KNOWLEDGE REGARDING OBSTETRIC DANGER SIGNS AMONG MOTHER ATTENDING ANTENATAL CLINIC AT SCHEER MEMORIAL ADVENTIST HOSPITAL, BANEPA, KAVRE

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ABSTRACT

Knowledge about obstetric danger signs is very crucial for preventing obsterric complication. Globally there was 211 maternal deaths per 1,00,000 live birth in 2017. The maternal mortality ratio for Nepal is 239 deaths per 1,00,000 live births in 2016. A descriptive cross sectional study was conducted to assess the knowledge regarding obstetric danger signs among pregnant mother attending ANC at Scheer Memorial Adventist Hospital, Banepa, Kavre, Nepal. Total 100 respondents were selected using non probability purposive sampling technique through a semi-structured interview questionnaire. Data were analyzed in SPSS-16 using descriptive statistics (mean, frequency, standard deviation and percentage) and inferential statistic Chi Square. The study shows that mean age of the respondents was 25.56±4.307. More than half of the respondents (53%) were from 15-25 age group. Majority of respondent (97%) were literate. Fifty six percent of respondents had adequate knowledge on obstetric danger signs, while 27% of respondents had moderate knowledge and few respondents (17%) had inadequate knowledge. There is no any significant relationship with knowledge with selected variable age, educational status, gravida, week of gestation and -number of ANC visit. Thus it is concluded about that the entire pregnant mother requires some interventions for the awareness regarding obstetric danger signs from the beginning of ANC visit. ANC visit should be focused more than eight times as recommended by WHO.

KEYWORDS

Pregnant mother, knowledge, obstetric danger signs

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INTRODUCTION

Obstetric danger signs are the symptoms which can be easily identified even by non-clinical personnel. The danger signs during pregnancy include: Severe vaginal bleeding, swollen hands/face, Blurred vision, during labor include: Severe vaginal bleeding, Prolonged labor (>12 hours), Convulsions, Retained placenta and during the postpartum period include: Severe vaginal bleeding, Foul-smelling vaginal discharge, High fever.[1]

A maternal death is the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management. Direct obstetric death includes haemorrhage, sepsis, eclampsia, obstructed labor and complications of unsafe abortion. Indirect obstetric deaths include malaria, anemia, HIV/AIDS, and cardiovascular disease.[2]

The global MMR in 2017 is estimated at 211 maternal deaths per 100 000 live birth. Sub-Saharan Africans suffer from the highest maternal mortality ratio – 533 maternal deaths per 100,000 live births a year. South Asia follows, with a maternal mortality ratio of 163. Haemorrhage remains the leading cause of maternal mortality, accounting for over one quarter (27 per cent) of maternal deaths.[3]

In many developing nations including Ethiopia, maternal mortality yet remains a significant burden and therefore change towards Millennium Development Goal (MDG) five has been particularly disregarded. Maternal mortality ratio (MMR) is 15 times higher in developing countries compared to developed countries. The magnitude of maternal mortality and morbidity in Ethiopia are among the highest in the globe.[4]

Globally 800 million women die due to preventable causes related to pregnancy and childbirth; 20% of which occur in India.[5] It was reported that in India around 44,000 women die due to pregnancy and childbirth related complications. The high number of maternal deaths in some areas of the world reflects inequities in access to health services, rampant illiteracy, ignorance and gender inequality. The risk of maternal mortality is highest for adolescent girls under 15 years of age.[5]

The maternal mortality ratio (MMR) for Nepal is 239 deaths per 100,000 live births in 2016. Nepal has committed to doing its part to achieve Sustainable Development Goal (SDG) target 3.1 of reducing the global MMR to less than 70 maternal deaths per 100,000 live births by 2030.[6] To achieve this ambitious target, Nepal will need to reduce its MMR by at least 7.5% annually addressing severe inequities in maternal health access, utilization and quality.

Maternal mortality in resource poor nations has been attributed to three delays: delay in deciding to seek care, delay in reaching to seek care on time, and delay in receiving adequate treatment. Among all, the major cause for first delay is lack of awareness about obstetric danger signs to decide to seek care among mothers and community. Women's knowledge about danger signs of obstetric complications is profoundly important to enhance utilization of skilled care during delivery and to seek emergency obstetric services.[7]

A study conducted in Shashamane town, Ethiopia showed that 59.5% of the respondents were found to have poor knowledge of obstetric danger signs. Majority of respondents mentioned vaginal bleeding (64.7%) as a danger sign of pregnancy.[8] A community based cross sectional study in Northern Ethiopia revealed that out of 563 pregnant women only 211 (37.5%) women were knowledgeable about obstetric danger signs where majority of the respondents mentioned vaginal bleeding as danger sign during pregnancy (72.6%), delivery (65.9%), and postpartum period (76.4%).[9]

An Institutional cross-sectional study conducted at ANC of Dhulikhel Hospital, Nepal showed that among 300 pregnant woman, the two third of the respondents (66.0%) had adequate knowledge on obstetric danger signs, while 21.0% of respondents had inadequate knowledge and few respondents (13.0%) had moderate knowledge on that.[11]

