

Factors Associated with Utilization of Long Acting and Permanent Contraceptive Methods among Women of Reproductive Age Group in Jigjiga Town

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Abstract

Background: Contraceptive use including short acting, long acting and permanent methods positively influence the socio-economic development of a nation by allowing families to space and limit their family size to their economic capacity. Demand for Long acting and permanent methods (LAPM) of contraception as determined by utilization and unmet need for LAPMs provide reliable information for providers.

Objective: To assess factors associated with utilization level of long acting contraceptive methods and associated factors among married women of reproductive age in Jigjiga town, Somali region, Eastern Ethiopia Feb.2016.

Methods: A community based cross sectional study supplemented with qualitative inquiry was conducted among randomly selected married women of reproductive age in Jijiga town from Feb to March 2014. A structured and pretested, interview administered questionnaire was used to collect data which was entered to computer by using EpiData version 3.1 and exported to SPSS version 16.0. Bivariate and multivariate logistic regression was employed to determine independent predictors of long acting and permanent contraceptive utilization level and associated factors.

Result: Three hundred eighty three women of reproductive age group participated in the quantitative survey making a response rate of 97.2%. The overall prevalence of long acting and permanent contraception was 34 [8.8%]. Educational level AOR=1.53; 95% CI [0.25-9.62] Occupation AOR=2.0; 95% CI [1.00-4.50] and support from husband AOR=0.09; 95% CI [0.01-0.57] were significantly associated with long acting and permanent contraceptive utilization.

Conclusion: The overall prevalence of long acting and permanent contraceptive method was low. Knowledge of contraceptive and occupation of women have significant association with use of long acting and permanent contraceptive. Extensive health information should be provided for both husband and women.

Keywords: Long acting; Permanent; Contraceptive factors; Somali; Ethiopia

Introduction

Ethiopia is the second most populous country in Sub-Saharan Africa with a total Fertility Rate of 5.4 children per women, with a slight decline from the 2000 EDHS (Ethiopian Demographic Health Survey) of 5.5 children per women and then decreased further to 4.8 children in 2011. It is 7.1 children per women in the study area Somali region which is higher than the national average [1]. Fertility is one of the three principal components of population dynamics that determine the size and structure of the population of a country. One of the targets of the Ministry of Health, with respect to improving maternal and child health, is to increase the contraceptive prevalence rate (CPR) to 66 percent by 2015.

In order to achieve this target, the Ministry has given priority to the provision of safe motherhood services such as family planning in the community [1]. Knowledge of contraception is nearly universal in Ethiopia. Three in every ten currently married women (29 percent) are using a method of contraception, mostly modern methods (27 percent). By far the most popular modern method, used by 21 percent of currently married women, is injectable. Use of modern methods among currently married women has increased from 6 percent in the 2000 EDHS to 27 percent in the 2011 EDHS largely due to the sharp increase in the use of injectable, from 3 percent in 2000 to 21 percent in 2011.

Knowledge of family planning is a prerequisite to obtaining access

to and using a suitable contraceptive method in a timely and effective manner [1,2]. Family Planning service that provides accurate and complete information about contraceptive methods meets the need of their clients. Still, early marriage and producing too many children, which are close to each other is a common practice of developing countries including Ethiopia [2-4]. The modern contraceptive prevalence rate—the proportion of women of reproductive age who are using a modern contraceptive method—varies widely across the region. Among women of reproductive age, Contraceptive Prevalence Rate (CPR) for modern methods ranged from 1.2 percent in Somalia to 60.3 percent in South Africa [1,4]. Birth intervals are important because short intervals are strongly associated with childhood mortality. The age at which childbearing begins can also have a major impact on the health

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Received February 09, 2017; Accepted February 20, 2017; Published February 28, 2017

Citation: Abdisa B, Mideksa L (2017) Factors Associated with Utilization of Long Acting and Permanent Contraceptive Methods among Women of Reproductive Age Group in Jigjiga Town. *Anat Physiol* 7: 256 doi:10.4172/2161-0940.1000254

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and well-being of both the mother and the child. Childbearing begins early in Ethiopia. More than one-third (34 percent) of women age 20-49 gave birth by age 18, and more than half (54 percent), by age 20 [1].

