

ASSESSMENT OF KNOWLEDGE, ATTITUDE AND HEALTH-SEEKING BEHAVIOR OF OBSTETRIC DANGER SIGNS DURING PREGNANCY AMONG PREGNANT MOTHERS ATTENDING ANTENATAL CARE IN FAMILY GUIDANCE ASSOCIATION CLINIC, HAWASSA, ETHIOPIA

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Abstract: - Introduction: *The identification of Obstetric danger signs and its relation with complication during pregnancy would enable the mother, their care provider to seek health care timely, attending the necessary steps to have a safe birth and post-partum. Insufficient knowledge regarding this problem among mothers, families, and birth attendants in developing world is the major attributing predictor for maternal deaths.*

Objectives: *To assess knowledge, attitude, health-seeking behavior and associated factor of danger signs during pregnancy among pregnant mothers attending Antenatal care in Family Guidance Association Clinic, 2016, Hawassa, Ethiopia.*

Methods: *Institution based cross-sectional study design was conducted from May 05/ 2016 to August 01/2016 G.C. A total of 251 pregnant mothers were included in the study using a single population proportion formula. A systematic random sampling method was used to select study participants from pregnant mothers attending Antenatal care. Data was collected by using structured interviewer administered questionnaire. Data was entered into EPI info version 3.5.1 and exported to SPSS version 21 statistical software package for cleaning, coding and analysis. Descriptive statistics was done to assess basic characteristics. Factors that show association in Bivariable analysis was entered into Multivariable logistic regression model. The strength of statistical association was measured by AOR, 95% confidence intervals, and P-value <0.05 will be considered as significant.*

Result: *A total of 251 pregnant women were included in the study with a response rate of 100%. The study revealed that 60.6% of participants had heard about obstetric danger signs. The percentage of women who have positive attitude toward seeking medical care and privation obstetric danger sign during pregnancy was 86.9% and 84.5% of the study participants had practice seek medical care when they faced problem.*

Conclusion: *The knowledge, Attitude and practice of Obstetric danger signs were affected by educational status, occupation, and Null parity. Efforts need focus on availing antenatal care services with appropriate information on danger signs of pregnancy to increase the knowledge of pregnant women about danger signs during pregnancy.*

Keywords: *Danger signs, Pregnancy, Obstetric care, knowledgeable*

Introduction:

The maternal mortality was inappropriately high and a behavior of delay in health seeking was one of the basic predictor facilitating maternal mortality, it was associated with knowledge deficit regarding the problem(1).

In developing countries, at 2015, the average maternal mortality rate was 216 per 100,000 live births, as compared with developed countries that it was 12 per 100,000. This high number reflects inequality in access to health services (2).

In a study conducted in Saudi Arabia at 2015, recommended that raising awareness about the factors associated with obstetric danger signs and husbands should include with their wives in receiving counseling about obstetric danger signs reduces maternal mortality.(3)

The leading cause of maternal mortality in Ethiopia are, hemorrhage, Hypertensive disorders of pregnancy, abortion and sepsis which can be reduced through early recognition and through provision of skilled care at institutional. The Ethiopian government plans to reduce MMR to 199 per 100,000 live births by 2020(4).

The identification of Obstetric danger signs and its relation with complication during pregnancy would enable the mother, their care provider to seek health care timely, attending the necessary steps to have a safe birth and post-partum(5).

Danger signs of pregnancies are an alarming signs that women face during pregnancy starting from the time of conception, at labour and post-partal period. Early determination of this alarming signs for the mothers and health professional to rule out health danger complications and to start early treatment(6). About seventy two Percent of maternal death are attributed to direct causes of maternal mortality. Among those causes Hemorrhage, Hypertension, Sepsis, Abortion, Embolism accounts 27%, 14%, 11%, 8% and 3% respectively.(7)

Women individually, their partners and the communities need to be educated on obstetric danger signs so that they can seek appropriate care from skilled providers in time. Knowledge deficit about the importance of symptoms of this complication is one of the reasons that contribute for failure of women to recognize and appreciate and also to seek essential emergency care. Accordingly, assessment of women's knowledge of obstetric danger signs and associated factors contributes to

increase their knowledge.

There was no study was conducted in the study area to assess the knowledge among the pregnant mothers in the town which is important to assess the knowledge of on danger signs of pregnancy.

The objective of this study was to assess the knowledge, attitude and health seeking behavior of obstetric danger sign and associated factors among ANC attendant pregnant women. This study therefore aims to address this gap by through assessing their current level of knowledge of danger signs, Attitude and their health seeking behavior and identify factors associated with it. Also it is expected that the results of the study has provide valuable information for design of possible programs and interventions to improve maternal and neonatal health.

