International Journal of Scientific Reports
Yasin AM et al. Int J Sci Rep. 2024 May;10(5):156-164
http://www.sci-rep.com
pISSN 2454-2156 | eISSN 2454-2164
DOI: https://dx.doi.org/10.18203/issn.2454-2156.IntJSciRep20240979

Original Research Article

Predictors of husbands in supporting wives to use obstetrics care services by health professionals, Dire Dawa administration, Ethiopia: a community based cross sectional study

Aminu Mohammed Yasin[1]*, Mickiale Hailu Tekle[1], Daniel Tadesse Asegid[1], Asma Bireda Beshir[1], Tewodros Getnet Amera[2], Yibekal Manaye Tefera[2]

[1]Department of Midwifery, College of Medicine and Health Sciences, Dire Dawa University, Dire Dawa, Ethiopia
[2]Department of Public Health, College of Medicine and Health Sciences, Dire Dawa University, Dire Dawa, Ethiopia

Received: 12 December 2023
Revised: 21 January 2024
Accepted: 22 January 2024

***Correspondence:**
Aminu Mohammed Yasin,
E-mail: aminumhmd83@gmail.com

ABSTRACT

Background: Husbands' support in obstetric care services is a process of social and behavioral change that husbands must undergo to prevent obstetric complications. But so far, studies across Ethiopia have been inconsistent and lacking in the study area. Therefore, this study was aimed at assessing husbands' predictors, which could help in interventions.
Methods: A community-based cross-sectional study was conducted in the Dire Dawa administration, Ethiopia, from July 1-30, 2022. Participants were selected using a systematic sampling technique. Data were collected through interviews using a structured questionnaire, entered into EPI data (Version 3.1), and analyzed using SPSS (Version 22). A p=0.05 or less at multivariate with 95% confidence intervals was considered statistically significant.
Results: Of a total of 610, 51.8% of husbands support wives in using obstetrics care services. The predictors were urban residence (AOR=2.55, 95% CI: 1.75-3.73), education level of diploma and above (AOR=2.00, 95%CI: 1.10-3.74), perceived importance (AOR=1.98, 95% CI: 1.30-3.00), antenatal care visit accompanying experience (AOR=1.79, 95% CI: 1.04-3.07), and institutional delivery accompanying experience (AOR=6.20, 95% CI: 3.4-1.33).
Conclusions: One in two husbands supports wives to use obstetrics care services provided by health professionals. Findings are helpful in advancing knowledge of husbands' factors and highlight the need for health facilities and stakeholders to strengthen and create continuous community awareness.

Keywords: Obstetric care, Husbands' support, Health professionals

INTRODUCTION

Obstetric care service is defined as care during pregnancy or childbirth that takes place at a medical facility staffed by health professionals or a skilled birth attendant (SBA).[1] Use of such SBA is an essential component for achieving universal access to reproductive health-care services, which is a commitment made by the international conference on population and development (ICPD) in 1994 in Cairo, Egypt.[2] Studies also reveal that SBA is among the most important components of maternal health care in overcoming childbirth-related complications for the mother and newborns.[3,4] While husbands' support in obstetric care services is a process of social and behavioral change that husbands must undergo to prevent obstetric complications.[1,5,6]

Worldwide, much maternal and newborn mortality occurs due to obstetric complications, especially during childbirth.[2,6] This is high in Sub-Saharan Africa, including Ethiopia, and the majority of such deaths occur from preventable obstetric complications like hemorrhage, obstructed labor, and hypertension.[2,7] Such preventable obstetric complications are primarily managed by SBAs at health facilities.[2,7,8] However, lacking husbands' involvement in promoting SBA decreases maternal health care service utilization and increases childbirth-related complications, including death.[9,10]

The world health organization (WHO) has developed a strategy to achieve the 2030 agenda for sustainable development goals (SDGs), goal 3.[8]

This plan is to reduce the global maternal mortality ratio to less than 70 per 100,000 live births by two indicators, i.e., the 3.1.1 maternal mortality ratio and the 3.1.2 proportion of births attended by skilled health personnel.[1,2,7] Even though many attempts are made to reduce maternal and child morbidity and mortality by improving maternal health care service utilization, like skilled delivery, the problem is still challenging the globe.[2,7,8] Besides, different types of initiatives are running globally, like the sustainable development goals (SDGs), to reduce such complications, but the goals are not fully achieved globally, particularly in Asia and sub-Saharan Africa.[1,11]