More than half (56 percent) of births occur within three years of a previous birth; 20 percent occur within 24 months. Research has shown that short birth intervals are closely associated with poor health of children, especially during infancy. Children born too soon after a previous birth, especially if the interval between the births is less than two years, are at increased risk for health problems and death at a young age. Longer birth intervals improve the health status of both mother and child. Twelve percent of adolescent women, age 15-19, are already mothers or pregnant with their first child [5,6].

Methods

Study period and area

The study was conducted in Fafan zone of Somali regional state, Eastern Ethiopia. Fafan zone is among the 9 zones of the regional states located at 676 km from Addis Ababa the capital city of Ethiopia. Based on the 2007 Census conducted by the Central Statistical Agency of Ethiopia (CSA), this Zone has a total population of 967,652, population of which 526,398 are men and 441,254 are women. The study was conducted from Feb to March 2014.

Study design and sampling

A community based cross-sectional study design supported by qualitative data was used. The source population was all married women of child bearing age 15-49 in the selected kebele [7]. The sample size was calculated using a single population proportion formula with the following assumption: The utilization of LAPMs was shown to be 8.7% with desired precision of 4% at 95% confidence level, design effect of 2 and power of 80%. A multi stage sampling was used to select the required sample size. All kebeles in the town were given equal chance to randomly select 4 kebeles. Sample size was proportionally allocated for the selected kebeles depending up on the number of Eligible women in the randomly selected kebeles [8]. A simple random sampling was applied to select the required households from the selected kebeles. One eligible woman is expected from each household. In case more than one eligible woman is living in same household one woman was randomly selected. For qualitative studies participants of FGDs were selected from kebeles which were not included in the quantitative study. Four FGDs were conducted among married women and their husband.

Data collection method and tools

Data from the study subjects was collected by using structured and interview administered questionnaire which is adapted from the behavioral surveillance. Questionnaire in English language was used for data collection. Socio demographic characteristics like Age, religion, Ethnicity, etc. and reproductive health history such as contraceptive use, communication of sexual issues with their partner etc. are included in the questionnaire. Data was collected by people having diploma and supervised by BSc Holder. Training was given for all data collectors and supervisors for two days regarding the data collection instrument, Ethical consideration and objectives of the study by the principal investigators.

Qualitative data collection was also facilitated by two individuals having BSc qualification.

Data management and analysis

The quantitative data was checked for completeness and consistency

by double entry verification. Data was entered in to computer by using Epi Data Version 3.1 and analyzed by using SPSS (statistical packages for Social Sciences) version 16.0 after template formation and data clearance. First descriptive analysis was carried out to explore the socio-demographic characteristics of the respondents [9,10]. Bivariate analysis was used to examine the relationship between the outcome variable and selected independent variables. Odds ratio was used to determine the association between the outcome and selected independent variables. Finally a multivariable logistic regression was used to determine the independent predictors of long term and permanent contraceptive utilization. Qualitative data was analyzed by using content analysis and open code version 3.0 was used. The qualitative data was triangulated with the quantitative survey.

A brief orientation was given for the study subjects regarding the study in general about the objectives of the study and its confidentiality in detail. Finally, data was entered and cleaned by the principal investigators.

Inclusion criteria

All women of child bearing age and living in the area for more than six months were included in the study

Exclusion criteria

Severely ill and disabled women were excluded from the study

Strength and limitation of the study

Strength: The study was Pretested and supported with qualitative data

Limitations: The study has used cross sectional study design and prone to recall bias. The study design also cannot test cause and effect relationship between outcome variables and explanatory variables [11].

Operational and term definitions

Birth interval: the length of time between two successive live births.

Demand for LAPMs: The sum of LAPM being used (Met need) and method that is desired but not used due to any reason (unmet need).

Long-acting and permanent methods of contraception: are defined in this paper as those methods that provide pregnancy protection for more than one year per "application." They include the intrauterine device (IUD), implants, female sterilization or tubal ligation (TL), and vasectomy [12-15].

Unmet need for LAPMs of Contraceptive: A condition of wanting to postpone or avoid pregnancy but not using any of the LAPMs.

Unmet need for LAPMs of contraceptive during pregnancy: A phrase to describe a woman who is pregnant at the time of the study but whose pregnancy was not intended.

Unmet need for limiting: When women who do not want any more children, but not using any of LAPM or others methods.