Methods:

Study Design

Institution based cross sectional study design was carried out from May 05/ 2016 to August 01/2016 G.C in Family Guidance Association clinic, Hawassa which is located as 270 km at south from Addis Ababa which is located in the southern part of Ethiopia.

Source population

All pregnant women who were attending antenatal care (ANC) services in family guidance association clinic, Hawassa.

Study population

All selected pregnant women who have Antenatal care follow up in family guidance association clinic in Hawassa.

Inclusion and Exclusion Criteria

Those pregnant mothers who have Antenatal care follow up in Family Guidance Association clinic are considered in Inclusion Criteria and Pregnant mothers who are unable to hear and speak were excluded from the study.

Sampling Method and Sample Size Determination

The sample size was determined by using single population proportion formula:
$$n = \frac{(Z\alpha/2)^2 P(1-P)}{d^2}$$

The following assumption were considered:

Prevalence of knowledge of danger sign during pregnancy done in Arbaminch = 24.1 %, 95% confidence level and 5% degree of precision, margin of error (0.05) and 10% Non-response rate was added . The final sample size was 251. Then, systematic population proportion sampling technique was used to select study participants.

Data Collection Instrument and Procedure

Data was collected using structured questionnaire. The questionnaire contains socio demographic Characteristics, Previous obstetric characteristics, Level of Knowledge on obstetric danger signs and Current ANC follow up characteristics, Attitude and Health seeking behavior on obstetric danger signs. The data collection tool was first be prepared in English then translated to local language (Amharic). Pretest was conducted in 5% of the participants in Wendogenet Health center and modification has been considered. The data was collected by face to face interview by diploma holder midwives who are not working in the assigned area after they were given a one day training on the tools and necessary cares needed. The clients were interviewed in the waiting area prior to take ANC care in appropriate and private room.

Data processing and analysis

Data was entered into Epi infoversion 3.5.1 and exported to SPSS version 21 for cleaning, coding and analysis. Basic descriptive analyses was done for socio demographic variables and other independent factors. Crude odd ratios and AOR was computed to assess the degree of association

between the variables. Both Bivariable and Multivariable logistic regression model was fitted to assess the association between outcome and explanatory variables. Those independent variables that are significant in bivariable logistic regression which have p-value less than 0.25 were entered in to the multivariable logistic regressions model. Backward stepwise regression was used for choosing determinant variables. Extent of strength was presented using odds ratios and its 95% confidence intervals. P-value ≤ 0.05 was used as a cutoff point to determine statistical significance in multiple logistic regressions the final model. Hosmer and Lemeshow as well as omnibus test were used to test the model fitness. Multicollinearity were checked using standard error. Finally, the result was presented using texts, tables, charts and graphs.

Results:

Socio-demographic characteristics of study subjects

A total of 251 women were participated in the study and which yields the response rate of 100%. Among the study participants 32.3% participants were in the age Group of 20-22 and 2% are 38-40 age group with the mean age of the respondents 25 Years. Regarding their religion 44.6% of the study participants were protestant and the least 6% were catholic Besides their educational status 29.5% had completed secondary school and 3.6% are uneducated.

Table 1: Socio-demographic and economic characteristics in Family guidance Association clinic, Hawassa, Ethiopia August,2016,(n=251)

Variables	Categories	Frequency	Percent
Religion	Orthodox	78	31.07
	Muslim	46	18.32
	Protestant	112	44.62
	Catholic	15	5.99
Marital Status	Married	246	98.00
	Widowed	4	1.6
	Divorce	1	0.4
Educational Status	Cannot read and write	9	3.6

	Read and write but no formal education	18	7.17
	Primary Education	71	28.28
	Secondary Education	74	29.5
	Diloma Holders	46	18.31
	Degree and above	33	13.14
Occupational status	Student	16	6.4
	House wife	111	44.2
	Civil servant	59	23.5
	Merchant	44	17.5
	NGO/Private workers	21	8.4
Family income per month	<500 ETB	22	8.8
	501-1000 ETB	28	11.2
	1001-1500 ETB	45	17.9
	1501-2000 ETB	61	24.3%
	≥2001 ETB	95	37.8

Obstetric characteristics of the respondents

51.4% of the respondents had history of 2-4 pregnancies and 2.8% mothers were pregnant for more than five times. Regarding first pregnancy age 88.4% mothers got their first pregnancy at 19-29 years. As indicated in table 2, 24.3%

Respondents had 2 and above live children and 29.1% who have 1 live child. Majority 98.8% of the respondents had no history of still birth but only 1.2% respondent had history of one still births. 51.4% had 1-4 numbers of children and only 2.8% mothers had 5 and more children.

