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KNOWLEDGE OF OBSTETRIC DANGER SIGNS AND ITS ASSOCIATED FACTORS AMONG PREGNANT WOMEN IN RWAMAGANA DISTRICT, RWANDA

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Abstract
Obstetric danger signs are warning symptoms of the imminence of a possible threat relating to the situation of the pregnancy. Evidence shows that women with better knowledge of obstetric danger signs have improved healthcare-seeking behaviors than their counterparts with limited knowledge. Yet, the knowledge of obstetric danger signs in Rwamagana are unknown, limiting any interventions to decrease maternal mortality. This study will fill the existing gap of knowledge on this matter in Rwanda in general and in Rwamagana District in particular. The study aims at determining the level of knowledge of obstetric danger signs among pregnant women attending antenatal care in selected health centers of Rwamagana District, Rwanda and identifying the factors associated to that knowledge. A cross sectional study design was used with a quantitative approach. The study focused on 3,898 women. The sample has been obtained based on Cochrane formula and the calculation gave 424 women. All ethical requirements were respected. The findings showed that the respondents with low level of knowledge were 32.8% while the respondents with high level of knowledge were 67.2%. being aged 35 years old and above was three times more likely to be associated with the high level of knowledge on obstetric danger signs with AOR 3.869 95% CI (2.158-6.935), p<0.010. Married/cohabiting participants were twice more likely to be associated with the high level of knowledge on obstetric danger signs with AOR 2.373 95% CI (0.205-3.679), p<0.002. Also, having done 4 ANC visits and above was three times more likely to be associated with the high level of knowledge on obstetric danger signs with AOR 3.824 95% CI (2.492-5.868), p<0.001. Multiparous participants were twice more likely to be associated with the high level of knowledge on obstetric danger signs with AOR 2.333 95% CI (1.543-3.530), p<0.001. Also, having studied at secondary and university was three times more likely to be associated with the high level of knowledge on obstetric danger signs with AOR 3.646 95% CI (2.809-8.234), p<0.001 and participants residing in urban area were three times more likely to be associated with the high level of knowledge on obstetric danger signs with AOR 3.812 95% CI (2.283-6.366), p<0.001. In sum, the study revealed that about three quarters of the respondents have a high level of knowledge on obstetric danger signs. As recommendation, the government should increase the sensitization on the importance of respecting the 4 ANC visits recommended by the WHO.
Keywords: Knowledge, Obstetric Danger Signs, Pregnant Women.

INTRODUCTION

The complications from pregnancy and childbirth are the leading causes of maternal deaths in low-and middle-income countries (LMIC) (Said et al., 2020). Evidence shows that most maternal complications during pregnancy are preventable via timely recognition of danger signs and effective interventions at health facilities (Khan et al., 2016). The danger signs during pregnancy and after delivery are the warnings of imminent or ongoing life-threatening events requiring quick intervention by skilled healthcare providers (WHO, 2020). The lack of knowledge of Obstetrical Danger Signs (ODS) coupled with additional factors such as high cost of care and long distance to health facilities lead to hesitation and delay in seeking care, contributing to higher maternal mortality (Bililign et al., 2017). Any efforts to reduce maternal mortality must include improving maternal knowledge of the common complications during pregnancy, labor, and after delivery to ensure women prioritize seeking care when required.

Globally, an estimated 10.7 million mothers died from 2010 to 2020 due to obstetric complications according to the World Health organization (WHO) (WHO, 2021). According to the same organization, maternal mortality remains high in developing countries. In 2020, approximately 99% of the global maternal deaths occurred in developing countries with majority of these deaths occurred in sub-Saharan Africa where the majority of women lack knowledge about obstetric danger signs (WHO, 2021). About 73% of all maternal deaths were due to direct obstetric causes such as severe hemorrhage, pregnancy induced hypertension, unsafe abortion, complications from delivery and maternal infections (UNFPA, 2021).