Unmet need for spacing: When a woman who does not want to have pregnancy soon after delivery or want to space for two years but not using any of LAPM or other methods.

Ethical considerations

First Ethical clearance was obtained from Jigjiga University College of health sciences school of public health Ethics committee and study protocol was approved [16,17]. Then, a written letter was obtained from

Jigjiga University Research and community service directorate Somali region health bureau was communicated through formal letter from JJU research and community service directorate. Information about the study will give for the participants, including purpose and procedures, potential risk and benefits so that encourage provision of accurate and honest responses. Study subject was told participation is their volunteer and there was no interpretation of a single response (fully confidential). An informed consent was obtained from the study subjects and they will be told that they have a full right to refuse to response either partly or completely. But, participant was also informed that their genuine responses are vital importance for my study.

Results

Three hundred eighty three women of reproductive age group women were participated in the quantitative survey making a response rate of 97.2%. While eleven (2.8%) of the questionnaires were discarded because of incompleteness. The majority, 186 (48.5%) of participants were in the age group of 25-34 with mean age of 28.3 years (ranges from 15-49, SD-6.16 years, median age- 28). Nearly 109(28.4%) of the participants were Somali followed by Amhara 92(24%) and Oromo 89(23.2%) respectively by ethnicity. Muslim is the major religion contributing for 190 (48.2%) of all followed by Orthodox and Protestant 161(42.0%) and 24(6.2%), respectively. Furthermore, more than half of participants, 246 (64.0%) were housewives followed by Gov/NGO employees, 110 (28.7%) and student 20(5.2%). Moreover, about 112 (29.2%) of them cannot read and write whereas 49(12.8%) have modern education above grade 12, and out of which 8 (16.3%) have college/university education (Table 1).

Significant proportion of the respondents 111(29%) had partners whose educational level is above grade 12 whereas, only 37(9.4) of the participants partners' cannot read and write. Almost all the study participants are the owner of TV and radio 307(80.1%) and 237(61.8%) respectively. Regarding the decision about a number of children only few respondents 24(7.3%) had a right to decide about a number of

children and majority of the respondents 211(55%) decide with their husband. Significant proportion 113 (29.5%) of the study participants claimed that the number of children is decided by God/Allah.

Reproductive health characteristics, knowledge and utilization levels

Of the total participants, nearly half of them, 189 (48.5%) were married at or before 18 years of age and 137(34%) of them gave birth at or before 20 years of age. About 133(33.7%) participants have more than four family size and the average family size of participants was 4.5 (SD-2.0, ranges from 1-16). Moreover, majority 192(48.7%) of participants want to have more than three children.

Three hundred one (96.7%) of the respondents wants more children and 44.4% of them wants with two years. Significant proportion 197(63.4%) of the study participants want 1-4 more children whereas 10(3.2%) responded as if they no more want children. Regarding previous history of giving birth so far majority of the respondents 311(81.2%) had previous history of child birth whereas 72(18.8%) were not. Regarding the participants' knowledge about modern contraceptives majority of them 328(85.6%) know pills whereas only 8(0.02%) were know male sterilization (Tables 2 and 3).

Majority of the study participants 248(64.7%) discuss about contraceptives with their partner. Regarding their source of information about modern contraceptives majority of the study participants 143(37.3%) and 103(26.8%) claimed their main source of information about modern contraceptives is health professionals and media respectively. Significant proportion of the participants 157(40.9%) did not know LAPM used for many years after having it once Of the 63 respondents who ever used modern contraceptives 57(90.4%) have had knowledge about contraceptives whereas only 6(1.8%) of the respondents has used modern contraceptives without having the knowledge about it making the overall prevalence of modern contraceptive utilization 63(16.4%).

The overall prevalence of modern contraceptive utilization (both short acting and long acting utilization) was determined to be 63 (16.4%).

The qualitative result also revealed: approach of health professionals and their skill also matters for using modern contraceptives specially the long acting and permanent type which need more skilled professionals. The other major factor for not using long acting contraceptives especially IUCD arises from a nature of providers (being male or female). Many females are not a such comfortable or feel free to receive services like IUCD insertion from male professionals [18-21].