Table 2: Obstetric history of pregnant mothers attending ANC in Family guidance association clinic, Hawassa, Ethiopia, August 2016, (n=251)

Variables	Categories	Frequency	Percent
Age at first pregnancy	<18 years	26	10.4
	19-29 years	222	88.4
	30 and above	3	1.2
Total number of pregnancy	One	115	45.8
	2-4	129	51.4
	5 and above	7	2.8
Number of alive births	None	115	46.6
	One	74	29.1
	2 and above	62	24.3
Number of dead birth	None	248	98.8
	One	3	1.2

Total Number of Births	No Birth	115	45.8
	One to four birth	129	51.4
	Five and above	7	2.8

Information source regarding Danger sign of pregnancy

60.6% of participants had heard about danger signs of pregnancy and the respondents answered the signs that indicate the pregnant and the pregnancy

has illness.

Knowledge on danger signs during pregnancy

15.9% of the respondents know about severe vaginal bleeding and 3.6% about unusual abdominal pain as danger signs

Table 3: knowledge of danger signs during pregnancy among pregnant Mothers in Family guidance Association clinic, Hawassa, Ethiopia, August 2016(n=251)

Variables	Categories	Frequency	Percent
Sever vaginal bleeding	Yes	139	55.37
	No	112	44.63
Leaking of fluid from birth canal	Yes	19	7.6
	No	232	92.4
High grade fever	Yes	28	11.1
	No	223	88.9
Absent or Decreased fetal movement	Yes	20	8.0
	No	231	92.0
Foul smelling vaginal bleeding	Yes	11	4.4
	No	240	95.6
Exhaustive tiredness	yes	18	7.2
	No	233	92.8
Unusual abdominal pain	Yes	9	3.6
	No	242	96.4
Persistent back pain	Yes	14	5.6
	No	237	94.4
Persistent Vomiting from 4 th month onwards	Yes	60	23.9
	No	191	76.1
Severe headache or blurred vision	Yes	45	17.9
	No	206	82.1
Body swelling	yes		
	Yes	48	19.1

	No	203	80.9
Persistent painful urination	Yes	9	3.6
	No	242	96.4

Attitude towards obstetric danger signs

52.2% of the study respondents were agreed with importance of knowing obstetric danger signs and 62.5% the study participants agreed that knowing obstetric danger signs is important because women will seek medical care on time. Regarding the prevention of obstetric danger signs 63.3% of the

respondents were agreed. Most 64.9% disagree on the idea that mothers who develop obstetric danger signs should seek help from traditional birth attendants. Majority 9.2% of the study participants agreed on the idea that mothers who develop obstetric danger signs should seek help from other older women.

Table 4: Attitude of obstetric danger sign during pregnancy among pregnant mothers in Family guidance Association clinic, Hawassa, Ethiopia. 2016(n=251)

Variables	Categories	Frequen cy	Perce nt
It is important for women to know obstetric danger signs during pregnancy	Strongly agree	118	47.0
	Agree	131	52.2
	Neutral	1	0.4
	Disagree	1	0.4
	Strongly disagree	0	0
Knowing obstetric danger sign is important because women will seek medical care on time	Strongly agree	91	36.3
	Agree	157	62.5
	Neutral	2	0.8
	Disagree	1	0.4
	Strongly disagree	0	0
Knowing obstetric danger sign is important because the danger signs will not go away by their own	Strongly agree	81	32.3
	Agree	165	65.7
	Neutral	2	0.8
	Disagree	3	1.2

	Strongly disagree	0	0
A women can prevent danger sign during pregnancy	Strongly agree	63	25.1
	Agree	159	63.3
	Neutral	0	0
	Disagree	2	0.8
	Strongly Disagree	27	10.8
Mothers who develop obstetric danger signs should seek medical advice	Strongly agree	69	27.5
	Agree	174	69.3
	Neutral	3	1.2
	Disagree	3	1.2
Mothers who develop obstetric danger signs should seek help from older women	Strongly agree	3	1.2
	Agree	23	9.2
	Neutral	2	0.8
	Disagree	155	61.8
	Strongly disagree	68	27
Mothers who develop obstetric danger signs should seek help from untrained traditional birth attendants	Strongly agree	6	2.4
	Agree	15	6.0
	Neutral	4	1.6
	Disagree	163	64.9
	Strongly disagree	63	25.1

Health –seek behavior on danger signs during pregnancy

84.5% of the study participants had practice

Seek medical care when they faced problem. As indicated in table below, 11.2% of the study participants have claimed as they did not experience any obstetric danger signs during pregnant.

