the awareness and knowledge about the Knowledge level of neonatal danger signs among Mothers. A questionnaire was constructed after the series of discussions between the panel of experts this panel was composed of a subject specialist, researcher, language expert. Cronbach alpha of the questionnaire was calculated. The study was conducted in the Aseer region of Saudi Arabia.

After collection of data, data were coded and entered in the SPSS ver. 20 software for analyses descriptive statistics (mean standard deviation, frequencies, and %s were computed), to measure the significance differences chi-square test was used at 5% level of significance Data was collected from the online survey through E- version of the questionnaire. The study duration was from January-2021 to April-2021, Respondents consent was taken.

RESULTS

Out of 850 patients 11.3% were only health professionals, 68.7% were bachelors, while 21.1% have secondary school education, only 6.0% have university level education, regarding maternal age 46.6% have more than 30 years of age, while 30.5% have ager between 25-29 years, 31.45 have 18-24 years, monthly income concerns, 64.9% have monthly income in between 5000-15000 sar, 22.5% have monthly income more than 15000, 12.6% have less than 5000 (SAR), 96.2% of the respondents were Saudi while 3.8% were non Saudi, 28.9% working in government sector, 23.1% working in private sector, 31.35 were un employed and only 16.7% were students. 6.15 were males while 93.9% were females, 82.7% are living in cities while 17.3% are living in villages (Table 1).

Table 1: Demographics

career:		
	Frequency	Percent
Healthcare worker	96	11.3
Non health care worker	388	45.6
Unemployed	366	43.1
Level of education:		
	Frequency	Percent
illiterate	9	1.1
Primary	8	.9
Middle	19	2.2
Secondary	179	21.1
Bachelor	584	68.7
Higher Education	51	6.0
Maternal age: (In years)		
	Frequency	Percent
Less than 18	13	1.5
18-24	182	21.4
25-29	259	30.5
more than 30	396	46.6
monthly income: (in SAR)		
	Frequency	Percent
Less than 5000	107	12.6
5000-15000	552	64.9
Above 15000	191	22.5

Nationality :		
	Frequency	Percent
Saudi	818	96.2
Non Saudi	32	3.8

Occupation:		
	Frequency	Percent
Government	246	28.9
Private	196	23.1
Un employed	266	31.3
Student	142	16.7

Gender		
	Frequency	Percent
Male	52	6.1
Female	798	93.9
Total	850	100.0

Where do you live ?		
	Frequency	Percent
City	703	82.7
Village	147	17.3
Total	850	100.0

In our research 75.3% were visited ANC, 74.0% will take immediate if he/she noticed ant danger sign and symptoms, 22.4% will wait for 2-3 days and 2.8% will wait for 4-5 days. 44.1% have 3-5 number of children's, 39.1% have above 5 number of kids. 92.4% will go to doctor, 4.9% will wait and watch, and 2.7% will use herbal treatment (Table 2).

Table 2: Awareness and response items

ANC visit:		
	Frequency	Percent
Yes	640	75.3
No	210	24.7

In case you child expressed some of theses symptoms when you will go the doctor ?

	Frequency	Percent
Immediate action	629	74.0
wait 2-3 days	190	22.4
wait 4-5 days	24	2.8
wait until the symptoms resolved spontaneously	7	.8

Number of children:		
	Frequency	Percent
1-2	143	16.8
3-5	375	44.1
Above 5	332	39.1

What action you prefer to do ?		
	Frequency	Percent
Go to Doctor	785	92.4
Wait and see	42	4.9
Herbal Medicine	23	2.7

In our research, 13.0% parents have observed multiple signs and symptoms, 20.% have observed fast breathing 14.% have observed fever, 10.% have observed convulsion all other signs are observed by less than 5.0% of the mothers (Figure 1).

