

# Utilization of Long Acting And Permanent Contraceptive Method and Associated Factor Among Women of Reproductive Age in West Guji Zone, Southern Ethiopia, 2018.

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## Research

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# Abstract

**Background:** Increasing access to family planning helps to ensure the reproductive right, decrease unintended pregnancy, improve the health and nutritional status of children, reduction of maternal mortality, and enhance longer birth spacing . There is continually low utilization of long-acting and permanent contraceptive methods among low and middle-income countries. The aim of this study was to assess the Utilization of Long-Acting and permanent Contraceptive methods and associated factors among Women of Reproductive Age in the West Guji Zone.

**Methods:** Hospital-based cross-sectional design was conducted among women of reproductive age in the West Guji Zone. A systematic random sampling method was used to select study subjects for the survey with a sample size of 507. Descriptive analysis was utilized to summarize the data while logistic regression to assess factors influencing the utilization of Long-Acting and permanent Contraceptive methods use. Statistical significance was declared for variables outcomes of the P-value less than 0.05.

**Result:** Current utilization of Long-Acting And permanent Contraceptive methods at West Guji zone among the reproductive-aged group was 51.1%. More than the median of participants had negative attitude (72.4%) and poor knowledge (57%) towards the long-acting and permanent contraceptive methods. Educational status of women, the number of alive children, acceptance of utilization of Long-Acting and permanent Contraceptive methods, how treated by other staff, and waiting time during service delivery are significant determinant factors of long-acting and permanent family planning methods.

**Conclusion:** Educational status, number of alive children ( Parity) , acceptance of Long-Acting And permanent Contraceptive methods , how treated by other staff, and waiting time to get the service are statistically significant predictors of utilization of long-acting and permanent family planning methods. More than half of women had a negative attitude and poor knowledge of Long-Acting and permanent Contraceptive methods.

## Plain English Summary

Low utilization of long acting and permanent method has been continually reported in low and middle income countries. Unintended pregnancy and unsafe abortion might be related with unmet need of contraceptive.

The aim of this research was to assess level of utilization of long acting and permanent contraceptive method among reproductive aged women in West Guji Zone Ethiopia. The findings from this research will help different stake holder by providing the level of current utilization of long acting and permanent contraceptive methods and help them on planning how to strength the utilization by refereeing the associated factors.

507 Respondents were selected systematically: of which 51.1% of them utilize one of long acting and permanent contraceptive method currently.

In conclusion the utilization may be affected by Educational status of women, number of alive children, acceptance of Long-Acting and permanent Contraceptive methods by women, how treated by other staff during service delivery, and waiting time to get the service.

## Background

Family planning allow people to exercise their basic human right to freely decide when to have children, improve families nutrition outcome by limiting their number of children, promote their health and wellbeing, inhibit the distribution of sexually transmitted disease like HIV/AIDS, support women's and girl's education and empowerment and contribute to economic development of the country(1) .

Reproductive age women have been facing enormous challenges related to unmet need of contraceptive which might be because of lack of awareness to protect their health, unavailability of service, lack their decision making role on post ponding child bearing. These obstacles might abort their future promising opportunities and it vast from complications during pregnancy and birth because of unintended pregnancy to lower their education accomplishment which affects their future plan and lead to facing risk for their child (2). Africa (45%) records the highest proportion of unintended pregnancy next to Latin America (74%)(2). Although about half of unintended pregnancies in Latin America and in Africa (46%) results in subsequent unsafe abortion(3). In Ethiopia the unmet need of contraceptive is 15.1% and only 62.5% (median) demand for family planning was satisfied with modern methods(4). Large proportion of unintended pregnancy also revealed in Ethiopia urban and rural area i.e. 34% in Debre Markos (5), Arsi Negele Woreda 41.5% (6) and 23.5% in Debre Birhan(7), 36.4% Addis Ababa (8)and also 29% in sub-Saharan Africa (9). According to different studies unintended pregnancy might related with not using contraceptive (10), their knowledge regarding intrauterine device (8) and women autonomy on deciding to use contraceptive (5, 6). Unintended pregnancy could be caused by failure to use modern contraceptive methods.

According to WHO 2019 report, global 270 million adolescent have unmet need for contraceptive (11).Greater unmet need of contraceptive showed in sub-Saharan countries compared to the globe. A recent study showed that there is continually low utilization of long acting and permanent contraceptive method among low and middle income countries (10).