Table 5: Health-*seek behavior on danger signs during pregnancy in Family guidance Association clinic, Hawassa, Ethiopia, August, 2016,(n=251)*

Variables	Categories	Frequen cy	Perce nt
Health seeking behavior when you experienced obstetric danger sign during pregnancy	Sought medical care	212	8.5
	Care from untrained traditional birth attendants	3	1.2
	Stayed home	3	1.2
	Sought care from an older woman	5	2.0
	No experienced	28	11.2

Factors associated with knowledge about obstetric danger signs

Table 6: Association of attitude of Obstetric danger signs during pregnancy with selected background characteristics among pregnant mothers in Family guidance association clinic, Hawassa, August, 2016 (n=251)

Variable		Knowledge of obstetric danger signs				Odd Ratio(95% CI)		PV
		Good Knowledge		Poor knowledge		COR	AOR	
		N	%	N	%			
Educational status	Not read and write	3	33.3	6	67	1	1	
	Only read and write	5	27.8	13	72	0.531(0.13-2.491)	1.882(0.40-8.82)	0.422
	Primary education	30	42	41	56	0.409(0.11-1.408)	2.447(0.71-8.431)	0.156
	Secondary education	27	36.5	47	63	0.77(0.339-1.782)	1.286(0.56-2.948)	0.244
	Diploma	25	54.3	21	46	0.610(0.26-1.401)	1.638(0.714-3.76)	0.244
	Degree and above	16	48.5	17	51	1.265(0.51-3.098)	1.791(.23-1.937)	0.02**
Occ	House wife	40	36.0	71	64	1	1	
	Merchant	34	57.6	25	43	0.519(0.18-	1.93(0.671-	0.22

						1.149)	5.522)	3
	Civil servant	5	31.2	11	69.	1.49(0.45-	1.81(0.298-	0.04
					0	3.361)	2.199)	**
	Student	16	36.4	28	64	0.413(0.10-	2.42(0.621-	0.20
						1.61)	9.433)	3
	NGO/Private	11	52.4	10	48	0.52(0.20-	1.95(0.763-	0.16
						1.311)	4.998)	3

Discussion and Conclusion

The level of knowledge on obstetric danger sign was 60.1% which is less than the study conducted in Mekelle(79.6%) (9) and greater than Boricha district, Mizan Aman , Debayinglan which was (57%), 47% and 56.8% Respectively (8,10,11). Socio-economic, geographical location, study time variation and the implementation of relevant health intervention programs, health service coverage may be the factors that cause the difference.

Based on this study the common stated obstetric danger sign was vaginal bleeding which accounts 55.3% which is higher than Arbaminch (35.1%)(12) and rural Tanzania(9.6%)(13) and Tsegedie Destrict, Ethiopia(49.1%)(14) which might be due to low level of maternal health service utilization, difference in socio-cultural characteristics and health service coverage.

This study stated that 42.2% of the study participants have good knowledge which is lower than in Debarke(47%)(15) and greater than Aal-nawariah primary health care center (21%)(1) this difference might be due to different service delivery, different access to the health institution, variation in access to the social media(Internet), variation in socio cultural difference, and accessibility of books.

90.8% of the participants disagree on the idea that mothers who develop obstetric danger signs should seek help from untrained traditional birth attendants. This finding is higher than reports from reports from in Debre Birhan city administration, which revealed 89.2%, agreed that knowing obstetric danger signs is important because women will seek medical care on time. Regarding the prevention of obstetric danger signs 57% of the respondents were agreed. Most 71.2% disagree on the idea that mothers who develop obstetric danger signs should seek help from traditional birth attendants. This difference might be due to low level of maternal health services

utilization. This study indicates that, 86.8% of the respondents have Positive attitude and remaining 13.1% have negative attitude. This finding is higher than reports from in Debre Birhan city administration which was 47.3%(1 6) which might be due to socio-economic and socio-geographical location.

Majority of the participants (86.9%) had Good health seek behavior when they faced problem and 13.14% of the study subjects had Poor health –seek behavior. this is greater than the study conducted in Debre Birhan city administration which is 46.8% and a study conducted which is 36.6% might be due to the that socio-cultural difference, awareness variation regarding the danger signs and access to social media.

Generally the study concluded that mothers knowledge, Attitude and health Seek behavior on obstetric danger signs was affected by educational status, Occupational status and number of pregnancy and also it indicates that the level of knowledge of pregnant women on danger signs of pregnancy was not adequate above the half Of pregnant mother was poor knowledge about obstetric danger signs during Pregnancy. Efforts need focus on availing antenatal care services with appropriate Information on danger signs of pregnancy to increase the knowledge of pregnant Women about danger signs. Regarding the attitude majority of pregnant women’s Have Positive attitude toward seek medical care for obstetric danger sign and Prevention of obstetric danger signs during pregnancy.

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