

**FACTORS ASSOCIATED WITH AWARENESS OF NEONATAL DANGER SIGNS AMONG WOMEN
ATTENDING A POSTNATAL CLINIC AT KANGOLE HC IV APAK DISTRICT.
A CROSS-SECTIONAL STUDY.**

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Abstract

Background

The ability to clinically recognize danger signs in neonates is an important step in reducing neonatal morbidity and mortality rates. The study assesses the factors associated with awareness of neonatal danger signs among women attending a postnatal clinic at Kangole HC IV Apak district.

Methodology

A descriptive cross-sectional study utilizing the quantitative method of data collection.

Results

The significant factor associated with awareness of neonatal danger signs was the provision of health education by health workers. Fever was known by the majority 8(27%) of the respondents, followed by difficulty in breathing, 4(17%); convulsions, 4(13%); anorexia, 3(10%); vomiting, 2(7%); and refusal to breast feed, 2(7%). the majority of 28(93%) of the respondents attended antenatal to be health educated on the neonatal danger signs while a few 2(7%) did not. Of 25(83%) respondents said that they delivered the baby from the health facility to get health workers' advice on care and identifying neonatal danger signs. The majority 17(57%) of the respondents said that their families were extended and that the funds were insufficient to cater for health services to get information from the hospital about neonatal danger signs, while a few 13(43%) said that they were not. The majority 20(67%) of the respondents resided in rural areas while a few 10(33%) resided in urban areas.

Conclusion

Exposure to knowledge and awareness of neonatal danger signs was limited to health centers and has not been largely rolled out to the general population yet the fight against neonatal mortality should involve combined efforts of both mothers, their families, and the general public.

Recommendation

The Ministry of Health should conduct radio/television talk shows that include panels of local leaders and technical experts discussing the importance of facility delivery for improving maternal and neonatal health outcomes and prevention of neonatal danger signs.

Keywords: Neonatal danger signs, Mortality rate, Kangole HC IV, Ministry of Health.

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Background

The ability to clinically recognize danger signs in neonates is an important step in reducing neonatal morbidity and mortality rates in both developed and developing countries. Knowledge of mothers' recognition of these neonatal danger signs early is very crucial in decreasing neonatal mortality but most studies show that mother's knowledge in recognition of these danger signs is very low (Madhikarmi, 2017). Globally the magnitude of neonatal mortality is very high. Every year an estimated four million children die during their first month of life and about half of these deaths occur during the first 24 hours. Most neonatal deaths around 99% occur in low and middle-income countries. The majority of these neonatal deaths occur at

home, indicating that few families recognize signs of newborn illness (Lawn *et al.*, 2020).

In European countries and other developed countries like China, health actors, including researchers, policymakers, and program implementers have been searching for new knowledge and technologies for child survival for many years. However, the issue of neonatal survival remains an unfinished agenda, mothers are still losing babies to health problems which can be prevented by identifying and managing neonatal danger signs early enough (Agardh, 2018).

Neonatal deaths mostly occur in Asia and Africa, caused by diseases that can be prevented and treated with quality health care, many women with low education levels are not knowledgeable about detecting neonatal danger signs.

Infectious diseases and neonatal complications play a great role in most neonatal and child deaths in low-income countries (Kabakyenga, 2020).

In Africa most newborn deaths occur at home, indicating that many families have a problem with recognition of danger signs of newborn illness, and the majority of the neonates are not taken to health facilities at the appropriate time when they are sick to get the necessary medical attention from qualified health workers (Sandberg, Pettersson, 2018).

The most common causes of neonatal death in Sub-Saharan Africa are birth asphyxia, premature, sepsis, and congenital abnormalities, neonatal health is influenced by many factors including not- attending antenatal care, unsupervised or poorly supervised home deliveries, poor cord care, prematurely, low birth weight, unpracticed exclusive breastfeeding and delays in recognition of danger signs in both neonates and pregnant mothers. Other factors like infrastructure and economic constraints contribute to high neonatal mortality (Khan, Das, & Khaliq, 2019).

Healthy behaviors, recognition of neonatal danger signs, awareness of key newborn health packages, and timely care-seeking are among the critical strategies for reducing neonatal mortality in Uganda (Mwase, 2019). In Uganda, antenatal care guidelines include client education and a counseling package for pregnant women. Therefore, women are expected to be taught the danger signs of neonatal illness during their antenatal visits. Education level, parity, age of the mother, place of living (urban or rural), place of birth (home-based or hospital), and attendance at an Antenatal clinic during pregnancy have a big impact on increasing maternal knowledge of neonatal danger signs. The study assesses the factors associated with awareness of neonatal danger signs among women attending a postnatal clinic at Kangole HC IV Apak district.