Significant proportion of the participants 40(68.3%) who ever used the modern contraceptives had media exposure about LAMP within the last 12 months mainly from TV 175 (90%). The overall long acting and permanent contraceptives utilization was determined to be 34(8.8%).

Regarding participants' response about the utilization of LAMP, majority of them 175(45.5%) said it was used for child spacing. Significant proportion of the study participants knew about IUCD and implant 95(24.8%) and 109(28.5%) respectively. They said it have minimal side effect and also reversible 91(23.7%) and 75(19.6%) respectively however nobody knew about vasectomy and female sterilization. Significant proportion of the study participants 205(53.5%) agreed that child spacing protect both mothers and children from death whereas a few respondents 67(17.5%) disagree with it. Regarding the accessibility women's of reproductive age group to all methods of contraceptives,

Variables	Frequency	Percentage (%)
Age group of participants (n=383)		
15-24	123	32.1
25-34	186	48.7
35-44	66	17.2
>=45	8	2.1
Educational Status (n=383)		
Illiterate	112	29.2
Read and write	11	2.9
Modern education (1-12)	211	55.1
College or university	41	10.7
	8	2.0
Occupation (n=383)		
Student	20	5.2
Gov/NGO/private	110	28.7
House wife	246	64.0
Others	7	1.8
Religion (n=383)		
Muslim	190	49.6
Orthodox	161	42.0
Protestant	28	7.3
Other	4	1.0
Ethnicity (n=383)		
Somali	109	28.4
Amahra	92	24.0
Oromo	89	23.2
Garage	78	20.3
Others	15	3.9

Table 1: Sociodemographic characteristics of study subjects, Jigjiga Ethiopia.

Variables	Ever used cont.		COR (95% CI)	AOR (95% CI)
	Yes	No		
Age				
15-24	25	97	1	
24-34	29	163	0.43(0.05-3.56)	
35-44	8	61	0.62(0.07-0.51)	
>=45	1	9	0.84(0.09-7.59)	
Family size				
1-4	49	205	1	
5-9	13	119	0.71(0.45-1.12)	
9-14	1	2	1.62(1.06-2.47)	
>=14	0	2	0.91(0.35-2.38)	
Education				
Illiterate	7	100	1	
Read and write	3	9	6.69(2.50-17.86)*	
1-4	7	56	1.40(0.33-5.95)	
5-8	14	65	3.75(1.38-10.16)*	1.53(0.25-9.62)*
9-12	17	69	2.17(0.93-5.05)	
12+	15	32	1.90(0.84-4.28)	
Want to use LAM				
Yes	109	34	1.95(1.04-3.65)*	
No	284	0	1	
Religion				
Muslim	18	175	1	1
Protestant	5	21	1.11(0.11-11.02)	
Orthodox	38	127	3.24(0.32-32.79)	
Catholic	1	3	1.40(0.11-16.45)	
Others	1	4	11.49(4.34-30.39)	5.26(1.51-18.33)*

*Implies statistical significance at P-value <0.05.

Table 2: Association of selected Sociodemographic variables with utilization of modern contraceptives among the respondents.

health facilities and professionals capable of providing the services highly affects its utilization rate. majority of them 372(97.1%) agreed that they do have access to all methods of contraceptives including long acting and permanent methods, health facilities and professionals capable of providing the services while only a few respondents 11(2.9%) said they did not have access to all methods of contraception, health facilities and professionals capable of providing the services.

Regarding the trust only few respondents 24(6.2%) lack trust from the health professionals in maintaining their confidentiality about long acting and permanent contraceptive method utilization.

Even if majority of the respondents, trust health professionals in maintaining confidentiality significant proportion of the respondents 139(36.3%) agreed with the negative effect of long acting and permanent contraceptive methods on women's womb and claim their doubt on the professionals to maintain their confidentiality. Twenty one (33.3%) respondents have ever shifted contraceptive methods mainly from pills to inject able and 10(15.8%) from inject able to implants [22]. Vast majority of the respondents 39(61.9%) and 19(30.1%) said they get their contraceptive methods from governmental hospital and health centers respectively. Significant proportion of the study participants 195(50.9%) who are not using modern contraceptives specifically long acting and permanent methods raised fear of side effect as their main