Increasing access to family planning helps to ensure the reproductive right, decrease unintended pregnancy, improve health and nutritional status of children, reduction of maternal mortality and enhance longer birth spacing(4) and also decrease the need for unsafe abortion (12).Long acting and permanent contraceptive method have promising effect on ensuring long time protection without need of any further responsibility by the user once applied.

Thus there is a need to assess Utilization of Long Acting And permanent Contraceptive Method and associated factor among Women of Reproductive Age in West Guji Zone.

The findings obtained from this research can be useful in many ways. Governmental and non-governmental organizations will take intervention measures and set appropriate plans to improve the existing utilization of long acting and permanent contraceptives by using the identified factors which influences the utilization of LAPMs. And also health managers at a higher level and Health professionals in particular to understand the extent of the utilization level of LAPMs. The findings will also enhance the capacity of planning and decision making to look for possible solutions to solve the problem in collaboration with concerned stake holders so as to provide future appropriate LAPMs services in the Woreda as well as in the west Guji Zone.

## **Objectives**

### **General Objective**

- To assess Utilization of Long Acting and permanent Contraceptive methods and associated factor among Women of Reproductive Age in west Guji Zone, 2018.

### **Specific objectives**

- To determine levels of utilization of long acting and permanent family planning Methods.
- To identify factors associated with utilization of long acting and permanent family Planning methods

## **Method**

### **Study area**

The study was conducted in governmental health institutions which are found in Oromia west Guji zone. In west Guji zone there are three hospitals in which two of them were functional (Bule Hora General Hospital & Kercha primary hospital)& one is not (Melka Soda Hospital) at the time of study. There were 44 health centers in the zone, of those 3 were nonfunctional.

### **Study period**

The study was conducted from april15 - May 15, 2018.

### **Study design**

Hospital based cross sectional design was employed.

### **Inclusion and exclusion criteria**

#### **Inclusion criteria**

- All women of reproductive age come to the selected health facilities to get Family planning service.

- Women whose age from 15–49.

## **Exclusion criteria**

- Women who were not willing to answer.
- Women who were not come to get family planning service

## **Variables**

### **Dependent variable**

- Utilization of long acting and permanent family planning methods

### **Independent variable**

- Age
- Education
- Access to service
- Parity
- Husband opinion
- Satisfaction with information given
- Method accepted
- Knowledge and
- Attitude towards LAPMS of method

## **Population**

### **Source population**

All women come to health institution.

### **Study population**

All women come to get family planning service in selected health institution.

## **Sample size determination and sampling procedure**

### **Sample size quantitative data**

A single population proportion formula was used to determine the prevalence of LAPMs by taking proportion of long acting and permanent contraceptive methods in Mekele town, Tigray region, Ethiopia ( $p = 12.3\%$ ) (13). Other inputs considered was 95% confidence level, margin of error of 3% and 10% non-response rate; giving a final sample size of 507.

### **Sampling technique/procedures**

West Guji zone health facilities were divided in to two (the hospitals & the health centers). One hospital & 21 health centers was selected randomly.

## Data collection instruments

A structured and pre tested interview based questionnaire with open ended and closed ended questions was used to collect the data.

## Data Processing and Analysis

Data was entered cleaned, coded and analyzed using SPSS versions 20. Both descriptive and analytical statistical procedures were utilized. Logistic regression was employed to assessment factors influencing the utilization of LAPMs use. Statistical significance was declared for variables outcomes of the P-value less than 0.05.

## Quality control

The principal investigator was given introduction for the data collectors and supervised all activities for the collected data completeness and clarity if there was any problem; it was addressed on the next day.

## Operational definitions

**Very Good Knowledge** - those who scored 80 % and above distinct features of LAPMs from knowledge questions.

**Good knowledge** - those who scored 60 up to 79% distinct features of LAPMs from knowledge questions.

**Poor knowledge** - those who scored less than 60% features of any of the LAPMs from knowledge questions

**Positive Attitude** - those who scores above mean to the correct answers from attitude measuring LAPMs questions.

**Negative Attitude** - those who score mean and below mean to the correct answers from attitude measuring LAPMs questions.

## Results

A total of 507 reproductive age women were interviewed from 21 health centers and 1 hospital that found in west Guji zone with 100% response rate. Socio-demographic characteristics of participants summarized on Table 1.