Similarly, in Ethiopia, even if the federal ministry of health is implementing many improvement strategies, it still needs to improve to achieve the SDGs in terms of complications related to childbirth, including maternal and newborn deaths.[6] So far, maternal and neonatal mortality rates in Ethiopia have been reported to be 412 per 100,000 live births and 29 per 1,000 live births, respectively.[12] For this, some studies suggest major reasons, like husbands' being major decision-makers.[1,6] Others still state a lack of knowledge about complications during childbirth.[2,7] Additionally, Others still indicate a lack of general knowledge on maternal health care, like antenatal care (ANC) and SBA, and complications during childbirth.[5,13] Moreover, studies reveal other influences, like the perceived cost of reproductive health care services and the perceived importance of SBA.[5,13-17]

However, research findings across Ethiopia on husbands' involvement in promoting SBA and its predictors are highly variable and inconsistent, and studies are lacking in the study area. Accordingly, studying this topic helps to fill the gap and facilitate good interventions for SBA, thereby reducing maternal and child morbidity and mortality, particularly those related to childbirth. Therefore, the purpose of this study was to assess predictors of husbands' support for wives to use obstetrics care services by SBA in order to aid in intervention.

METHODS

Study setting and design

A community-based cross-sectional study was conducted in the Dire Dawa administration, Ethiopia, from July 1-30, 2022. Dire Dawa administration is located about 515 kilometers east of Addis Ababa, the capital city of Ethiopia, and 311 kilometers west of Djibouti port. The administration is bordered by the Shinile zone of the Somali National Regional State on the north, east, and west and the eastern Hararge zone of the Oromia National State on the northwest, south, south-east, and east. It has a total population of 521,000. The rural part of this region has a population of 188,000 spread over four rural kebeles (Biyo-awale, Wahil, Jeldessa, and Haselisso), and there are 38 sub-kebeles under these four kebeles (the smallest administrative unit). While the urban part (Dire Dawa City) has 9 kebeles, 6 hospitals (two public and four private), 17 health centers, and 34 health posts. Additionally, there are a total of 58 different-level clinics, 35 pharmacies, 35 drug shops, and 2 non-governmental clinics (Family Guidance and Mari Stops International Clinics), 38 health facilities (6 hospitals, 17 health centers, 10 higher clinics, and 5 special clinics) provide SBA services. In 2022, this administrative region reported having 13,386 institutional deliveries, many major obstetric complications like retained placentas related to home deliveries, antepartum hemorrhages, prolonged labor, fetal asphyxia related to meconium staining, among many others, and sixteen maternal deaths.[18]

Study subjects and exclusion criteria

Our source populations were all husbands in the Dire Dawa administration. Husbands who were legally adults (18 and older) and had at least one child in the previous year from selected kebeles during the actual data collection period were included in the study. However, husbands who were severely ill and unable to communicate were excluded.

Sample size and sampling procedure

The multi-stage sampling method was used to select study participants from urban and rural sites. Initially, three districts (Gende-kore, Sabiyan, and Lege-hare) were chosen (via lottery) from urban districts. From the three, three kebeles were selected (one from each): Gende-kore 06; Sabiyan 02; and Lege-hare 08—chosen randomly. Likewise, in the rural part, of the four Kebeles (Haselisso, Biyoawale, Jeldessa, and Wahil), three (Biyoawale, Jeldessa, and Wahil) were chosen (by the lottery method). Then, from the three, six sub-kebeles, two from each, from Biyo-awale (Awale and Beke-Halo), from Jeldessa (Mudi-Aneno and Lege-dini), and from Wahil (Agamsa and Halobusa), were chosen based on the recommendation of the local health office because these

are areas that have significant barriers to the utilization of maternal health care services.

After all, households that have husbands and a child less than 1 year of age were selected using information from urban and rural health extension workers (HEWs). Based on the information obtained from HEWs, the total number of husbands having a child less than one year of age was 1880 (790 in rural areas and 1090 in urban areas) and was used to determine the interval. As a result, the rural K-th interval is 790/2603, while the urban K-th interval is 1090/3573. Finally, sample size was proportionately allocated, and husbands having a child less than one year of age were interviewed every third interval by systematic random sampling technique using households as the sampling frame. For more than one eligible person in the same compound, a lottery method was used to choose one eligible person (Figure 1).

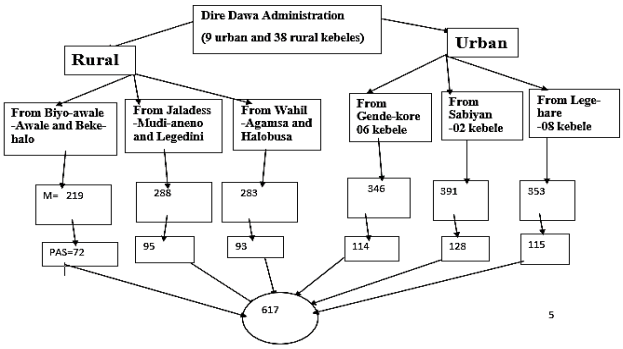

Figure 1: Diagram presentation of sample size allocation for the study in the Dire Dawa administration, Ethiopia, 2022.