Variables	Ever used cont.		COR (95% CI)	AOR (95% CI)
	Yes	No		
Ethnicity				
Somali	8(12.7)	92(27)	1	
Gurage	18(29)	70(18)	0.96(0.27-3.37)	
Amhara	23(37)	95(24)	3.83(1.00-14.67)	
Oromo	10(16)	103(31)	1.04(0.30-3.56)	
Others	4(6)	12(3.6)	3.43(0.93-12.65)	
Occupation				
House wife	31(12)	225(88)	1	1
Gov't employee	12(31)	27(69)	0.711(0.23-2.23)	
Private employee	4(13)	26(87)	2.23(0.85-6.17)	
Daily laborer	3(14)	18(86)	2.05(0.50-8.29)	
Others	13(27)	35(73)	0.72(0.20-2.59)	2.0(1.00-4.50)*
More child				
Within 2 years				
Yes	14	161	3.31(1.76-6.23)	
No	49	170	1	
How many more child u want				
4-Jan				
5-9	39	158	1	
>=9	4	30	0.22(0.07-0.64)*	
	4	73	0.41(0.09-1.75)	
How many more child u want in life				
1-4				
9-May				
14-Oct				
>=15	38	138	1	1
	10	76	0.14(0.01-1.06)	
Do you discuss	6	60	0.29(0.03-2.39)*	0.20(0.03-2.39)*
Yes	0	27	0.38(0.44-3.35)	
No				
	56	192	1.7(0.07-0.39)*	1.2(0.01-3.45)*
	7	139	1	1
Husband support				
LAPM				
Agree	29	72	1	
Neutral	7	19	0.45(0.25-0.82)	
Disagree	27	147	0.49(0.19-1.30)	0.09(0.01-0.57)*
LAMdangerous is				
Agree				
Neutral	18	121	2.76(1.43-5.30)	
Disagree	15	44	1.20(0.58-2.48)	1.23(0.98-4.56)*
	30	73	1	
Have TV				
Yes				1
No	55	252	1	1
	8	79	0.46(0.21-1.06)	0.53(0.02-1.63)*

*Implies statistical significance at P-value <0.05 Variables without statistical significance were not labelled Under AOR (95% CI) column.

Table 3: Association of selected Sociodemographic variables with utilization of modern contraceptives among the respondents.

reason for not using it followed by intention to have more children 77(20.1%) (Table 4).

The qualitative study report is for instance: A 26 years old women participant said attitude towards using long acting and permanent contraceptive depends on different factor and different from women to women depending up on their age, religion, education and need for more children. She added I may personally interest to utilize long acting contraceptives because I know the advantage and disadvantage of using it. Reversely if you ask my mom her interest it will be negative even shame to talk about using contraceptives and sometimes considered as a big sin. The other participant said in terms of interest they have the attitude to use it but the problem is when we come to action there is significant challenges both from internal and external sources. she added women prefers short acting methods because of many factors but recently as a result of intensive awareness creation activities several women started to use the long acting one.

Factors associated with utilization of LAMPs

Contraceptive utilization highly depends on educational level of the study subjects and their occupation. Those women who learnt above grade 5 are high likely to utilize modern contraceptives compared to illiterate women (AOR: 1.53; 95% CI 0.25-9.39). In addition women who discuss about long acting contraceptive with their husband are about 6.2 times high likely to use long acting contraceptives compared to those who didn't discuss about long acting contraceptives with their husband. The FGD result also supports this. One women participant said male dominance in the house hold is unmentioned and the most significant factors hindering women from using the contraceptives. She added if I want to use contractive leave alone long acting even the short acting one I need to keep it in a very secret way unless and otherwise it is a big crime in front of him.

Of the total of 63(16%) who have ever used modern contraceptives about 57(90.4%) of them have discussed about contraceptive issue with their spouse. Significant proportion of women about 31.3% of women have the intention to use long acting contraceptives but they didn't yet started using it because of fear of side effect and other reasons. AOR: 95% CI 1.23; 0.98-4.56. Support from husband and occupation of the participants are also highly related with utilization of long acting and permanent contraceptives. Women who had a support from their husband, working in private and Nongovernmental organizations are high likely to use long acting and permanent contraceptive methods. AOR: 95% CI 0.09; 0.01-0.57 and (AOR: 95% CI 0.02; 0.01-0.40) respectively. Intention to have more children is negatively associated with long acting and permanent contraceptive utilization. AOR: 95% CI 0.25; 0.03-2.39. On the other hand women who agreed that long acting and permanent contraceptives are not dangerous are high likely to use it AOR: 95% CI 1.23; 0.98-4.56. In addition women who have TV are about 53% high likely to use long acting and permanent methods compared to those who had not.