Table 1  
Socio-demographic characteristics of respondent

<b>VARIABLE</b>	<b>FREQUENCY(NUMBER)</b>	<b>PERCENT</b>
<b>AGE OF THE WOMEN</b>		
15–24	182	35.9%
25–34	283	55.8%
35–49	42	8.3%
<b>RELIGION</b>		
Orthodox	142	28%
Muslim	66	13%
Protestant	294	58%
Catholic	5	1%
<b>EDUCATIONAL LEVEL OF WOMEN</b>		
Informal	47	9.3%
Grade 1–8	131	25.8%
Grade 9–12	143	28.2%
College and university	40	7.9%
Illiterate	146	28.8%
<b>MARTIAL STATUS</b>		
Married	462	91.1%
Single	24	4.7%
Divorced	7	1.4%
Widowed	8	1.6%
Separated	6	1.2%
<b>OCCUPATION</b>		
Government employee	189	37.3%
NGO employee	2	0.4%
Private business(merchant)	72	14.2%
House wife	162	32.0%
Student	40	7.9%

VARIABLE	FREQUENCY(NUMBER)	PERCENT
Daily laborer	32	6.3%
Farmer	10	2%
<b>MONTHLY INCOME</b>		
< 499	84	16.6%
500–1499	192	37.9%
1500–2499	111	21.9%
2500–3499	84	16.6%
3500–4499	14	2.8%
> 4500	22	4.3%

Obstetric characteristics of the respondents in west Guji zone

Majority of the respondents 404(79.7%) were found to have married between the age of 14–24 followed by seventy nine (15.6%) from 25–35 with mean± (SD), age of participants was 21± (3.69) years old. At their first birth 374(73.8%) of the respondents were 14–24 years old with mean ± SD of age 22 ± (3.65) years old and 52(10.3%) of the participants have never given birth yet. Table 2 summarized obstetric history of the participants.

Table 2  
Obstetric characteristics of the respondents in  
west Guji zone

VARIABLES	FREQUENCY(NUMBER)	PERCENT
<b>AGE AT TIME OF MARRIAGE</b>		
14–24	404	79.7%
25–35	79	15.6%
Yet not married	25	4.7%
<b>AGE AT TIME OF FIRST BIRTH</b>		
14–24	374	73.8%
25–35	81	16%
Yet not give birth	52	10.3%
<b>GRAVIDITY (NUMBER OF PREGNANCY)</b>		
1	108	21.3%
2–5	262	51.7%
6 and above	87	17.2%
No pregnancy	50	9.9%
<b>PARITY (NO OF BIRTH)</b>		
1–2	160	31.6%
3 and above	295	58.2%
No children	52	10.3%
<b>FUTURE DESIRE OF MORE BABIES</b>		
1–2	33	6.5%
3–4	152	30%
5–6	125	24.7%
> 6	93	18.3%

Knowledge of the respondent on long acting and permanent method

Three hundred thirty seven (66.5%) of women know at least one method of modern family planning method. Injectable followed by implant is the most known method and male sterilization(vasectomy) is the least known among the modern family planning which was 323(63.7%), 265(52.3%),and 48(9.5%) respectively. Two hundred eighty (55.2%) of women know at least one long acting and permanent family planning method among which implants 277(54.6%) are the most known and vasectomy45(8.9%) is the least known. Table 3 summarized participant’s knowledge on the type of modern contraceptive and Long acting and permanent contraceptive method.

Table 3  
Knowledge of the respondent on long acting and permanent method in west Guji zone

Do you know any modern family planning Methods?	Frequency	Percent
Yes	337	66.5%
Pill as modern family planning	197	38.9%
IUCD as modern family planning	132	26%
Injectable as modern family planning	323	63.7%
Tubal ligation as modern family planning	58	11.4%
Vasectomy as modern family planning	48	9.5%
Implant as modern family planning	265	52.3%
Lactation as modern family planning	52	10.3%
Condom as modern family planning	133	26.2%
Do you know about LAPMS contraceptive methods	280	55.2%
IUCD as long acting & permanent method	126	24.9%
Implant as long acting and permanent method	277	54.6%
Tubal ligation as long acting and permanent method	59	11.6%
Vasectomy as long acting and permanent method	45	8.9%

Most of the respondents (43%) were believe that long acting and permanent contraceptive method have used for child spacing and only seventy eight (15.4%) of the respondent believe that it prevent possible maternal and child death and ill health. The other use of long acting and permanent method preventing unwanted pregnancy and limiting family size are only accepted by 33.1% and 33.1% respectively Concerning the level of knowledge one hundred forty seven (29%) have good knowledge on long acting and permanent contraceptive while seventy one (14%) and two hundred eighty nine (57%) have very good knowledge and poor knowledge respectively. Table 4 summarized knowledge of respondents on LAPMs.