Between 2010 and 2020, Africa reduced maternal mortality by 41%. Over the same period, it also reduced under-five mortality by 33%. Despite the progress made, 57% of all maternal deaths

occur on the continent, making Africa the region of the world with the highest maternal mortality ratio. Maternal mortality rates vary from country to country. While one in 4,700 women is at risk of dying from pregnancy-related complications in the industrialized world, one in 39 African women is at the same risk (WHO, 2020).

In Rwanda, since 2010, the country has seen a 55 per cent decline in the maternal death ratio – an enormous success which qualified Rwanda to be among the nine developing countries which achieved the millennium development goals 4 and 5 (MDGs). In spite of these gains, the maternal mortality ratio remains high at 210 deaths per 100,000 live births and requires to triple efforts if the country has to achieve the Sustainable Development Goal on maternal deaths of 70 per 100,000 live births (MoH, 2020).

Knowledge of the danger signs of obstetric complications is one aspect of obstetric problem recognized at the individual, family and community level (Say et al., 2018). The danger signs could occur during pregnancy (vaginal bleeding, swollen hands/face, decreasing fetal movement and blurred vision), delivery (vaginal bleeding, prolonged labor, convulsions and retained placenta) and post partum period (vaginal bleeding, loss of consciousness and fever) (Damme, 2016). While most women have uneventful pregnancies and childbirth, all pregnancies are at risk and around 15% of pregnant women will develop a potentially life-threatening obstetrics complication that requires obstetrical interventions to survive (Perreira, 2019).

Knowledge of the danger signs of obstetric complications is essential for early recognition of the problem, appropriate and timely referral to obstetric care (Wafaa, 2017). This will help to achieve the target of reducing global maternal mortality to less than 70 maternal deaths per 100,000 live births by 2030 (WHO, 2015). However, previous research conducted in developing countries showed a low status of women knowledge on danger signs during pregnancy, delivery and postpartum period. For instance, study done in rural Uganda showed that only 19% of women had knowledge of three or more key danger signs during pregnancy, delivery and post-partum period (Kabakyenga et al., 2011).

Although raising women's knowledge of obstetric danger signs is important to reduce maternal deaths, there are limited studies in Rwanda that assessed knowledge of obstetric danger signs and associated factors. This study therefore aimed to investigate the knowledge of obstetric danger signs and associated factors among pregnant women attending antenatal care in selected health centers of Rwamagana District in the Eastern Province of Rwanda.

Several factors predict women's knowledge of ODS and could guide where to target interventions. According to a study conducted in Ethiopia, the attendance of Antenatal Care (ANC) was associated with 26% higher knowledge, and women who delivered at the health facility were three times more likely to be knowledgeable of ODS (Jewaro et al., 2020). Other factors such as the level of education among women, urban, and occupation were associated with maternal knowledge of ODS (Jewaro et al., 2020). Strengthening ANC and multi-sectoral involvement by ensuring adequate education of the ODS may increase early recognition of complications and timely healthcare-seeking behaviors, thereby significantly decreasing maternal mortality. Unfortunately, other factors are unknown in many other SSA countries, which hinders the interventions towards preventing maternal mortality. In Rwanda, 203 women die for every 100,000 live births (NISR, 2020). This rate is higher In Rwamagana District compared to the national average. In this District, 298 women die for every 100,000 live births (NISR, 2020).According to the Rwanda Demographic Health Survey (2019–2020), the most common maternal mortality causes are delays in seeking care (NISR, 2020). The value of women's awareness and early recognition of ODS cannot be overstated. Evidence shows that women with better knowledge of ODS have improved healthcare-seeking behaviors than their counterparts with limited knowledge (Benimana et al., 2018). Yet, the maternal knowledge of ODS in Rwamagana is unknown, limiting any interventions to decrease maternal mortality. Accordingly, the current study aimed to assess pregnant women's knowledge of ODS during pregnancy, labor and delivery, and the postpartum periods and associated factors. This study will fill the existing gap of knowledge on this matter in Rwanda in general and in Rwamagana District in particular.