Methodology

Study design

The study was descriptive and cross-sectional. It used a quantitative method of data collection. It was cross-sectional because it was carried out in a short period. It was descriptive because it studied different variables such as socio-demographics, health behaviors, and cultural factors associated with awareness of women on neonatal danger signs.

Study setting

The study was conducted in, Kangole HC III Napak District, a mission Health Centre owned by UCMB in Moroto Archdiocese. It's a Private Not for Profit (PNFP) health center. It is committed to a holistic, integrated, and sustainable action in health, which includes treatment, prevention, and health promotion. The facility also offers community health services like home visiting, health education, school health, and malaria prevention and control. Antenatal, maternity, labor, and postnatal services. The health facility aims to promote access to health care for the less privileged and vulnerable social groups like women, children, the financially destitute, and the chronically ill. Since the patient is at the center of all activities of Kangole HC III.

Study population

Postnatal mothers attending Kangole HC III because they had neonates with health problems.

Sample size determination

The sample consisted of 30 respondents selected from postnatal mothers attending Kangole Health Centre III in Napak District.

Sampling procedure

A non-probability purposive sampling technique was used to obtain the sample size of 30 participants, all mothers attending the postnatal clinic who consented to the study were given a questionnaire to fill, out because they had neonates with health problems. This sampling method was good because it involved every respondent in this category and it gave respondents an equal chance of being involved in the study.

Inclusion criteria

All mothers attending the postnatal clinic with neonates with health problems in Kangole Health Centre III in Napak District in February 2023 were considered for the study.

Exclusion criteria

All post-natal mothers with very sick neonates and those who refused to consent to the study were not considered therefore were excluded from the study.

Independent Variables

Socio-demographic factors of women such as age, education level, parity, marital status, and knowledge.

Health-seeking behaviors of women with neonates, with danger signs. Accessing health facilities in long distances, making decisions to take babies to health facilities for treatment.

Cultural factors associated with awareness of neonatal danger signs; Norms, customs, and values.

Dependent Variables

Awareness of neonatal danger signs by women with neonates.

Research Instruments

A questionnaire comprising closed-ended questions was used to collect data as indicated in Appendix (I). With multiple choice questions which needed ticking the appropriate answers and semi-structured questions which needed detailed information. The questions were answered with the guidance of the researcher.

Data collection procedure

Permission to collect data was obtained from the administration of Kangole Health Centre III, to introduce the principal researcher to the In-charge who also introduced the researcher to the respondents. The principal researcher and the research assistants briefed the respondents about the study.

Data management

Data from each questionnaire was checked for completeness and accuracy before being entered into the computer by Excel version (2013) for final analysis. Missing gaps were corrected immediately.

Data analysis

Data was analyzed using SPSS version 18, and results were presented in the form of frequency tables, figures, and pie charts. Frequencies and percentages were realized for interpretation and establishing relationships between variables.

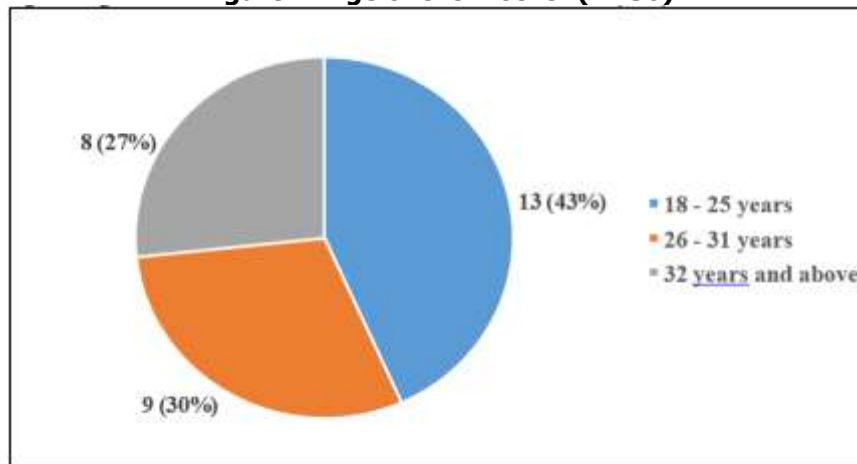
Ethical considerations

The study was presented to the research committee of Lubaga Hospital Training School. Following approval, the researcher obtained an introductory letter; and permission was sought from the administration to carry out the study. Verbal and written consent was sought from each respondent and confidentiality was assured.