Where, M=husbands having children less than 1 year of age, and PASS = proportionately allocated sample size.

The sample size was calculated using a single population proportion formula under the following assumptions: standard normal distribution (z=1.96), 95% level of significance, 5% margin of error (d), 41.9% prevalence after reviewing literature and 10% non-response rate, and the final sample size was 617.[19]

$$n= \frac{(Za/2)2xp(1-p)}{d2}$$

$$n= \frac{(1.96)2x0.419x0.581}{(0.05)2} =374,$$

Adding 10% non-response rate=37+374=411

Because multistage sampling was used to reduce random sampling errors, the design effect of 1.5 was taken into account: 411x1.5=617.

Data collection tools and procedures

The data was collected using a pre-tested and structured questionnaire that was adopted from related literature, and then variables were reviewed to suit the local context.[5,13,17] The questionnaire contains four main parts: socio-demographic characteristics; reproductive health care services; knowledge on maternal health care and obstetric dangers; and perceptions on the cost of obstetric care services and the importance of SBA.

Six health extension workers (HEWs) for data collection and three supervisors (MSc midwives) were recruited from the Dire Dawa administration based on their experience with data collection and their ability to speak the local languages (Affan Oromo, Somali, and Amharic).

Operational definitions

Husband: male who has a spouse, whether with formal marriage or informal union.[5,13,17]

Husbands' support: is the variable of interest, and it refers to husbands' support in the following obstetric care services:[5,13,17,20] 1. ANC accompanying spouse, 2. Birth and complication readiness plan (saving money for delivery intentions, arranging transportation for her delivery, purchasing necessary delivery items, planning for a place, and hiring a SBA for delivery), 3. Accompanying or encouraging institutional delivery by SBA, 4. Discussion with health professionals on the place of their wives' delivery, 5. Discussion with relatives or friends concerning the place of their wives' delivery and 6. Discussion with their wives concerning the place of their wives' delivery.

To measure husbands' support for wives to use obstetrics care services, six involvement-related questions were used, and one point was scored for each correct response. Then the total score was categorized based on the mean score as "good" (those who scored equal to or more than the mean score) and "poor" (those who scored less than the mean score).[13,16,17,21]

Husbands' knowledge: Husbands' knowledge of obstetric care services and obstetrics dangers include: About ANC, institutional delivery by SBA, danger signs during pregnancy for the fetus, danger signs during pregnancy for the mother, danger signs during childbirth for fetus, danger signs during childbirth for mother and complications related to home delivery.

To measure husbands' knowledge of obstetrics care services and obstetrics dangers, seven questions were used, and one point was scored for each correct response. The total score was then classified as having good knowledge (those who scored equal to or higher than the mean score) based on the mean score.[5,13,17,21]

Perception: The husbands' perceived insight about the cost of obstetric care services and the importance of supporting wives to use obstetrics care services for wives and newborns.[5,13,17,21] These were assessed on Likert

scale (strongly disagree, disagree, neutral, agree, and strongly agree). Then dichotomized (strongly disagree, disagree, and neutral to "expensive" and negative, and agree and strongly agree to "affordable" and "positive," respectively).

Data quality control

To check the clarity, skip pattern, and order of questions, the questionnaire was pretested in Harar (5% of the sample size) before the start of the actual data collection. After the pre-test, questions were revised and edited, and those found to be unclear were modified. The questionnaire was developed in English and translated into the local languages (Afan Oromo, Somali, and Amharic) and then back to English by experts to maintain its consistency. All data collectors and supervisors were selected based on their ability to speak local languages and their experience with data collection, and they were trained for one day. The principal investigators checked the completeness and consistency of the questionnaires filled out by the data collectors to ensure the quality of the data. Questionnaires are secured in a safe place for confidentiality and as a backup for later, in case a need to check is necessary. Data was entered into the EPI DATA software as part of data management. Double data entry was done by two data clerks, and the consistency of the entered data was cross-checked.

Data management and analysis

After data collection, the questionnaires were checked for completeness, and data entry was made using EPI DATA (Version 3.1) and then exported to SPSS (Version 22) computer software for analysis. A descriptive statistic for different variables was done by cross-tabulation. A binary logistics regression model using bivariable [crude odds ratio [COR]] and multivariable [adjusted odds ratio [AOR]] analysis with a 95% confidence interval and 5% significance level was used. Multi-collinearity was checked to see the linear correlation among the independent variables by using the variance inflation factor (>10) and goodness-of-fit test (>0.05). In the bivariable logistic analysis, variables that had a $p<0.20$ were retained for inclusion in the multivariable logistic analysis. In the final model, variables with a $p\leq0.05$ were considered statistically significant and independently associated with husbands' involvement in promoting wives' obstetrics care services by SBA.