Table 4  
Knowledge of the respondent on LAPMs in west Guji zone

	Yes	No	Don't know
Does IUCD can prevent pregnancies for more than 10 year	215(42.4%)	150(29.6%)	142(28%)
Do you think IUCD appropriate for female at high risk of getting STI	128(25.2%)	223(44%)	156(30.8%)
IUCD don't interference with sexual Intercourse or desire?	190(37.5%)	166(32.7%)	151(28.9%)
Do you think IUCD is immediately reversible?(become pregnant quickly when removed)	196(38.7%)	156(30.8%)	155(30.6%)
IUCD Does not can cause cancer?	212(41.8%)	142(28%)	153(30.2%)
Do you think Implant can prevent Pregnancies for 3–5 years?	276(54.4%)	80(15.8%)	151(29.8%)
Do Implants require minor surgical Procedure during insertion and removal?	265(52.3%)	90(17.8%)	152(30.0%)
Do you think Implants is immediately Reversible?	242(47.7%)	101(19.9%)	164(32.3%)
Does Female sterilization need an operation to be performed?	215(42.4%)	117(23.1%)	175(34.5%)
LAPMs do not cause ectopic pregnancy?	201(39.6%)	123(24.3%)	183(36.1%)

#### Altitude of the respondent toward LAPMS

Three hundred eighty one (75.1%) of the respondent accept long acting and permanent family planning methods. 276(54.4%) were supported by their husband. Concerning the level of attitudes, Three hundred thirty seven (72.4%) of the respondent have poor altitude toward long acting and permanent family planning methods and one hundred forty (27.6%) of the respondent have good altitude. Altitude of respondents on the utilization of LAPMs summarized on Table 5.

Table 5  
Attitude of respondents on utilization of LAPMs in west Guji zone, 2018G.C

	Strongly disagree	disagree	Not sure	Agree	Strongly agree
The insertion and removal of implant is highly painful	87(17.2%)	100(19.7%)	131(25.8%)	164(32.3)	25(4.9%)
Insertion of IUCD causes loss of pregnancy	16(3.2%)	106(20.9%)	167(32.9%)	184(36.3%)	34(6.7%)
Using IUCD prevents from doing heavy work	40(7.9%)	130(25.6%)	165(32.5%)	134(26.4%)	38(7.5%)
Operation for female sterilization is dangerous	18(3.6%)	110(21.7%)	203(40%)	142(28%)	34(6.7%)
IUCD and implant cause infertility	42(8.3%)	154(30.4%)	186(36.7%)	94(18.5%)	31(6.1%)
The IUCD will get stuck in my uterus	36(7.1%)	147(29%)	179(35.3%)	126(24.9%)	19(3.7%)
Nulliparous women shouldn't have used an IUCD	47(9.3%)	91(17.9%)	172(33.9%)	163(32.1%)	34(6.7%)
IUCD will not fit in my uterus	43(8.5%)	153(30.2%)	191(37.7%)	75(14.8%)	45(8.9%)

#### Practice of long acting and permanent methods

Utilization of long acting and permanent contraceptive method summarized on Table 6.

Table 6  
Practice of respondents on long acting and permanent contraceptive methods of west Guji Zone

		Frequency	percent
Have you ever use LAPMs	yes	217	42.8%
	No	290	57.2%
Reason for stop using LAPMs			
Fear of side effect		109	21.5%
Partner disapprove		111	21.9%
Medical problem		20	3.9%
Shift to other method		34	6.7%
I want a child		25	4.9%
Religious opposition		22	4.3%
Don't know		43	8.5%
Have you ever use implant?		205	40.4%
Have you ever use IUCD?		12	2.4%
Have you ever use vasectomy?		0	0%
Have you ever use tubal ligation?		0	0%
Are you currently using LAPMs	Yes	259	51.1%
	No	248	48.9%
Implant		229	45.2%
IUCD		25	4.9%
Tubal ligation		5	1%
vasectomy		0	0%
Reason for currently using long acting and permanent contraceptive method			
Have enough child		59	11.6%
Pressure from my husband		37	7.3%
Want to space		123	24.3%
Advice from health professional		144	28.4%
Reason for not practicing LAPMS			
Fear of side effect		113	22.3%
Service unavailability		9	1.8%
Partner disapprove		147	29%
Medical problem		32	6.3%
Shift to other method		40	7.9%
Lack of knowledge		79	15.6%

One hundred seventy nine (35.3%) of the respondent were get the service from health center which is followed by sixty four (12.6%) were get from hospital. The rest were get the service from NGO clinic four (0.8%) and health post twelve (2.4%).