MATERIALS AND METHODS

2.1 Research design

In this study, the researcher used a cross-sectional research design and adopted a quantitative research approach.

2.2 Participants

The study focused on 3,898 women having attended antenatal care in Rwamagana, Ruhunda, Gishari, Rubona and Munyaga health centers in 2022. The sample has been obtained based on Cochrane formula and the calculation gave 424 women (Health Unit Data, 2024).

2.3 Research instruments

Data collection was conducted using a structured, self-administered or closed-ended questionnaire on knowledge on obstetric danger signs which were distributed among the women attending antenatal care services in selected health centers of Rwamagana District (Baseer et al., 2012). The research tool is divided into four parts: The first part is related to demographic information such as age, gender, education level, marital status, and religion. The second part consists of questions assessing knowledge about obstetric danger signs. The questionnaire was used because it offers a fast, efficient and inexpensive means of gathering large amounts of information from sizeable sample volumes. The blank questionnaire that is attached at the appendices.

2.4 Data collection procedure

Prior to collecting data, the researcher received a letter of approval from Mount Kenya University's School of Health Sciences. This was presented to the Mayor of Rwamagana District. In the research process, the researcher first of all briefed the participants on the reason why he is conducting this study. After being briefed by the researcher, there was a direct contact between the participants and the researcher to enable them to express their opinions. To allow the researcher to obtain verbal answers, interactions were also conducted orally with the respondents. This allowed the information derived from the questionnaires to be completed if necessary. Therefore, the researcher met the respondents at their respective households and give them questionnaires. The questionnaire was translated in Kinyarwanda and distributed to the respondents and was answered in the presence of the researcher for eventual support. In case of difficulties in understanding the questions, the researcher stepped in for a clear explanation. In order to ensure the quality of the data collection and the completeness of the

questionnaire, the proper design of the data collection tools and verification of the data was carried out.

The data collection was carried out for the women attending antenatal care services in the day hours. The women were given numbers and they were selected basing on the acceptance of participating in the study and the systematic random sampling relying on the provided numbers. The researcher collected the answered questionnaires immediately and go to another respondent. The questions concerned the following items:

Concerning independent variables, there are two sections of questions: Socio demographic factors: Age, marital status, number of visits in ANC, parity, religion. Socio economic factors: Occupation, education level, economic status, environmental conditions. Concerning dependent variables, the respondents were asked a set of questions to assess their knowledge of obstetric danger signs. They were given different signs and be asked to say whether they are danger signs or normal signs.

2.5 Data analysis procedure

As input, primary data were collected from the respondents in sampled women attending ANC services in Rwamagana District. Data were organized in a more meaningful and interpretive way to attain the study objectives. After the collection from the field, data were entered into a computer using SPSS version 22 to allow easy interpretation and analysis. As output, data coding was processed to categorize the level of knowledge on obstetric danger signs. The high level of knowledge score was 75% and above while the low level was below 75%. Thus, descriptive statistics including percentages or frequencies was computed and the results were further presented in tables and figures. In addition, the treatment of information related to the relationship between variables was done based on the result provided by SPSS through the measure of the relationship between independent and dependent variables. On this issue, logistic regression analysis was used. A descriptive statistic including bivariate and multivariate analyses were carried out to assess the significant factor vis-à-vis knowledge on obstetric danger signs. The significance level was set at P-value equal to 0.05 and certainty level of 95%.Data were presented in a summary according to the study variables where frequency tables, percentages, means were used. A pie chart and histogram was also used to summarize the data.

2.6 Ethical consideration

Prior to conducting this study, ethical clearance was obtained from Mount Kenya University. Permission from Rwamagana District was obtained prior to the beginning of data collection. Participation in this study was voluntary. The information sheet and consent form was translated into Kinyarwanda. A signed consent form from the participant was kept. Participants who refused to consent were excluded. The data were kept confidential and there is no risks intended to happen during the implementation of this study.