RESULTS

Socio-demographic characteristics

The 610 husbands participated, yielding a response rate of 98.86%. Their ages ranged from 22 to 73 years (mean=43.6 years, SD=13.36 years). More than half (58.2% and 51.3%) were urban residents and merchants, respectively. Majority (73%) had >3 children (Table 1).

Table 1: Socio-demographics characteristics of study participants, Dire Dawa administration, Ethiopia, 2022, (n=610).

Variables	Category	N	Percentage (%)
Age (in years)	<30	205	33.6
	30-39	118	19.3
	40-49	186	30.5
	50 and above	101	16.6
Residence	Urban	355	58.2
	Rural	255	41.8
Level of education	Diploma and above	100	16.4
	Preparatory (11-12th grade)	122	20
	High school (9-10th grade)	118	19.3
	Primary (1-8th grade)	170	27.9
	Unable to read and write	100	16.4
Occupation	Merchant	313	51.3
	Farmer	166	27.2
	Employee (public + private)	101	16.6
	Currently no job	30	4.9
Monthly income level	>3500 ETB	183	30
	2000-3500 ETB	375	61.5
	<2000 ETB	52	8.5
Number of children	2-3	165	27
	>3	445	73
Time to reach the nearest health facility (on foot)	<30 minutes	107	17.5
	30 minutes-1 hours	327	53.6
	>1 hour	176	28.9

Obstetrics care service accompanying experiences in the past (before the last child)

Almost half (51.8%) of husbands had ANC and institutional delivery accompaniment experiences. The perceived cost of obstetric care services and importance of supporting wives to use obstetrics care services: 40% of husbands perceived the cost of obstetric care services as "affordable," and 51.8% had "positive" perception of supporting wives to use obstetrics care services (Table 2).

Husbands' knowledge of obstetrics care services and obstetric dangers

Out of 610, 42.5% and 23.7% of husbands had good knowledge on obstetrics care services (about ANC and institutional delivery by SBA), respectively, 27.2% and 34.1% had good knowledge of danger signs during pregnancy for fetus and mother, respectively (Figure 2).

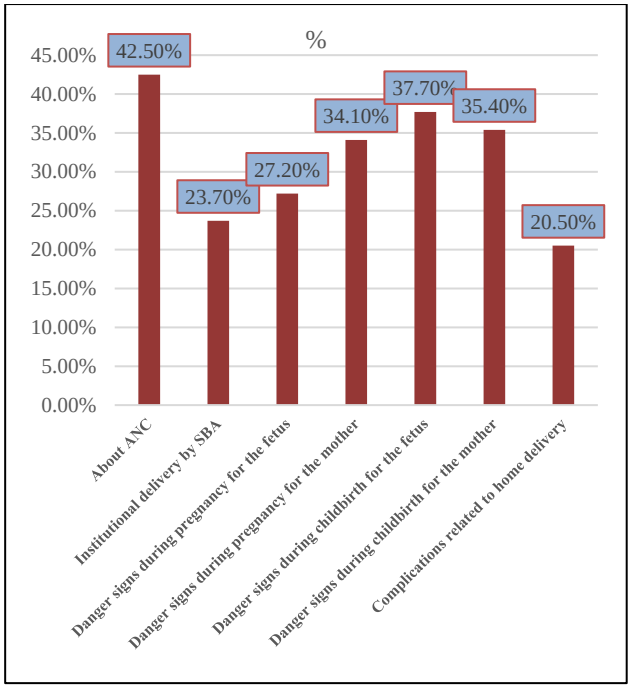

Figure 2: Husbands' knowledge assessment on obstetrics care services and obstetric dangers, Dire Dawa administration, Ethiopia, 2022, (n=610).

Husbands supporting wives to use obstetrics care services

51.8% (95% CI: 47.5%-55.4%). Out of total, 53.8% supported a birth preparation plan (saving money and arranging transportation), and 51.47% had discussions with a health professional about their wife's delivery place (Table 3).

Predictors of husbands supporting wives to use obstetrics care services

Residence, level of education, occupation, monthly income, number of children, time to reach a health facility, ANC and institutional delivery accompanying experiences, perceived cost of obstetrics care services, and importance of supporting wives to use obstetrics care services were candidate variables in the bivariable binary logistic regression analysis with a p value less than 0.20. In the multivariable binary logistic regression analysis, residence (urban), level of education (diploma and above), ANC and institutional delivery accompanying experiences, and perceived importance of supporting wives to use obstetrics care services (positive) were found to have a significant association with the outcome variable (at $p<0.05$) (Table 4).