Discussion

Despite the increase in contraceptive use worldwide over the last decade, there is still discrepancy in the need to limit birth and utilization of modern contraceptives specifically long acting and permanent contraceptive methods in sub-Saharan Africa specifically Ethiopia. Contraceptive utilization positively influences the socio-economic development of a country by allowing families to space and limit their family size to their economic capacity [19]. In this study the proportion of reproductive age women who have ever used long

Variables	Ever used cont.		COR (95% CI)	AOR (95% CI)
Ethnicity	Yes	No		
Somali	8(12.7)	92(27)	1	
Gurage	18(29)	70(18)	0.96(0.27-3.37)	
Amhara	23(37)	95(24)	3.83(1.00-14.67)	
Oromo	10(16)	103(31)	1.04(0.30-3.56)	
Others	4(6)	12(3.6)	3.43(0.93-12.65)	
Occupation				
House wife	31(12)	225(88)	1	1
Gov't employee	12(31)	27(69)	0.711(0.23-2.23)	
Private employee	4(13)	26(87)	2.23(0.85-6.17)	
Daily labourer	3(14)	18(86)	2.05(0.50-8.29)	
Others	13(27)	35(73)	0.72(0.20-2.59)	2.0(1.00-4.50)*
More child				
Within 2 years				
Yes	14	161	3.31(1.76-6.23)	
No	49	170	1	
How many more child u want				
4-Jan				
5-9	39	158	1	
>=9	4	30	0.22(0.07-0.64)*	
	4	73	0.41(0.09-1.75)	
How many more child u want in life				
1-4				
9-May				
14-Oct				
>=15	38	138	1	1
	10	76	0.14(0.01-1.06)	
Do you discuss	6	60	0.29(0.03-2.39)*	0.20(0.03-2.39)*
Yes	0	27	0.38(0.44-3.35)	
No				
	56	192	1.7(0.07-0.39)*	1.2(0.01-3.45)*
	7	139	1	1
Husband support				
LAPM				
Agree	29	72	1	
Neutral	7	19	0.45(0.25-0.82)	
Disagree	27	147	0.49(0.19-1.30)	0.09(0.01-0.57)*
LAMdangerous is				
Agree				
Neutral	18	121	2.76(1.43-5.30)	
Disagree	15	44	1.20(0.58-2.48)	1.23(0.98-4.56)*
	30	73	1	
Have TV				
Yes				1
No	55	252	1	1
	8	79	0.46(0.21-1.06)	0.53(0.02-1.63)*

*Implies statistical significance at P-value <0.05.

Table 4: Association of selected Sociodemographic variables with utilization of modern contraceptives among the respondents.

acting and permanent methods are determined to be 34 (8.8%). This figure was higher compared to a finding from EDHS 2011 indicating <1% proportion of reproductive age women utilizes long acting and permanent methods in Somali regional state [1]. This difference might be because of intensive awareness creation being given for the community about long acting methods over the last few years. In addition the study area may also have a significant contribution in this study as it was conducted in jigjiga town which is a capital of Somali regional state. However the result was low compared to study conducted in Tigray region Adigrat town and oromia region Goba town which indicates the proportion long acting and permanent methods utilization among reproductive age women to be 12% and 8.7% respectively [19,13]. In other ways utilization of permanent contraceptive method was identified to be 0.7% in this study which was said to be zero in other studies conducted in other parts of the country. In this study the three people (0.7%) using permanent contraceptive methods (female sterilization) was by the recommendation of the health professionals as a result of some reproductive complications they encountered. No participants are found who are using or ever used male sterilization from both qualitative and quantitative study which clearly shows low involvements of male in family planning utilization. This study is similar with study conducted in Tigray regional state Adigrat town indicating none of the participants are using male sterilization [19].

Finding from the Qualitative study also suggests that there was limited utilization of LAPMs in our community but with significant improvement in terms of peoples' attitude towards using it recently.