RESULTS

Table 4.3. Knowledge on obstetric danger signsamong pregnant women attending antenatal care in selected health centers of Rwamagana District, 2024, 2024 (n=424)

Variables	Frequency	Percentage
Bleeding in the first trimester of pregnancy		
Danger sign	322	75.9
Normal sign	102	24.1
Bleeding in the second or third trimester of pregnancy		
Danger sign	309	72.9
Normal sign	115	27.1
Contractions		
Danger sign	266	62.7
Normal sign	158	37.3
Sudden weight gain		
Danger sign	304	71.7
Normal sign	120	28.3
A flow of liquid		
Danger sign	309	72.9
Normal sign	115	27.1
The baby is no longer moving		
Danger sign	347	81.8
Normal sign	77	18.2
Fever		
Danger sign	308	72.6
Normal sign	116	27.4
A shock		
Danger sign	267	63.0
Normal sign	157	37.0
Nausea and vomiting		
Danger sign	115	27.1
Normal sign	309	72.9
Discomfort		
Danger sign	119	28.2
Normal sign	305	71.8
Itching		
Danger sign	127	30.0
Normal sign	297	70.0
Toothache		
Danger sign	140	33.0
Normal sign	284	67.0
Back pain		
Danger sign	97	22.9
Normal sign	327	77.1
Heavy legs		
Danger sign	102	24.1
Normal sign	322	75.9

Variables	Frequency	Percentage
Frequent urination		
Danger sign	61	14.4
Normal sign	363	85.6
Cramps		
Danger sign	100	23.6
Normal sign	324	76.4
Excessive salivation		
Danger sign	112	26.4
Normal sign	312	73.6

Source: Primary data, 2024

The findings of this study as depicted by Table 4.3 showed that 75.9% of the respondents said that bleeding in the first trimester of pregnancy constitutes a danger sign; 72.9% of the respondents said that bleeding in the second or third trimester of pregnancy constitutes a danger sign; 62.7% of the respondents said that contractions during pregnancy constitutes a danger sign; 71.7% of the respondents said that sudden weight gain during pregnancy constitutes a danger sign; 72.9% of the respondents said that a flow of liquid during pregnancy constitutes a danger sign; 81.8% of the respondents said that if the baby is no longer moving, it is a danger sign; 72.6% of the respondents said that fever during pregnancy constitutes a danger sign; 63% of the respondents said that a shock during pregnancy constitutes a danger sign; 72.9% of the respondents said that nausea and vomiting during pregnancy do not constitute a danger sign; 71.8% of the respondents said that discomfort during pregnancy does not constitute a danger sign; 70% of the respondents said that itching during pregnancy does not constitute a danger sign; 67% of the respondents said that toothache during pregnancy does not constitute a danger sign; 77.1% of the respondents said back pain during pregnancy does not constitute a danger sign; 75.9% of the respondents said that heavy legs during pregnancy does not constitute a danger sign; 85.6% of the respondents said that frequent urination during pregnancy does not constitute a danger sign; 76.4% of the respondents said that cramps during pregnancy do not constitute a danger sign and 73.6% of the respondents said that excessive salivation during pregnancy does not constitute a danger sign.

In sum, the level of knowledge was ranked to the high level of knowledge and low level of knowledge on obstetric danger signs as explained in WHO's guidelines on managing complication of pregnancy & childbirth (WHO, 2021). According to those guidelines, the cutoff score on the knowledge on danger signs is 75%. Therefore, the respondents with scores below 75% were considered as having low level of knowledge while those with 75% and more were considered as having high level of knowledge.