Table 2: Perceived cost of obstetric care services and the importance of supporting wives to use obstetrics care services, Dire Dawa administration, Ethiopia, 2022, (n=610).

Variables	Category	Frequencies			
	Perceived	**Sub-frequencies**	**Dichotomized frequency**		**Percentage (%)**
Perceived cost of obstetric care services	Absolutely free	16	Affordable	244	40
	Partially free	25			
	Affordable	203			
	Expensive	345	Expensive	366	60
	Very expensive	21			
Perceived importance of supporting wives to use obstetrics care services	Strongly agree	126	Positive	316	51.8
	Agree	190			
	Neutral	24	Negative	294	48.2
	Disagree	205			
	Strongly disagree	65			

Table 3: Husbands' support assessment in obstetrics care service use of wives, Dire Dawa administration, Ethiopia, 2022, (n=610).

Questions to assess husbands' support in obstetrics care service use of wives	Frequency (Yes)	Percentage (%)
Accompanied ANC (last child)	319	52.3
Supported birth preparedness (prepared money, transportation, etc.)	328	53.77
Accompanied or encouraged institutional delivery by SBA	320	52.46
Had discussions with health professionals on the place of wives' delivery	314	51.47
Had discussions with relatives or friends on the place of wives' delivery	298	48.85
Had discussions with their wives concerning the place of delivery by SBA	317	51.97

Table 4: Multivariable binary logistic regression analysis of factors associated with husbands in supporting wives to use obstetrics care services, Dire Dawa administration, Ethiopia, 2022, (n=610).

Variables	Category	Husbands' support		COR (95% CI)	AOR (95% CI)
		Good (%)	Poor (%)		
Residence	Rural	160 (50.6)	95 (32.3)	1	1
	Urban	156 (49.4)	199 (67.7)	2.03 (1.55-3.00)***	2.55 (1.75-3.73)***
Level of education	Unable to read and write	58 (18.4)	42 (14.3)	1	1
	Primary (1-8th)	90 (28.5)	80 (27.2)	1.23 (0.75-2.02)	1.19 (0.70-2.10)
	Secondary (9-10)	71 (22.5)	47 (16)	0.91 (0.53-1.57)	0.81 (0.44-1.49)
	Preparatory (11-12)	59 (18.7)	63 (21.4)	1.47 (0.87-2.51)	1.42 (0.78-2.60)
	Diploma and above	38 (12)	62 (21.1)	2.25 (1.28-3.97)	2.00 (1.10-3.74)*
Occupation	Currently no job	22 (7)	8 (2.7)	1	1
	Farmer	98 (31)	68 (23.1)	1.91 (0.80-4.54)	1.27 (0.49-3.26)
	Merchant	147 (46.5)	166 (56.5)	2.92 (1.89-7.20)*	2.13 (0.79-5.72)
	Employee (private and public)	49 (15.5)	52 (17.7)	3.10 (1.34-7.19)**	2.30 (0.92-5.70)
Monthly income	<2000 ETB	30 (9.5)	22 (7.5)	1	1
	2000-3500 ETB	211 (66.8)	164 (55.8)	1.06 (0.59-1.91)	0.96 (0.49-1.88)
	>3500 ETB	75 (23.7)	108 (36.7)	1.96 (1.05-3.70) *	1.92 (0.83-4.46)
Number of children	≥3	242 (76.6)	203 (69)	1	1
	1-2	74 (23.4)	91 (31)	1.48 (1.02-2.10) *	1.40 (0.93-2.10)
ANC accompanying experience	No	266 (90.5)	28 (9.5)	1	1
	Yes	254 (80.4)	62 (19.6)	2.32 (1.44-3.74) **	1.79 (1.04-3.07)*
Institutional delivery accompanying experience	No	277 (94.2)	17 (5.8)	1	1
	Yes	236 (74.7)	80 (25.3)	5.52 (3.18-9.59)***	6.20 (3.4-11.33)***
Time to reach health facility (on foot)	>1 hour	102 (32.3)	74 (25.2)	1	1
	30 minutes-1 hour	168 (53.2)	159 (54.1)	1.30 (0.90-1.89)	1.46 (0.96-2.21)
	< 30 minutes	46 (14.6)	61 (20.7)	1.83 (1.12-2.97)*	1.63 (0.95-2.82)
Perceived cost of obstetrics care services	Expensive	137 (46.6)	157 (53.4)	1	1
	Affordable	107 (33.9)	209 (66.1)	1.70 (1.23-2.36)**	1.13 (0.70-1.86)
Perceived importance of supporting wives to use obstetrics care services	Negative	93 (31.6)	201 (68.4)	1	1
	Positive	75 (23.7)	241 (76.3)	1.49 (1.04-2.12)	1.98 (1.30-3.00)**