RESULTS

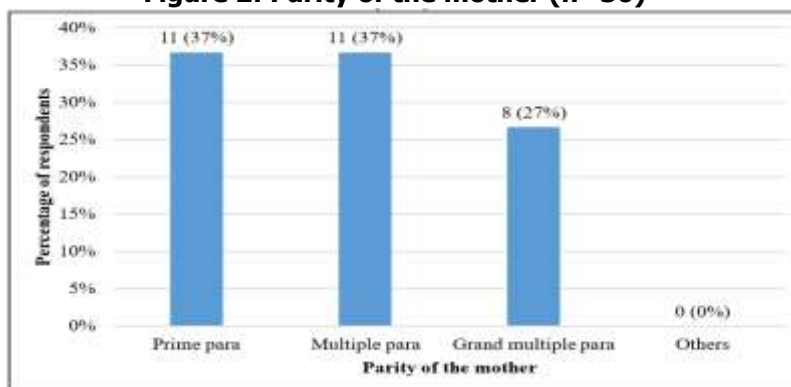
Socio-demographic factors of mothers associated with knowledge of neonatal danger signs Age of the respondent Findings about the age of the respondents.

Figure 1: Age of the mother (n=30)



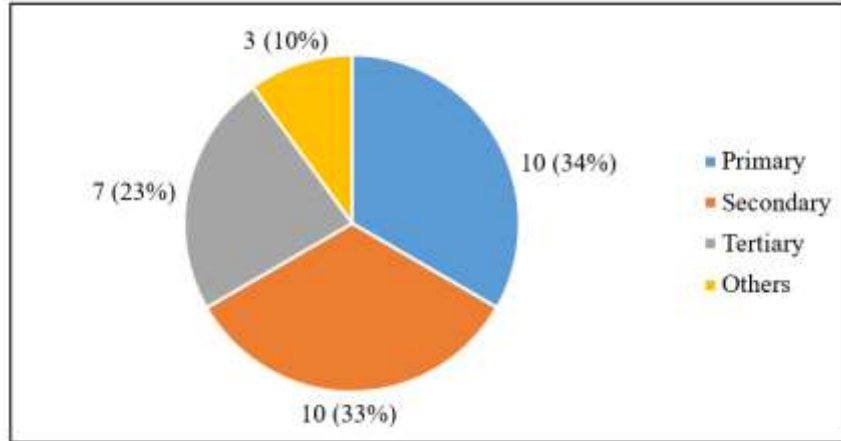
According to Figure 1, the majority 13(43%) of the respondents were of the age group 18 to 25 years, 9(30%) were of the age group 26 to 31 years, and 8(27%) were of the age group of 32 years and above.

Figure 2: Parity of the mother (n=30)



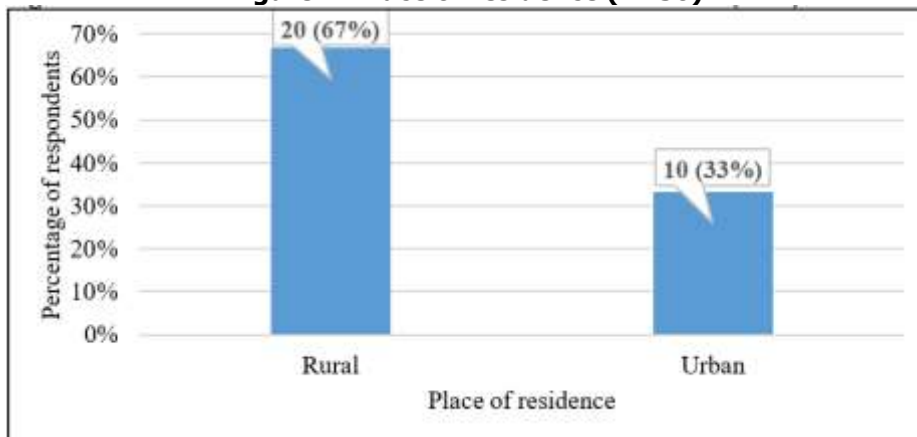
In Figure 2, 11(37%) of the respondents were prime para, 11(37%) were multiple para while the grand multiple respondents were 8(27%).

Figure 3: Education level (n=30)



In Figure 3, the percentage of respondents who had attained primary school 10(34%) was almost equal to that with secondary 10(33%). Those with tertiary level of education were 7(23%) and others were 3(10%).

Figure 4: Place of residence (n=30)



In Figure 4, the majority of 20(67%) of the respondents resided in rural areas while a few 10(33%) resided in urban areas.