At the global level, women's knowledge about obstetric danger signs has been related to number of factors. Women who experienced obstetric complications during the previous pregnancies, number of ANC visit are more knowledgeable about obstetric danger signs. Similarly maternal socio-economic factors like job, education are also reported in several studies as affecting women's knowledge about obstetric danger signs.[12]

MATERIALS AND METHODS

The descriptive cross sectional research design was used in this study. The Institunal Review Committee of Sheer Memorial Hospital College of Nursing approved the study protocol. The verbal consent was given by participants. All

invited participants were informed about nature, purpose and procedure of the study. Data collection was done among 100 pregnant mother attending at ANC clinic of Scheer Memorial Adventist Hospital, Banepa using purposive sampling technique. A standardized tool, which was developed by the Maternal Neonatal Program of Johns Hopkins Program for International Education in Gynecology and Obstetrics (JHPIEGO), was adopted and some modification was done as per needed.

Data was collected by face to face interview technique. Inclusion criteria was all the reproductive age of pregnant mother who are willing to participate and are attending in ANC OPD for antenatal checkup. Those who are severely ill, unable to hear, unable to respond to the questions was excluded in the study. All collected data was reviewed and checked daily for its completeness, consistency and accuracy. Data was edited, organized and coded. SPSS-16 was used for the data analysis. Statistical tests: Descriptive statistics (mean frequency, standard deviation and percentage) and inferential statistics (chi-square test) was applied. The level of knowledge on obstetric danger sign is categorized in three parts as:[19]

1. Inadequate knowledge - <50% of correct score of despondence
2. Average knowledge - 50 to 75% of correct score of despondence
3. Adequate knowledge - >75% of correct score of despondence

RESULTS

The socio-demographic characteristic of the participants revealed that more than half of the i.e. 53% of the respondents belongs to age group 15-25 and 47% belongs to age group 26-36. The mean age is 25.56 (SD: 4.307), the maximum age was 36 and the minimum age was 16. Regarding educational statutes of despondence, 97% of respondents were literate and only 3% were illiterate. Among the literate, 5% can just read and write, 15% had basic level, 53 has higher secondary level, 24 has studied university/ college level or above. Regarding number of ANC visit that is 73% of the respondent had visited ANC more than 8 times and 27% of them had visited ANC less than 8 times. It indicates that majority of respondent had done ANC visit more than 8 times.

Majority of respondent have adequate level of knowledge on obstetric danger signs i.e. 56% while only 17% respondents have inadequate level of knowledge on obstetric danger signs and remaining 27% have average level of knowledge. The overall mean knowledge score on obstetric danger signs was 26.41 and standard deviation was 7.59 with maximum score 36 on respondent knowledge related question of obstetric danger signs and minimum score 10.

The overall knowledge on danger sign is presented in Table 1. The majority of respondent i.e. 96% mentioned high fever

Table 1: Distribution of respondent's knowledge on obstetric danger signs during pregnancy (n=100)

Variable	n	%
Severe headache	66	66
Blurred vision	63	63
Severe abdominal or pelvic pain	84	84
Swollen hands/face, feet/ankle	67	67
Decreased or loss of fetal movement	94	94
Convulsion	71	71
Loss of consciousness	96	96
Leaking (water broke)	88	88
Foul vaginal discharge	94	94
High fever	96	96
Severe nausea and vomiting	66	66
Vaginal bleeding	95	95

Table 2: Distribution of respondent's knowledge on obstetric danger signs during labor and childbirth (n=100)

Variable	n	%
Severe headache	58	58
Blurred vision	61	61
convulsion	74	74
loss of consciousness	88	88
Severe nausea and vomiting	71	71
Decreased or loss of fetal movement	91	91
High fever	90	90
Vaginal bleeding	88	88
Cord prolapse	83	83
Malpresentation	98	98
Labor lasting more than 12 hours	79	79
Placenta not delivered after 30 minute	79	79

Table 3: Distribution of respondent's knowledge on obstetric danger signs during post partum period (n =100)

Varible	n	%
Severe headache	74	74
Blurred vision	69	69
Severe abdominal or pelvic pain	91	91
Swollen hands/face, feet/ankle	71	71
Severe weakness	91	91
Convulsion	89	89
loss of consciousness	94	94
Difficulty in breathing	97	97
Severe nausea and vomiting	75	75
Foul vaginal discharge	86	86
High fever	96	96
Severe vaginal bleeding	96	96

and loss of consciousness as a danger signs during pregnancy. About 95% of respondent were aware of vaginal bleeding as a danger signs followed by decreased or loss of fetal movement (94%) and foul vaginal discharge (94%). About 84%, 88%, 71% of the respondents reported severe abdominal pain, leaking (water break), convulsion whereas 66%, 63%, 66% of respondent reported severe headache and blurred vision and severe nausea and vomiting respectively.