A 26 years old women participant said attitude towards using long acting and permanent contraceptive depends on different factor and different from women to women depending up on their age, religion, education and need for more children. She added I may personally interested to utilize long acting contraceptives because I know the advantage and disadvantage of using it. Reversely if you ask my mom her interest it will be negative even shame to talk about using contraceptives and sometimes considered as a big sin."

The unmet need for long acting and permanent method was found to be 31.5% in this study which is concurrent with the study conducted in Amhara regional state Debra Morkos town indicating the unmet need for long acting and permanent methods to be 32.2% [20]. However, it is lower as compared to study conducted in shashamane health facilities [21].

Regarding the knowledge of modern contraceptives almost all of the study subjects 328(83.4%) knows about modern contraceptives. Almost all 57(90.5%) of women who ever used modern contraceptives have the knowledge about modern contraception and only 6(9.5%) have used modern contraception without having knowledge about it. Majority of the study subjects knew about pills and the least known modern contraception by the study subject is male sterilization being known by only 8(0.02%) of the study subjects. This finding was similar with study conducted in Adigrat town indicating the awareness of modern contraceptives to be 87% and higher compared to EDHS 2011 [1,19]. This difference might be because of the nature of study and sample size difference.

In this study long acting and permanent contraceptive utilization is affected by whether there is discussion between couples. Women who discuss about long acting and permanent methods with their husband are high likely to use long acting contraceptives compared to those who are not. However lack of support from husband and fear of side effects are negatively influencing the utilization of long acting and permanent

contraceptives. This finding is in agreement with different studies conducted in different parts of Ethiopia [19-21]. Similar to the finding from this study Study conducted in public health facilities in Wolayita zone revealed that fear of side effect negatively affects long acting and permanent contraceptive utilization [22].

Finding from FGD is also suggests the relationship between misconception, social stigma and support from husband as well as male decision making power compared to females as the most determinant factors for long acting and permanent contraceptive utilization----A 32 years old FGD participants said many women may have positive attitude towards using long acting contraceptives but absence of support from husband makes you to stop or change your decision not to use long acting contraception. She added sometimes type of professionals and their preconceived skill also matters for intention of using long acting and permanent contraceptives. Because, some women are not comfortable to receive services by exposing their private organs to male who is not actually her husband specifically during IUCD insertion.

In this study intention to have more children affects the long acting and permanent contraceptive utilization. Women who need more children (>10 children) in their life are less likely to use long acting and permanent contraceptives compared to those women who want <10 children in their life time. AOR 0.2; 95% CI (0.03-2.39). This finding is concurrent with a study finding from a research conducted in southern part of Ethiopia which shows intention to use long acting and permanent methods highly depends up on intention of women to have more children in their life time and misperception about its reversibility [19].

It was also revealed in this study that not having TV was negatively associated with utilization of long acting and permanent contraceptive methods AOR 0.53; 95% CI (0.02-1.63). This might be related with behavioral change through health information dissemination and advertisements through live Medias. This study is not free of limitations. A potential limitation is the cross-sectional nature of our study and the resulting inability to infer causation. First, when reviewing the finding it is important to note that because of the sensitivity of the subject, the magnitude of sexual violence is under-reported. Thus, these results might be more accurately thought of as representing the minimum level of violence occurred.

Conclusion

A significant amount of the participants had misperception about long acting and permanent contraceptive. The overall prevalence of long acting and permanent contraceptive utilization was generally 34(8.8%) and Few of married women use female sterilization 3(0.007) and none use vasectomy. Education, intention to have more children and support from husband were significantly associated with the utilization of long acting and permanent methods. Information education communication should focus on alleviating factors which hinder from practicing of LAPMs.

Competing Interests

The authors declare that they have no competing of interests.

Authors' Contributions

BA involved in conceived the original idea, proposal writing, designed the study, got funding for the study, data collection, drafting of the manuscript and participated in all implementation stages of the study. He drafted and finalized the write up of the manuscript. LM involved in, proposal writing, got fund for the study, data collection

and participated in all stages of the study implantation. Both authors read and approved the final manuscript.

Acknowledgements

We would like to acknowledge Jigjiga University, for giving us this chance to undertake this research. We would also like to thank Somali regional health bureau for providing us necessary back ground information during this proposal preparation. Last but not least our appreciation goes to study participants for their time and genuine information.

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