Figure 5 Occupation of the mother (n=30)

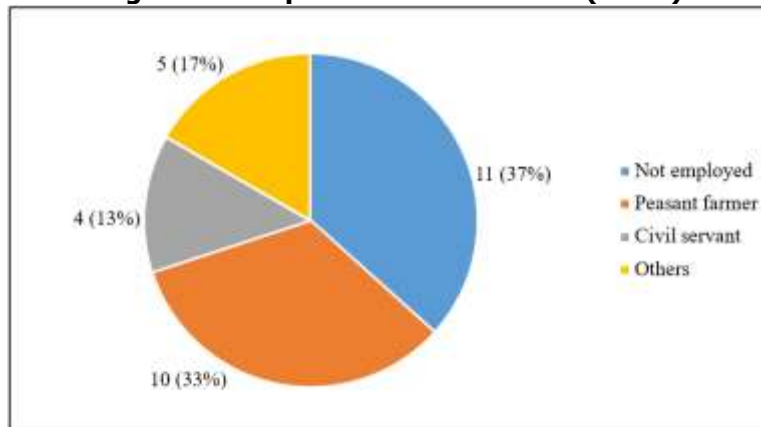
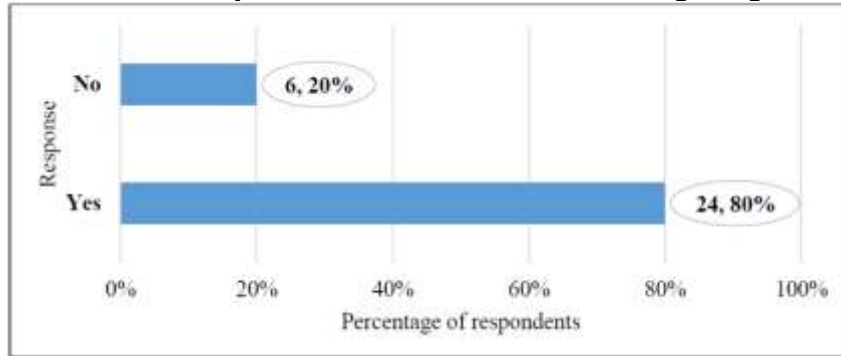


Figure 5 reveals that majority 11(37%) of the respondents were unemployed, 10(33%) were peasant farmers, 4(13%) were civil servants, and 5(17%) were involved in other occupations.

**Influence of health-seeking behavior on the awareness of neonatal danger signs
 Whether the respondents knew the neonatal danger signs**

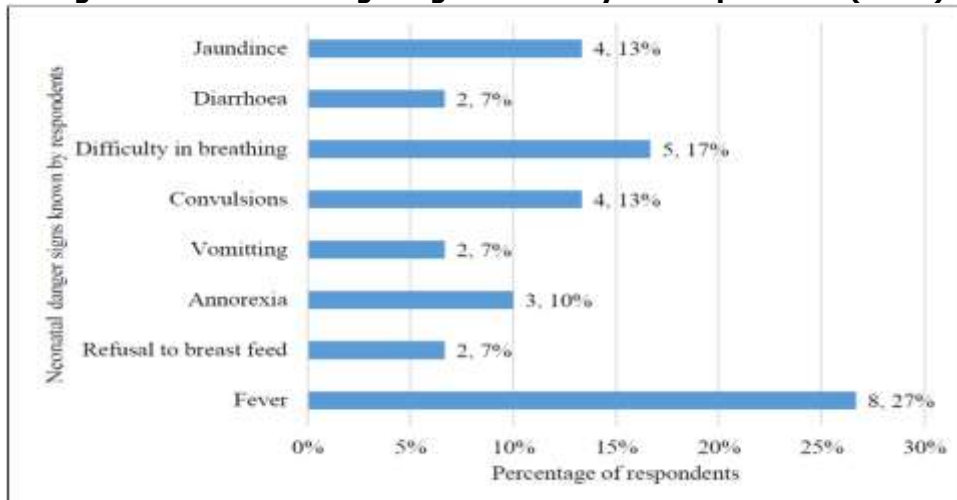
Figure 6: Whether the respondents know the neonatal danger signs (n=30)



In Figure 6, the majority 24(80%) of the respondents knew the neonatal danger signs while 6(20%) did not. Implying that some mothers are still ignorant about neonatal danger signs which shows a gap that needs to be mitigated.

Neonatal danger signs known by the respondents

Figure 7: Neonatal danger signs known by the respondents (n=24)



Results in Figure 7 highlight the neonatal danger signs that the respondents knew. Fever was known by the majority 8(27%) of the respondents, followed by difficulty in breathing, 4(17%); convulsions, 4(13%); annorexia, 3(10%); vomiting, 2(7%); and refusal to breast feed, 2(7%).