Perceived service quality of respondents on long acting and permanent contraceptive methods  
Participant's response on service quality summarized on Table 7.

Table 7

perceived service quality of respondents on long acting and permanent contraceptive methods of West Guji zone on 2018.

		Frequency	percent
During your visit to health facility how were you treated by the other staff?	Very well	236	46.5%
	well	110	21.7%
	Not very well/poorly	159	31.4%
	There was no other staff	2	0.4%
How long did you wait to get service at the facility?	< 15minute	14	2.8%
	16-30minute	129	25.4%
	31-45minute	122	24.1%
	46-60minute	67	13.2%
	61-90minute	66	13%
	91-120minute	66	13%
	> 120minute	38	7.5%
	Don't know	5	1%
How do you feel about your waiting time?	No waiting time	73	14.4%
	Reasonable/short time	218	43%
	Too long	209	41.2%
	Don't know	7	1.4%
Did the provider ask if you were having a problem with the method that you used?	Yes	460	90.7%
	No	47	9.3%
Have you had a problem with your method?, that you wanted to discuss with your provider	Yes	421	83%
	No	86	17%
Did the provider try to understand the nature of your problem?	Yes	332	65.5%
	No	175	48.3%
Did the provider suggest what you should do (action you should take) to resolve the problem?	Yes	302	59.6%
	No	205	40.2%
Were you satisfied with the advice or treatment that you received for your problem?	Yes	443	87.4%
	No	64	12.6%

#### **Logistic regression analysis of utilization of LAPMs among women of reproductive age group in west Guji zone, 2018.**

Variable considered for multiple logistic regression were family size, educational level of women, parity, accept long acting and permanent contraceptive method, ever use LAPM, husband opinion, how treated by other staff, service satisfaction, reasonable waiting time and level of knowledge.

During multiple logistic regression educational level of women, parity, accept LAPM, how treated by other staff during service and waiting time to get the service were significantly associated with current utilization of long acting and permanent contraceptive method. Result of binary and multiple logistic regressions presented on Table 8.

Table 8

logistic regression analysis of utilization of LAPMs among women of reproductive age group in west Guji zone, 2018.

Variables	utilization of LAPM		COR(95% CI)	AOR(95% CI)
	Yes	No		
<b>Family size</b>				
1-3	210	225	1	1
≥ 4	49	23	0.438(0.258-0.744)	1.54(0.21-11.34)
<b>Educational level of women</b>				
Informal	21	26	1	
Grade 1-8	70	61	0.704(0.36-1.375)	0.78(0.172-3.53)
Grade 9-12	115	28	0.197(0.097-0.399)	0.116(0.023-0.593)*
College or university	30	10	0.269(0.12-0.674)	0.446(0.055-3.644)
<b>Parity</b>				
1-2	45	115	1	1
≥ 3	192	103	0.210(0.138-0.319)	0.082(0.026-0.253)*
<b>Accept LAPM</b>				
Yes	239	142	1	1
No	20	106	0.112(0.067-0.189)	0.029(0.005-0.162)*
<b>Husband opinion</b>				
Support	164	112	1	1
Oppose	56	90	0.425(0.28-0.64)	0.74(0.179-3.1)
<b>How treated by other staff</b>				
Well	234	112	1	1
Not very well	25	136	0.088(0.054-0.143)	0.06(0.017-0.213)*
<b>Reasonable waiting time</b>				
No Waiting time	42	31	0.143(0.079-0.257)	0.098(0.026-0.376)*
Reasonable / short	182	36	0.038(0.023-0.064)	0.022(0.005-0.087)*
Too long	35	181	1	1
<b>Service satisfaction</b>				
Yes	222	187	0.511(0.325-0.803)	1.1(0.28-4)
No	37	61	1	1
<b>Ever use LAPM</b>				
Yes	130	87	0.536(0.375-0.766)	0.94(0.33-2.68)
No	129	161	1	
<b>Level of knowledge</b>				
Poor knowledge	115	174	1	1
Good knowledge	41	30	0.484(0.286-0.819)	1.04(0.21-5.2)
Very good knowledge	103	44	0.282(0.185-0.432)	0.5(0.166-1.58)

## Discussion

The finding of these study indicate that educational status women, number of alive children (parity) ,accept utilization of LAPMs, how treated by other staff during service delivery and waiting time for service are significant determinant factor of long acting and permanent family planning method.