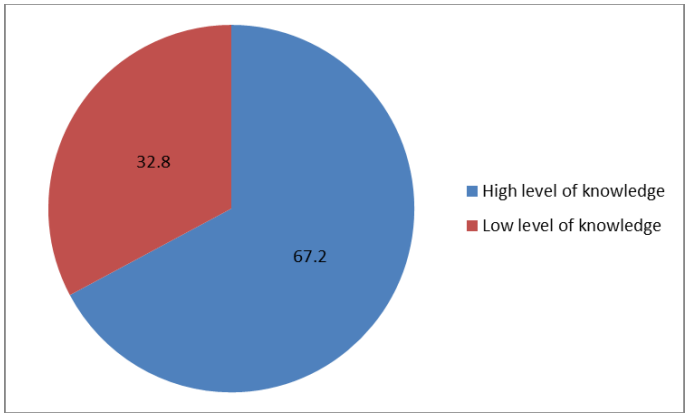

Figure 4.1 Proportion of low and high level of knowledge of obstetric danger signs among pregnant women attending antenatal care in selected health centers of Rwamagana District, 2024 (n-424)

The findings showed that the respondents with low level of knowledge were 32.8% while the respondents with high level of knowledge were 67.2% as depicted in Figure 4.1.

Table 4.4 Bivariate analysis of socio demographic factors associated to the knowledge of obstetric danger signs among pregnant women attending antenatal care in selected health centers of Rwamagana District, 2024 (n=424)

Particulars	Level of knowledge on obstetric danger signs		Chi-square	P-value
	High n (%)	Low n (%)		
Age			25.533	**0.001**
15-24	78(52.3)	71(47.7)		
25-34	122(71.8)	48(28.2)		
35 and more	85(81)	20(19)		
Marital status			31.656	**0.001**
Single	48(48)	52(52)		
Married/Cohabiting	206(76.9)	62(21.3)		
Wodower / Divorced / Separated	31(55.4)	25(44.6)		
Number of ANC visits			39.600	**0.001**
Less than 4 visits	73(48)	79(52)		
4 visits and above	212(77.9)	60(22.1)		
Parity			16.424	**0.001**
Primiparous	99(56.2)	77(43.8)		
Multiparous	186(75)	62(25)		
Religion			1.891	0.388
Christian	210(68.9)	95(31.1)		
Muslim	24(58.5)	17(41.5)		
Others	51(65.4)	27(34.6)		

Source: Primary data, 2024

The findings of this study showed that the relationship of four factors (age, marital status, number of ANC visits and parity) towards the high level of knowledge on obstetric danger signs, were statistically significant with $p<0.05$. The participants being aged 35 years old and above presented a positive relationship with the high level of knowledge on obstetric danger signs with 81%, $X^2=25.533$, $p<0.001$. The participants being married or cohabiting presented a positive relationship with the high level of knowledge on obstetric danger signs with 76.9%, $X^2=31.656$, $p<0.001$. The participants having done 4 ANC visits and above presented a positive relationship with the high level of knowledge on obstetric danger signs with 77.9%, $X^2=39.600$, $p<0.001$ and the participants being multiparous presented a positive relationship with the high level of knowledge on obstetric danger signs with 75%, $X^2=16.424$, $p<0.001$. Only religion presented no relationship with the high level of knowledge on obstetric danger signs.

Table 4.5 Bivariate analysis of socio economic factors associated to the knowledge of obstetric danger signs among pregnant women attending antenatal care in selected health centers of Rwamagana District, 2024 (n=424)

Particulars	Level of knowledge on obstetric danger signs		Chi-square	P-value
	High n(%)	Low n(%)		
Occupation			0.387	0.534
I have an employment	171(68.4)	79(31.6)		
I have no employment	114(65.5)	60(34.5)		
Education level			30.068	**0.001**
Uneducated	96(61.9)	59(38.1)		
Primary	131(62.4)	79(37.6)		
Secondary and university	58(98.3)	1(1.7)		
Ubudehe category			29.994	**0.001**
Category 1&2	115(49.8)	116(50.2)		
Category 3&4	170(88.1)	23(11.9)		
Area of residence			28.296	**0.001**
Rural	166(58.7)	117(41.3)		
Urban	119(84.4)	22(15.6)		