Whether the respondents attended antenatal to be health educated on the neonatal danger signs

Figure 8: Whether the respondents attended antenatal to be health educated on the neonatal danger signs (n=30)

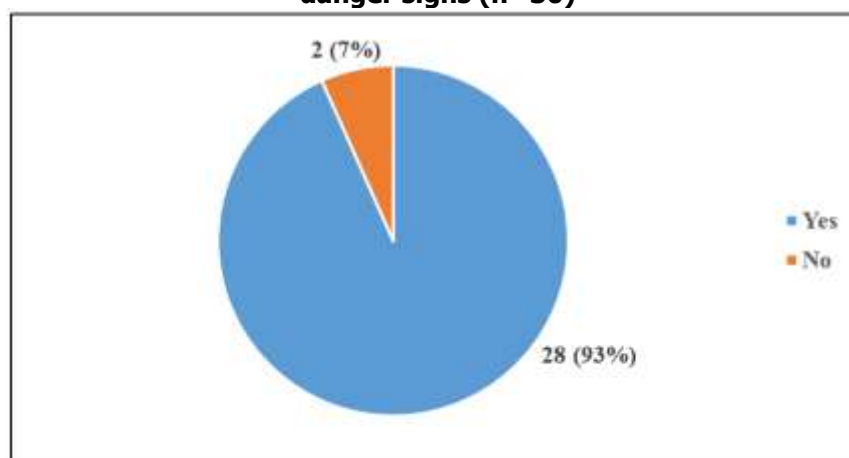


Figure 8 revealed that the majority 28(93%) of the respondents attended antenatal to be health educated on the neonatal danger signs while a few 2(7%) did not.

Table 1: More about the influence of health-seeking behavior on the awareness of neonatal danger signs (n=30)

Variable	Response	Frequency	Percentage (%)
Whether the respondents were given postnatal care by health workers to learn how to care for newborn babies including identifying neonatal danger signs	Yes	29	97
	No	1	3
	Total	30	100
Whether the respondents delivered the baby from the health facility to get health workers' advice on care and identifying neonatal danger signs	Yes	25	83
	No	5	17
	Total	30	100
Why some respondents did not deliver from the hospital to learn about neonatal danger signs	Insecurity at night	3	60
	Delivered on the way to the health centre	1	20
	Long distance	1	20
	Total	5	100
Whether the respondents decided by themselves to seek health services and get information on neonatal danger signs and newborn care	Yes	28	93
	No	2	7
	Total	30	100
Distance from home to the health facility	1Km	10	33
	2Km	2	7
	4Km	6	20
	5Km	5	17
	6Km	3	10
	15Km	2	7

	20Km	2	7
	Total	30	100
Whether the distance from home to the health facility favors you to seek information from the hospital about health issues including neonatal danger signs	Yes	16	53
	No	14	47
	Total	30	100

In Table 1, the majority of 29(97%) of the respondents said that they were given postnatal care by health workers to learn how to care for newborn babies including identifying neonatal danger signs while a few 1(3%) said that they were not given. In addition, the majority 25(83%) of the respondents said that they delivered the baby from the health facility to get health workers' advice on care and identifying neonatal danger signs whereas a few 5(17%) said that they did not. However, some respondents did not deliver from the hospital to learn about neonatal danger signs mainly due to insecurity at night, 3(60%); delivering on the way to the health center, 1(20%); and long distance, 1(20%). The

majority 28(93%) of the respondents decided by themselves to seek health services and get information on neonatal danger signs and newborn care while a few 2(7%) did not. Majority 10(33%) of the respondents' homes were one kilometer (Km) away from the health facility, 6(20%) were 4Km, 5(17%) were 5Km, 3(10%) were 6Km, 2(7%) were 2Km, 2(7%) were 15Km, and 2(7%) were 20Km. Meanwhile, the majority 16(53%) of the respondents said that the distance from their homes to the health facility favored them to seek information from the hospital about health issues including neonatal danger signs while 14(47%) said it did not

Cultural factors associated with knowledge of mothers on neonatal danger signs
Table 2: Cultural factors associated with knowledge of mothers on neonatal danger signs (n=30)

Variable	Response	Frequency	Percentage (%)
Whether delivering the baby outside the hospital affects the respondent's acquisition of knowledge on neonatal danger signs	Yes	16	53
	No	14	47
	Total	30	100
How delivering the baby outside the hospital affected the acquisition of knowledge on the danger signs by some respondents	No health education on danger signs	4	25
	Did not attend postnatal care	2	13
	No clear diagnosis in case of death	2	13
	Lack of information	3	19
	Poor delivery materials	1	6
	Did not get knowledge from healthcare providers	4	25
	Total	16	100

Findings in table.2 revealed that the majority 16(53%) of the respondents said that delivering the baby outside the hospital would affect their acquisition of knowledge on neonatal danger signs while a few 14(47%) said it would not. However, delivering the baby outside the hospital affected the

acquisition of knowledge on the danger signs by some respondents through the absence of health education on danger signs, 4(25%); failure to get knowledge from health care providers, 4(25%); lack of information, 3(19%);

inability to attend postnatal care, 2(13%); and poor delivery materials, 1(6%).