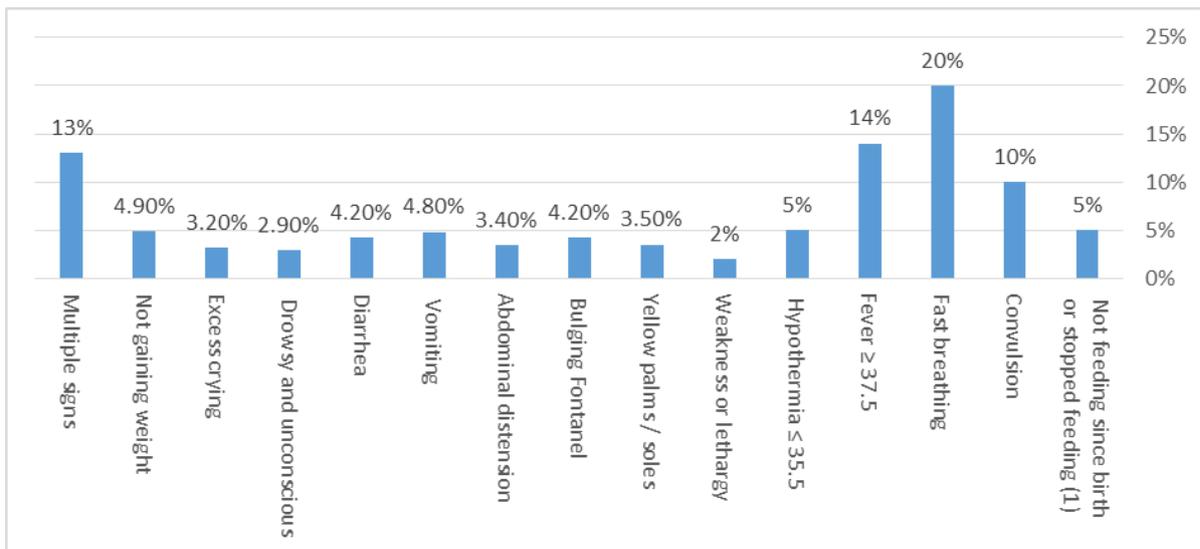


Figure 1: Participants' knowledge (recognition) of the neonatal danger signs

In our research, 58.52% have received information from doctors and hospital visits, 24.5% got information from family and friends, 13.4% from social media while 8.58% from internet (Figure 2).

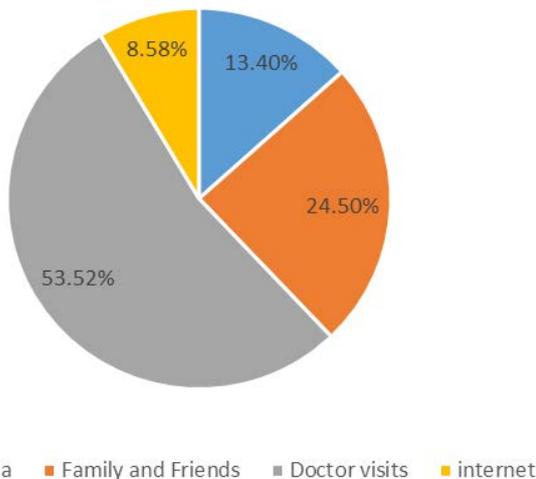


Figure 2: Source of information

In our research, we have observed significance differences while comparing information resources with living areas (village or city) (Table 3).

Table 3: Information Source

		Where do you live ?		Total
		City	Village	
Your information source :	Social Media	103	11	114
	Family and Friends	164	44	208
	Doctor visits	379	76	455
	internet	57	16	73
Total		703	147	850

p=0.04

DISCUSSION

This study assesses awareness among mothers in the Aseer region in Southern Saudi Arabia of the key danger signs of neonates. The analysis of the data collected shows that more than two thirds of the postnatal mothers who visited the two Maternity and Child Hospitals in Abha and Khamis Mushayt during the period between March 1 and December 31, 2020, have at least some knowledge of neonatal danger signs. It is found that the most important determinants for good maternal knowledge on NDSs are having secondary level education and above, maternal age, number of children, place of residence (city or village) and ANC attendance.

Almost 100% of the mothers reported that they have experienced at least one danger sign with their child, which corroborates proportion of women who appeared to know at least one danger sign. The percentage of women having knowledge of at least one danger sign in this study corroborates several previous studies^{14,15}. In contrast to our research findings, studies done in different settings like Ethiopia and Uganda have reported low proportions of mothers' knowledge of at least one danger sign^{16,17}. Adequate mother's and/or caregiver's knowledge of neonate danger signs is important for reducing infant mortality and morbidity. In this study, we assessed mother's knowledge of the key danger signs of infants. Slightly more than one-third of the women appeared to have a satisfactory knowledge of the neonate danger signs (knowledge of at least three signs) and the proportion of women with knowledge of each frequently reported danger sign was even less than fifty percent¹⁴⁻¹⁶.

In underdeveloped nations, the majority of newborn deaths occur at home, with up to two-thirds of these deaths preventable if prompt and effective health measures are adopted. Many of these deaths are the result of parents and caregivers failing to recognize the signs of a serious illness early on and delaying seeking medical help¹⁷.

The current study also found that a low level of mothers' knowledge of the neonate's danger signs even though most of them had attended the WHO recommended a minimum of four visits of antenatal care; this led to the assumption that the ANC staff may not have proper resources and training to educate mothers about NDSs. The low level of mothers' knowledge could be caused by their socioeconomic circumstances such as low level of education, employment status and proximity to urban areas.

CONCLUSION

Despite the fact that the participants had a lot of experience with neonatal danger signs, the proportion of mothers and caregivers who recognize at least three of them is still low in this community-based study. As a result, public health and educational policymakers in Saudi Arabia must explore adopting interventions techniques to improve mothers' knowledge and awareness of neonatal danger indicators in order to reduce infant mortality and morbidity. Training of health-care employees and building a strict supporting supervisory system for quality assurance should be the focus of such measures.

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