Source: Primary data, 2024

The findings of this study showed that the relationship of three factors (education level, ubudehe category and area of residence) towards the high level of knowledge on obstetric danger signs, were statistically significant with $p<0.05$. The participants having studied at secondary or tertiary education presented a positive relationship with the high level of knowledge on obstetric danger signs with 98.3%, $X^2=30.068$, $p<0.001$. The participants being recorded in ubudehe category 3&4 presented a positive relationship with the high level of knowledge on obstetric danger signs with 88.1%, $X^2=29.994$, $p<0.001$. The participants being residents of urban area presented a positive relationship with the high level of knowledge on obstetric danger signs with 84.4%, $X^2=28.296$, $p<0.001$. Only occupation presented no relationship with the high level of knowledge on obstetric danger signs.

Table 4.6 Multivariate analysis offactors associated to the knowledge of obstetric danger signs among pregnant women attending antenatal care in selected health centers of Rwamagana District, 2024 (n=424)

Particulars	AOR	95% C.I		P-value
		Lower	Upper	
Age				
15-24	Ref.			
25-34	1.672	.926	3.018	0.088
35 and more	3.869	2.158	6.935	**0.001**
Marital status				
Single	Ref.			
Married/Cohabiting	2.373	0.205	3.679	**0.002**
Wodower/Divorced/Separated	1.343	0.696	2.591	0.378
Number of ANC visits				
Less than 4 visits	Ref.			
4 visits and above	3.824	2.492	5.868	**0.001**

Particulars	AOR	95% C.I		P-value
		Lower	Upper	
Parity				
Primiparous	Ref.			
Multiparous	2.333	1.543	3.530	**0.001**
Education level				
Uneducated	Ref.			
Primary	3.646	2.809	8.234	**0.001**
Secondary and university	4.977	4.751	9.521	**0.001**
Ubudehe category				
Category 1&2	Ref.			
Category 3&4	3.456	2.495	8.367	**0.001**
Area of residence				
Rural	Ref.			
Urban	3.812	2.283	6.366	**0.001**

Source: Primary data, 2024

The findings of this study as shown in Table 4.6, demonstrated that being aged 35 years old and above was three times more likely to be associated with the high level of knowledge on obstetric danger signs with AOR 3.869 95% CI (2.158-6.935), p<0.010. Married/cohabiting participants were twice more likely to be associated with the high level of knowledge on obstetric danger signs with AOR 2.373 95% CI (0.205-3.679), p<0.002.Also, having done 4 ANC visits and above was three times more likely to be associated with the high level of knowledge on obstetric danger signs with AOR 3.824 95% CI (2.492-5.868), p<0.001. Multiparous participants were twice more likely to be associated with the high level of knowledge on obstetric danger signs with AOR 2.333 95% CI (1.543-3.530), p<0.001.Also, having studied at secondary and university was three times more likely to be associated with the high level of knowledge on obstetric danger signs with AOR 3.646 95% CI (2.809-8.234), p<0.001.In addition, being recorded in ubudehe category 3&4 was three times more likely to be associated with the high level of knowledge on obstetric danger signs with AOR 3.456 95% CI (2.495-8.367), p<0.001. And participants residing in urban area were three times more likely to be associated with the high level of knowledge on obstetric danger signs with AOR 3.812 95% CI (2.283-6.366), p<0.001.

DISCUSSION

This study findings on the knowledge of obstetric danger signs among pregnant women attending antenatal care in selected health centers of Rwamagana District (Table 4.3 & Figure 4.1) showed that the respondents with low level of knowledge were 32.8% while the respondents with high level of knowledge were 67.2%.These results were reported to be higher than the results obtained by Maseresha et al. (2016). In their study conducted in Ethiopia, the authors noted certain shortcomings observed at the level of health services; among other things: the lack of information, talks and debates in health facilities and in the communities, meant that some women were unaware of the danger signs during pregnancy. For example, 45% of women are unaware that it is necessarily recommended to consult if you have bleeding during the first trimester of pregnancy. With regard to contractions, more than half of the women surveyed did not understand the danger presented by the frequency of contractions during the third trimester of pregnancy. With regard to sudden weight gain, certain shortcomings have been noted since 33% of the women surveyed do not know that this constitutes a sign of danger and that the woman must immediately consult a doctor. This difference might be due to the difference in ANC campaigns conducted in Rwanda and Ethiopia. The health system in Rwanda put efforts on the role of community health workers to be close to pregnant women and this could explain the high level of knowledge on obstetric danger signs observed in the present study compared to the one found in other countries.