Table 3: Whether the respondents use local herbs to treat the baby which could mask the neonatal danger signs and they are not easily identified (n=30)

Response	Frequency	Percentage (%)
Yes	5	17
No	25	83
Total	30	100

Results in Table 3 show that the majority 25(83%) of the respondents said that they did not use local herbs to treat the baby which could mask the neonatal danger signs and they are not easily identified.

Table 4: More cultural factors associated with knowledge of mothers on neonatal danger signs (n=30)

Variable	Response	Frequency	Percentage (%)
Whether the respondents' families were extended, that the funds were not enough to cater for health services to get information from the hospital about neonatal danger signs	Yes	17	57
	No	13	43
	Total	30	100
Whether the respondents' marriages were polygamous, that the husbands could not support them in going to the hospital to get health information including neonatal danger signs	Yes	16	53
	No	14	47
	Total	30	100

Results in Table 4 revealed that the majority 17(57%) of the respondents said that their families were extended and that the funds were not enough to cater for health services to get information from the hospital about neonatal danger signs, while a few 13(43%) said that they were not. In addition, the majority 16(53%) of the respondents said their marriages were polygamous, and that their husbands could not support them to go to the hospital to get health information including neonatal danger signs, while a few said that they were not.

Discussion

Socio-demographic factors of mothers associated with knowledge of neonatal danger signs.

The study revealed that majority 43% of the respondents were of the age group 18 to 25 years, and it was said that young mothers are not aware of the danger signs. This could be due to limited attendance of health education talks from health workers and because they are not always experienced because they have not delivered many children who have presented with neonatal danger signs. This was consistent with findings carried out in Cameroon by (Rama

et al., 2020) where 24% of the younger mothers below the age of 24 years were not aware of the neonatal danger signs. The study revealed that 37% of the respondents were prime para and due to limited experiences, they were not aware of the danger signs, their lack of knowledge about neonatal danger signs could also be inadequate attendance to health care services. while the grand multiple respondents were 27% and seemed to be aware of the danger signs in newborns this was similar to Sandberg, and Pettersson, (2018) findings which concluded that parous women were aware of the neonatal danger signs because at least they stated three to five neonatal danger signs, and were prompt in seeking health services to save the lives of their newborn babies. The percentage of respondents who had attained primary school was 34% and due to their low level of education, they may not have known neonatal danger signs. These results were similar to the findings of the studies conducted in Mali, which showed that women with low levels of education were not able to identify neonatal danger signs despite their newborn babies having them (Nigatu, S, 2019). Yet those with a tertiary level of education were 23% and since these people have a knowledge base, they may easily identify at least a neonatal danger sign. Similar results were vailed in a report from Togo-Lome by Khan, Das, & Khaliq, (2019), which

said that mothers who had a tertiary level of education were more knowledgeable about the neonatal danger signs, and more so, the educated women were very easy to sensitize about neonatal danger signs and could easily identify them. At Kangole HC III Napak District, this study revealed that 67% of the respondents resided in rural areas and were staying far from health facilities so they had inadequate information about the care of the newborns from health workers since the distance traveled to the health facility was far and their health care attendance was limited. This was in line with the study conducted by Enuameh (2018) in Kenya, where mothers had little knowledge of neonatal danger signs. Because they were staying far from health facilities, they had inadequate information about the care of the newborn. Furthermore, 70% of the respondents had no formal employment (Unemployed and peasants). Mothers who were not employed were more likely to visit the health facilities, despite services being free of charge in public health facilities although were not aware of most neonatal danger signs the same way Yidana (2019) found from a report in Natal - South Africa.

The influence of health-seeking behavior on the awareness of neonatal danger signs

The study found that 80% of the respondents knew the neonatal danger signs. This could be because they attended antenatal care and were health-educated about neonatal danger signs or read the MCH booklet which had a positive influence on maternal knowledge of neonatal danger signs. This was in agreement with the study done in Kenya by Gathoni (2018) and another one done in Tanzania by Solomon et al., (2019) and Berhe et al., (2017), which also showed that mothers who attended ANC during the last pregnancy were two times more likely to know neonatal danger signs as compared to their counterpart who were fond of not attending antenatal to be prepared for childbirth.