Table 2 shows that, the majority of respondent i.e about 98% mentioned malpresentation as a danger signs followed by decreased or loss of fetal movement (91%), high fever(90%). Likewise 88% reported vaginal bleeding and loss of consciousness. The least mentioned danger signs were severe headache i.e 58% followed by blurred vision (6%).

The Table 3 indicates that during post partum majority of respondent i.e. 97% identified difficulty in breathing as a danger signs followed by high fever (96%) and severe vaginal bleeding (96%). About 94 % mentioned loss of consciousness and 91% reported severe weakness and severe abdominal or pelvic pain. Similarly, about 74%, 71% were aware of severe headache and swollen hands/face, feet/ankle respectively.

In the Table 4, Chi-square test was used to find out the association between knowledge score and selected demographic variable. The

Table 4: Association of knowledge on obstetric danger signs with selected socio demographic variable (n =100)

Variable	< 50%	> 50%	p-value
Age			
15-25	12 (12%)	41 (41%)	0.2
26-36	6 (6%)	41 (41%)	
Education of pregnant mother			
Illeterate	1 (1%)	2 (2%)	0.4
Literate	17 (17%)	80 (80%)	
Gravida			
Primigravida	10 (10%)	46 (46%)	0.9
Multigravida	8 (8%)	36 (36%)	
Week of gestation			
11-25	8 (8%)	27 (27%)	0.3
26-40	10 (10%)	55 (55%)	
Number of ANC visit			
< 8 times	6 (6%)	21 (21%)	0.5
> 8 times	12 (12%)	61 (61%)	

findings revealed that there is no significant relation between knowledge score and selected demographic variables i.e. age (p value=0.2), education (p value=0.4), gravid (p value=0.9), week gestation (p value=0.3) and number of ANC visit (p value=0.5) since p value is more than 0.05.

DISCUSSION

The findings of the study revealed that more than half (53%) of the respondents were from age group 15-25 years with the mean age 25.56.±4.30 which was consistent with the study done by Felix *et al*,[25] in India (2018). 56% of respondents were from 15-25 age group with the mean age 26.11±6.27.

The findings of present study revealed that during pregnancy, about 95% and 71% of the respondents mentioned vaginal bleeding and convulsion as a danger signs which was supported by the study done by Dessu *et al*,[30] in Southern Ethopia where 98.3% and 80% of the respondent mentioned vaginal bleeding and convulsion as a danger signs during pregnancy. In the present study, 79% of the respondents mentioned placenta not delivered after 30 minutes of child birth as a danger signs during labor and this is consistent with the study done by Bhumi *et al*,[24] in India (2018) which showed

that 70% of respondents mentioned placenta not delivered after 30 minutes of child birth as a danger signs during labor.

In this study majority of respondents 96% mentioned vaginal bleeding as a danger signs during post partum period which was consistent with the study done by Thapa *et al*,[11] in Dhulikhel, (2017) which showed that 88.3% of respondents mentioned Vaginal bleeding as a danger signs during post partum period.

In this study 56% have adequate level of knowledge regarding obstetric danger signs which was consistent to the findings by Amenu *et al*,[7] done in Northwest Ethiopia i.e is 55.1%. The result is also supported by the study in Mangalore by Haleema *et al*,[19] (2019) which was 54.7%. This study revealed that there is no significant relation between knowledge score and selected demographic variables i.e. age (p value=0 .2), educational status of pregnant mother (pvalue = 0.4), gravid (p value = 0.9) and gestational age (p value = 0.3) and this result was supported by the study of Haleem *et al*, in India (2020) as p value were 0.819 (age), 0.113 (education). 0.07 (gravida) and 0.227 (gestational age).[19] In this study, there is no significant difference in knowledge regarding obstetric danger signs among pregnant mother based on age (p= 0.2), number of ANC visit (p value=0.5) and this was consistent by the study done by Nagar *et al*,[23] in Egypt (2017) where statistically there was no significant difference in knowledge regarding obstetric danger signs among pregnant mother based on age (p=0.946) and, number of ANC visit (p value=0.191).

The study showed that there is no significant difference in knowledge regarding obstetric danger signs among pregnant mother based on age (p= 0.2). This was consistent with the study of Egypt Phanice *et al*,[21] (2018) where statistically there was no significant difference in knowledge regarding obstetric danger signs among pregnant mother based on age (p=0.184).

Based on the findings of the study, it showed that more than half of the majority i.e 53% of the respondents belongs to age group 15-25 and about 47% belongs to age group 26-36. The mean age is 25.56 (SD: 4.307), the maximum age was 36 and the minimum age was 16. Most of the respondents' i.e 97% were literate. Among 100 respondents, 56% were primigravida, 44% were multigravida.

This study showed that there is no significant relation between knowledge score and selected demographic variables i.e. age (p value= 0.2), educational status of pregnant mother (p value= 0.4), gravida (p value= 0.9), gestational age (p value=0.3 and number of ANC visit(p value=0.5). Thus, it can be concluded that all the pregnant mother requires some interventions for the awareness regarding obstetric danger signs from the beginning of ANC visit. ANC visit should be focused more than 8 times as recommended by WHO.

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