In this study the overall the current use of LAMP at west Guji zone was 51.1%. This is very high when compared to research done in Bombe district, Debre Berhan District, Dendi district and Janamora District which were 16.3%, 27.3%, 17.6% and 12.9% respectively (14-17) and which is less than the study done in Illu Aba Bor Zone and Ambo town that is 62.2% and 65.6% respectively (18, 19). This difference could be in study setting, time of the study, the deployments of health extension worker which strengthen the awareness of LAPMs at community level and the government attention towards these methods increases the utilization.

Another factor affecting utilization of long acting and permanent family planning method is educational level of women. Women who join high school (Grade 9–12) 0.116 time AOR 0.116(0.023–0.593) more likely use long acting and permanent contraceptive method than women with informal education. This is comparable with the study done at Bombe district women who have educational level primary (1–8) / above AOR 3.7 95% CI:(1.7–7.9) more likely to use LAPMs than women had no formal education (14).

In this study 337 (65.5%) of women know at least one method of modern family planning method which is very low when compared to the study done at Debre Berhan Town which is (459) 92% of the respondents were able to mention at least one method of modern family planning method (20). The least known method as LAPMs is vasectomy (8.9%) and implant were very known method under LAPMs (54.6%) which is followed by IUCD 24.9% and tubal ligation (11.6%). These is very low when compared to the study done at Gesuba town in which vasectomy is least known (16.6%) and Implant is most known which is followed by IUCD and tubal ligation which is 69.3%, 47.9% and 18.8% respectively(21).

In this study women who didn't accept utilization of long acting and permanent methods 97.1 % less likely to use LAPMS AOR = 0.029 95%CI (0.005–0.162) than women who accept.

women with more than three live children 91.8% less likely to use LAPMs than those who had 1–2 live children with AOR = 0.082 95%CI (0.026–0.253) which is contradicted when compared to the study done at Debre Berhan District, women with 3 and above and 1 child is 2 times more likely to use LAPMs than who had no children with AOR = 2.41(0.14–41.43 and AOR = 2.74 95% CI: (0.22–34.62) respectively (15).

Regarding quality of service, women who were treated not very well with other staff 94% less likely use long acting permanent contraceptive method than those treated very well with AOR = 0.06 95% CI (0.017–0.213). Women who believes there were no waiting time and reasonable waiting time for getting the service 0.098 and 0.022 time use long acting and permanent contraceptive method than women who believed waiting time was too long with AOR = 0.098 95% CI (0.026–0.376) and AOR = 0.022 95% CI (0.005–0.087).

Regarding the altitude of participants towards long acting and permanent contraceptive method, our finding was higher than finding from Debre Berhan District in which 52.5% had negative altitude.

## Conclusion

In conclusion above median of participants has used long acting and permanent contraceptive method. Educational status, number of alive children ( Parity), acceptance of LAPMs, how treated by other staff and waiting time to get the service are statistically significant predictors of utilization of long acting and permanent family planning methods. More than half of women had negative altitude and poor knowledge on LAPMS.

## Recommendation

- Responsible bodies shall work together to improve women knowledge and altitude towards long acting and permanent family planning method.
- Hospitals shall improve their service delivery in order to increase the utilization of long acting and permanent family planning methods.

## **Abbreviations**

**AOR**-Adjusted Odds Ratio; **COR**-Crudes Odds Ratio; **FGD**-Focused Group Discussion; **IUCD**-Intrauterine Contraceptive Device; **LAPM**-Long Acting and Permanent Method; **SD**-Standard Deviation; **WHO**-World Health Organization.

## **Declarations**

## **Acknowledgement**

We would like thank Bule Hora University for supporting this study.

## **Ethics approval and consent to participate**

Ethical clearance was obtained from Bule Hora University, Research and publication directorate. Verbal consent was obtained from individual participants. All the participant in the questionnaire survey was told about their participation could be on a voluntary basis and their information will be kept confidential and the name of the participants was not taken.

## **Consent for publication**

Not applicable.

## **Availability of data and materials**

Data will be available upon request from the correspondence authors.

## **Competing interests**

The authors declare that they have no competing interests.

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## Authors' contributions

EDZ conceptualized the study. EDZ, DGA, RG and TTW developed the protocol, collect and coordinated data collection, and carried out the statistical analysis and drafted the manuscript. All authors read and approved the final manuscript.

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