The respondents of this study still highlighted the neonatal danger signs as fever at 27%, difficulty in breathing at 17%, convulsions at 13%, anorexia at 10%, vomiting at 7%, and refusal to breastfeed at 7%. These women had good knowledge about neonatal danger signs, and this could have been associated with health workers in the neonatal unit educating postnatal mothers about various topics including care of the newborn and identifying danger signs before discharging them to their homes. However, 20% were not knowledgeable about danger signs, implying that they were not educated about neonatal danger signs, and this can be mitigated similarly to a (Tuhina, 2019) study conducted in Zimbabwe, which showed such a gap.

The study further revealed that 93% of the respondents attended antenatal and were health-educated on the neonatal danger signs. This means that these mothers are likely to know neonatal danger signs. Similar results were found in a study done in Tanzania by Solomon et al., (2019) which showed that mothers who attended ANC during the last pregnancy were two times more likely to know neonatal danger signs as compared to their counterparts who were fond of not attending antenatal to be prepared for childbirth and care of the newborn baby. The (7%) did not

know neonatal danger signs which is reflected in the failure to attend antenatal the same way.

Yeshiwork, (2020) in Fitch town, revealed. In addition, 29(97%) of the respondents said that they were given postnatal care by health workers to learn how to care for newborn babies including identifying neonatal danger signs. Furthermore, 83% of the respondents said that they delivered their babies from the health facility to get health workers' advice on care and identifying neonatal danger signs. So indeed these respondents had good knowledge about neonatal danger signs. This was in line with a study conducted in Senegal by Berhe et al., (2017), where women who were seeking health services and delivering from health facilities were always knowledgeable about neonatal danger signs. However these results were contradictory to the study findings (Berhan, 2020) in Tog - Lome, where he ruled out that mothers were delivering from traditional birth attendants' places and didn't attend any antenatal to learn about neonatal danger sign therefore their knowledge was very low. Probably because these mothers were treating their babies the traditional way.

Meanwhile, 16(53%) of the respondents said that The results also determined that, 53% of the respondents said that delivering the baby outside the hospital would affect their acquisition of knowledge on neonatal danger signs the same way (Kindipple, 2018) established, while 47% said it would not. However, delivering the baby outside the hospital affected the acquisition of knowledge on the danger signs by some respondents through the absence of health education on danger signs, 25%; failure to get knowledge from health care providers, 25%; inability to attend postnatal care, 13%; and poor delivery materials, 6%. The distance from their homes to the health facility favored them to seek information from the hospital about health issues including neonatal danger signs the same way Dadi, (2019), affirmed in the study done in Cameroon. 47% were staying far from the facility so their knowledge about neonatal danger signs was inadequate, this could be because they could only come to the health facility when they have a serious problem.

Cultural factors associated with knowledge of mothers on neonatal danger signs

In Kangole HC III, (83%) of the respondents said that they did not use local herbs to treat the baby which could mask the neonatal danger signs to be easily identified. These respondents sought health care from health facilities. This could be because if they took their babies to an herbalist who could not healthily educate them about newborn care and neonatal danger signs, their babies would be in danger of death and complications of neonatal danger signs. This is similar to a study conducted in Mongolia by Mamura Kenshiro (2020) which found that women from different cultural groups were using health facilities for antenatal, and post-natal and were taking their babies to health facilities with qualified health workers who sensitized them about neonatal danger signs such as hypothermia, hypoglycemia, vomiting feeds, convulsions and refusal to breastfeed are neonatal danger signs.

17% of the respondents were using local herbs for their children and did not know the danger signs, the same way

Bhutta (2019) of Swaziland affirmed that women who were using local herbs in different cultural groups were not knowledgeable about neonatal danger signs.

Findings from the study further revealed that 57% of the respondents said that their families were extended and that the funds were not enough to cater for health services to get information from the hospital about neonatal danger signs so their knowledge was low, this could be that it's their husbands and relatives who were making decisions for the family even on health-related issues. These results were similar to the ones from a study done in the Central African Republic by Kuganab (2020) communities with a culture of suppressing women contributed to the failure of women to identify neonatal danger signs, many of the younger mothers were not educated, could not decide on their own were to seek medical care, it's the husband and relatives who were making decisions for the family even on health-related issues.

Conclusion

Exposure to knowledge and awareness of neonatal danger signs was limited to health centers and has not been largely rolled out to the general population yet the fight against neonatal mortality should involve combined efforts of both mothers, their families, and the general public.