NB: Significant at *p=<0.05, **p=<0.01, ***p=0.000, 1=reference

DISCUSSION

This study revealed that one in two husbands supports wives to use obstetrics care services by health professionals, or 51.8% (95% CI: 47.5%-55.4%). Besides, it revealed factors associated with husbands in supporting wives to use obstetrics care services by health professionals like residence, level of education, perceptions, and prior ANC and institutional delivery accompanying experiences.

The present study finding was in line with a study conducted in Tanzania (50.6%).[22] However, it was lower than a study done in Indonesia (59.6%).[23] This discrepancy might be due to socio-cultural variation and health settings. Having access to obstetrics care services and community health education that involves both men and women could make a difference, which are higher in Indonesia than Ethiopia and our study area.

The present study finding was higher than studies conducted in Bangladesh (40%), Ghana (35%), and Tanzania (20%).[10,24,25] The possible explanations for this discrepancy might be variations in the socio-cultural context, access to information, sample size, study period differences, or community health education interventions. For instance, a study done in Bangladesh revealed that level of husband support was associated with exposure to electronic media, suggesting the need for health information to husbands through community health

education programs.[10] Likewise, a study of Ghana revealed socio-cultural factors (like type of marriage and number of children, prohibitive cultural norms, and gender roles) and health setting issues (like distance to a health facility, attitude of health workers, and unfavorable health policies) as factors of husbands to support wives to use obstetric care services.[24] But these are not significant issues in our study area. Moreover, the study of Tanzania revealed that long waiting times to receive the service and limited access to information were factors for husbands to support wives to use obstetric care services, which were not in our study.[25]

Moreover, our finding also showed higher level of husbands' support for wives to use obstetric care services than studies done in other areas of Ethiopia, such as Ambo town (41.9%), Addis Ababa (34.8%), Debre Tabor (379%), Lemo district (388%), and Mareka district (41.3%).[5,13,16,17,20] This might be due to variations in access to information, sample size, study period differences, and interventions by health extension workers in teaching community health education in different areas.

In present study, compared to urban residents, husbands in rural areas were less likely to support wives in using obstetrics care services. This was consistent with a study done in Tanzania.[25] Access to health facilities may be a contributing factor to such variation between rural and urban areas, which could be explained by a lack of health facilities, both private and governmental, in rural areas.

In the present study, husbands with a lower level of education were less likely to encourage wives to use obstetrics care services. This was supported by research conducted in Bangladesh, Ghana, Nigeria, and Kenya.[24,26-28] This was also supported by research conducted in Ethiopia.[4,19,20,29] This might be because educated husbands are more likely to have access to different sources of information about the importance of obstetrics care services and possible complications related to pregnancy and childbirth. Furthermore, studies show that educated husbands are more likely to allow their wives self-decision or autonomy in obstetrics care service utilization. Furthermore, the more husbands are educated, the more they might have spousal communication, which could increase husbands' support of wives to use obstetrics care services.[3,16,25,30,31]

In this study, husbands who had ANC accompanying experience before the last baby were nearly twice as likely to support wives to use obstetrics care services. This was consistent with studies done in Nigeria and Myanmar.[14,32] The possible explanation might be that the prior ANC accompanying experience could help them to realize the benefits and complication readiness, and this might help them to support the current one.

Similarly, husbands who had institutional delivery accompanying experience before the last baby were approximately six times more likely to support wives in using obstetrics care services. Two studies in Ethiopia show similar verdicts.[4,20] This might be because the prior institutional delivery accompanying experience could help them comprehend the probable complications related to childbirth.

In this study, husbands with a positive perception of the importance of supporting wives to use obstetrics care services were about twice as likely to support wives to use them. This was consistent with studies done in Ethiopia.[4,20] One possible explanation might be that those who had a favorable perception of the use of obstetrics care services by wives were aware of the benefits and complications that can occur during pregnancy and childbirth, both for the mother and the newborn.

Strengths

The study was related to husbands' support for wives to use obstetrics care services by health professionals, which is directly related to the issue of ANC and institutional delivery obstacles, which is an important topic in obstetrics. A community-based study design was used, which is important to dig out the actual study inputs regarding the study participants since husbands might be freer to respond than in an institution-based study. The data collectors were experienced and local language speakers and knew the local norms and times at which participants were comfortable; this was very helpful to probe the actual information and reduce the non-response rate. The study included both husbands from urban and rural areas, which increases the external validity of the study. The findings of the study could have implications for social, research, and practice (health professionals and health care managers).