Other studies consulted on this issue showed lower level of knowledge among pregnant women compared to the present one. For example, in a retrospective descriptive study carried out by Pembe et al. (2016) on rural Tanzanian women's awareness of danger signs of obstetric complications in 2019, among 400 women who gave birth reveals that in 21% of cases, the risks related to pregnancy were not reported to these women during their antenatal care. Thus, 26% of the women surveyed revealed that they were not informed of the danger that the decrease or absence of fetal heartbeats can portend.

Concerning the factors associated to the knowledge of obstetric danger signs among pregnant women attending antenatal care in selected health centers of Rwamagana District, the findings of this study as shown in Table 4.6 demonstrated that having studied at secondary and university was three times more likely to be associated with the high level of knowledge on obstetric danger signs with AOR 3.646 95% CI (2.809-8.234), p<0.001. These findings are almost the same as those found by Okereke et al. (2013) in a study conducted in Nigeria on implications for maternal mortality reduction. According to these authors, the level of knowledge of danger signs during pregnancy depends on the level of education (70% for uneducated women, 84% for those who are literate, 100% for women with secondary education or more), decision-making power (91% of households are headed by men and hold the decision-making power), 10% of women declared having decided in the last resort for certain relative decisions to their health during pregnancy.

In terms of place of residence, the present study found that participants residing in urban area were three times more likely to be associated with the high level of knowledge on obstetric

danger signs with AOR 3.812 95% CI (2.283-6.366), p<0.001. These findings are similar to the ones found by Okereke et al. (2013). According to these authors, attendance at maternal and child health centers and therefore the level of knowledge about obstetric danger signs varies greatly between rural (70%) and urban areas (97%) (Okereke et al., 2013). For Anya et al. (2018), the lack of information was one of the causes of ignorance of the risk factors during pregnancy and the warning signs with which it is imperative to consult the doctor. Compared to the late consultation despite the presence of an alarming sign, respondents blamed the lack of financial means (44%), long distances (37%) and negligence (20%).

In sum, this study has both strengths and limitations. The adopted research design involved the use of a self-oriented questionnaire. Some of the respondents may have felt shy to express themselves freely in front of other people; the researcher tried to ensure each respondent participated besides her difficulties to express herself. The researcher anticipated some challenges related to accessing accurate information from respondents some of the information (example: Why they do not attend ANC service) are deemed to be confidential to respondents. However, the strength of this study is that the researcher collaborated with various stakeholders in maternal health in Rwamagana District. That is why important information related to the knowledge of obstetric danger signs among pregnant women attending antenatal care in selected health centers of Rwamagana District have been collected and the factors associated to that knowledge have been identified.

CONCLUSION

The research question 1 was answered as it was found that about three quarters of the respondents have a high level of knowledge on obstetric danger signs. The research question 2 also was answered as it was found that age, marital status, number of ANC visits, parity, education level, ubudehe category and area of residence are associated to the high level of knowledge on obstetric danger signs while religion and occupation presented no relationship with the high level of knowledge on obstetric danger signs.

RECOMMENDATIONS

As recommendation, the government should increase the sensitization on the importance of respecting the 4 ANC visits recommended by the WHO as it was found that having done 4 ANC visits and above was three times more likely to be associated with the high level of knowledge on obstetric danger signs. It should also put efforts on younger women as it was found that their level of knowledge is lower than the population in general.

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