Recommendations.

Recommendations to the ministry of health

The Ministry of Health should conduct radio/television talk shows that include panels of local leaders and technical experts discussing the importance of facility delivery for improving maternal and neonatal health outcomes and prevention of neonatal danger signs.

Seeking timely and appropriate health care with the full support of husbands is more of a cultural issue, National, regional, and local initiatives are required to address each of these cultural barriers, with an emphasis on community sensitization programs tailored to men and opinion leaders for encouraging women to seek health care services rather than using herbal medicines, for a maximum impact.

The provision of adequate health education about neonatal danger signs during antenatal and postnatal care can have a great impact on women's and child health. Healthcare providers to provide several outreaches to create awareness about neonatal danger signs such that all receive adequate knowledge.

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Conflict of interest

No conflict of Interest

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References

- 1) Agardh A. Sandberg J, Odberg Pettersson K (2018) Inadequate Knowledge of Neonatal Danger Signs among Recently Delivered Women in Chad - Ndjamena: A Community Survey.
- 2) Berhan, Sharma S. (2020). Knowledge and Practice of Postnatal Mothers on New Born Care at Hospital Setting. Togo Lome Journal of Nursing and Healthcare, 2(1): 25-30.
- 3) Berhe Abebaw G and Abel F. et al (2017) Level of mother's knowledge about neonatal danger signs and associated factors in Senegal.
- 4) Bhutta, Yeshiwork E. (2019). Assessment level of knowledge and practice of essential newborn care and its determinants among recently delivered women in Swaziland.
- 5) Enuameh, Garg B. (2018) Awareness and health care seeking for newborn danger signs among mothers in peri-urban Wardha. Kenyan journal of pediatrics, 76(7): 691-693.
- 6) Gathoni Fisseha M. (2018). Assessment of knowledge and health care seeking behavior about neonatal danger signs among mothers visiting immunization units in selected governmental health centers Nakuru Central District, Kenya.
- 7) Kabakyenga, Worku, A. G., & Dadi, A. F. (2020). Level of mother's knowledge about neonatal danger signs and associated factors.
- 8) Khan, Das, & Khalique, (2019) Knowledge Regarding Newborn Danger Signs among Antenatal Mothers Attending the Patient Department in Dhulikhel Hospital.
- 9) Kindipple, Benjamin BA. (2018) A descriptive study on newborn care among postnatal mothers in selected maternity centers in Gambia.
- 10) Kuganab, Ronald (2020) Young Infants Clinical Signs Study Group. Clinical signs that predict severe illness in children under age 2 months, a Central African Republic study. 371(9607): 135-142.
- 11) Lawn JE, Worku, A. G., & Dadi, A. F. (2020). Level of mother's knowledge about neonatal danger signs and associated factors in Denmark.
- 12) Madhikarmi Feyisso, M., & Addisu, Y. Prabhancha (2017). Danger signs of neonatal and postnatal illness and health-seeking. Journal of Current Research, 8(01), 25466-25471.
- 13) Mamura Kenshiro, rajapati, R., & Madhikarmi, S. (2020). Knowledge Regarding Newborn

- 14) Mwase, Ejdemyr, S., & Beise, J. (2019). Levels and trends in child mortality. Estimates developed by the UN
- 15) Nigatu, S, Worku AG, Dadi AF. (2019) Level of mother's knowledge about neonatal danger signs and associated factors in Mali: a community-based study.
- 16) Rama Worku A, Dadi A., *et al* (2020) Level of mother's knowledge about neonatal danger signs and associated factors in Cameroon.
- 17) Sandberg, Pettersson, Obumneme-Anyim (2018) Mothers' recognition of newborn danger signs and health-seeking behavior.
- 18) Solomon Pettersson K.A. *et al* (2019) Inadequate Knowledge of Neonatal Danger Signs among Recently Delivered Women in Tanzania.
- 19) Tuhina, Anmut W, Fekecha B, Demeke T. (2019) Mother's knowledge and practice about neonatal danger signs and associated factors in Zimbabwe
- 20) Worku A, Dadi, Mauritenous Mulatu F. (2019) Assessment of knowledge and health care seeking behavior about neonatal danger signs among mothers visiting immunization units in selected Governmental Health Centers.
- 21) Yeshiwork, Oromia Adem N, (2020). Awareness and associated factors towards neonatal danger signs among Mothers Attending Public Health Institutions
- 22) Yidana, Tilahun W. (2019) Assessment of knowledge and practice of neonatal care among post-natal mothers attending in Natal - South Africa.

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