Implications for social: The study findings imply the need for continuous awareness for the community and men, considering their education level and residence, about the need for husbands' involvement in promoting obstetrics care service use by wives by SBA.

Implications for research: The study implies the need for future research to identify barriers to husbands' support in obstetrics care service use by wives using different research approaches and a larger sample size at the community level, involving both men and wives.

Implications for Practice (Health professionals and health care managers): The study implies health facilities require spouse counseling to encourage and support wives to use obstetrics care services when husbands are accompanying ANC and institutional delivery.

Limitations

Due to the cross-sectional nature of the study, it did not show causal relationships between variables. Because we used the interview response method, we were limited by

recall bias and some social desirability biases. However, scientific procedures were used to minimize the possible effects of these limitations, such as a contextually modified and pre-tested questionnaire, using easy and simple words to understand, giving time to memorize, and explaining the aims of the study. Besides, we had provided intensive training for data collectors and supervisors before the actual data collection on how to approach and interview the participants privately to minimize social desirability bias. Therefore, using appropriate and scientific procedures at the time of interviewing participants addressed these limitations.

CONCLUSION

One in two husbands supports wives to use obstetrics care services provided by health professionals. This support was significantly associated with residence, level of education, perceptions, and prior ANC and institutional delivery accompanying experiences. The authors recommended to health facilities and stakeholders that they strengthen husbands' awareness of obstetrics care services by creating continuous community awareness.

ACKNOWLEDGEMENTS

Authors would like to thank to Dire Dawa university for the financial support of this study. Next, to data collectors, and study participants also, to those individuals who directly or indirectly contributed their skills and knowledge toward the accomplishment of this study.

Funding: Dire Dawa University, Ethiopia.
Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. WHO. Definition of skilled health personnel providing care during childbirth: the 2018 joint statement by WHO, UNFPA, UNICEF, ICM, ICN, FIGO and IPA. Available at: wwwwhoint/reproductivehealth/2018. Accessed on 12 January, 2024.
2. UN. World Mortality 2019 Highlights. ST/ESA/SERA. 2019;432. Available at: https://www.un.org/en/development/desa/population/publications/pdf/mortality/WMR2019/WMR2019_Highlights.pdf. Accessed on 12 January, 2024.
3. Mohammed BH, Johnston JM, Vackova D, Hassen SM, Yi H. The role of male partner in utilization of maternal health care services in Ethiopia: a community-based couple study. BMC Pregnancy Childbirth. 2019;19(1):1-9.
4. Tamirat Z, Tilahun T, Abdulahi M. Male Involvement on Skilled Delivery Care Utilization in Mareka Woreda, Southern Ethiopia: A Community Based Cross Sectional Study. Sc J Public Health. 2015;3(5):699-706.
5. Fekene DB, Bulto GA, BEM, Gemeda GM. Male Partner's Involvement and it's Associated Factors in Promoting Skilled Birth Attendance among Fathers who have Children Less than One Year of Age in Ambo Town, Ethiopia. EC Gynaecol. 2017;8.6(2019):465-74.
6. EMDHS. Ethiopian Public Health Institute (EPHI) [Ethiopia] and ICF. 2019. Ethiopia Mini Demographic and Health Survey 2019: Key Indicators. Rockville, Maryland, USA: EPHI and ICF. The DHS Program ICF Rockville, Maryland, USA. 2019.
7. UNICEF. Levels and Trends in Child Mortality. 2019. Available at: https://www.unicef.org/reports/levels-and-trends-child-mortality-report-2019. Accessed on 12 January, 2024.
8. WHO. Trends in maternal mortality 2000-2017 Estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division:Geneva: World Health Organization; 2019. Licence: CC BY-NC-SA 3.0 IGO. 2019. Available at: https://www.unfpa.org/featured-publication/trends-maternal-mortality-2000-2017. Accessed on 12 January, 2024.
9. Asefa F, Ayele G, Yadeta D. Male partners involvement in maternal ANC care: The view of women attending ANC in Harari public health institutions, Eastern Ethiopia. Sci J Public Health. 2014;2(3):182-8
10. Bishwajit G, Tang S, Yaya S. Factors associated with male involvement in reproductive care in Bangladesh. BMC Public Health. 2017;17(1):3.
11. Cabridens M, Tolve S. AMREF's Stand Up For African Mothers Campaign: Training Midwives to Reduce Maternal Mortality in Africa. J Field Actions. 2012;5.
12. FMOH, CSA, AAU, EPHA. Performance Monitoring and Accountability 2020 (PMA2020) About PMA2020/Ethiopia: PMA-MNH(maternal and Neonatal Health) Results Brief. 2020.
13. NA K, YM A. Male Partners'Involvement in Institutional Delivery in Rural Ethiopia:Community Based Survey. J Women's Health Care. 2015;4(3):239.
14. Falade-Fatila O, Adebayo AM. Male partners' involvement in pregnancy related care among married men in Ibadan, Nigeria. Reproductive Health. 2020;17(1):14.
15. Asefa F, Geleto A, Dessie Y. Male Par tners Involvement in Maternal ANC Care: The View of W omen Attending ANC in Hararipublic Health Institutions, Eastern Ethiopia. Sci J Public Health. 2014;2(3):182-8.
16. Mohammed BH, Johnston JM, Vackova D, and SMH, Yi H. The role of male partner in utilization of maternal health care services in Ethiopia: a community-based couple study. BMC Pregnancy and Childbirth. 2019;19:28.

17. Tamirat Z, Tilahun T, Abdulahi M. Male Involvement on Skilled Delivery Care Utilization in Mareka Woreda, Southern Ethiopia: A Community Based Cross Sectional Study. Sci J Public Health. 2015;3(5):699-706.
18. DDHB. Dire Dawa Health Bereau Health Demographic Statistics. 2022.
19. Fekene DB. Male Partner's Involvement and it's Associated Factors in Promoting Skilled Birth Attendance among Fathers who have Children Less than One Year of Age in Ambo Town, Ethiopia, 2017. EC Gynaecology. 2019;8:465-74.
20. Tessema KM, Mihirete KM, Mengesha EW, Nigussie AA, Wondie AG. The association between male involvement in institutional delivery and women's use of institutional delivery in Debre Tabor town, North West Ethiopia: Community based survey. PloS One. 2021;16(4):e0249917.
21. AMREF. AMaRF. Putting African mothers and children first, strengthening community capacity to achieve MCH outcomes baseline survey of three districts in Eastern Africa. Midterm Evaluation repor. 2010.
22. Chibwae A, Kapesa A, Jahanpour O, Seni J, Basinda N, Kadelya E, et al. Attendance of male partners to different reproductive health services in Shinyanga District, North western Tanzania. Tanzania J Health Res. 2018. 2018;20(2):1-11.
23. Agushybana F. Influence of husband support on complication during pregnancy and childbirth in Indonesia. J Health Res. 2016;30(4):249-55.
24. Craymah JP, Oppong RK, Tuoyire DA. Male involvement in maternal health care at Anomabo, central region, Ghana. Int J Reproductive Med. 2017;2017:2929013.
25. Gibore NS, Ezekiel MJ, Meremo A, Munyogwa MJ, Kibusi SM. Determinants of men's involvement in maternity care in Dodoma Region, Central Tanzania. J Pregnancy. 2019;2019:7637124.
26. Yaya S, Bishwajit G, Ekholuenetale M. Factors associated with the utilization of institutional delivery services in Bangladesh. PloS one. 2017;12(2):e0171573.
27. Dahiru T, Oche OM. Determinants of antenatal care, institutional delivery and postnatal care services utilization in Nigeria. Pan Afr Med J. 2015;21:321.
28. Nanjala M, Wamalwa D. Determinants of male partner involvement in promoting deliveries by skilled attendants in Busia, Kenya. Global J Health Sci. 2012;4(2):60.
29. Gize A, Eyassu A, Nigatu B, Eshete M, Wendwessen N. Men's knowledge and involvement on obstetric danger signs, birth preparedness and complication readiness in Burayu town, Oromia region, Ethiopia. BMC Pregnancy Childbirth. 2019;19(1):1-9.
30. Mersha AG. Male involvement in the maternal health care system: implication towards decreasing the high burden of maternal mortality. BMC Pregnancy Childbirth. 2018;18(1):1-8.
31. Mihiretu Alemayehu Arba, Tadele Dana Darebo, Koyira MM. Institutional Delivery Service Utilization among Women from Rural Districts of Wolaita and Dawro Zones, Southern Ethiopia; a Community Based Cross-Sectional Study. PLoS One. 2016;11(3):e0151082.
32. Wai KM, Shibanuma A, Oo NN, Fillman TJ, Saw YM, Jimba M. Are husbands involving in their spouses' utilization of maternal care services?: a cross-sectional study in Yangon, Myanmar. PloS One. 2015;10(12):e0144135.

Cite this article as: Yasin AM, Tekle MH, Asegid DT, Beshir AB, Amera TG, Tefera YM. Predictors of husbands in supporting wives to use obstetrics care services by health professionals, Dire Dawa administration, Ethiopia: a community based-cross-sectional study. Int J Sci Rep 2024;10(5):156-64.