

Utilization of Long Acting and Permanent Contraceptive Methods and Associated Factors among Married Women of Reproductive Age Group in Goba Town, Southeast Ethiopia

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ABSTRACT

Background: Ethiopia is the second most populous country in Africa. The total fertility rate of Ethiopia is 4.8 births per women with population growth rate of 2.13% per year and contraception prevalence rate of 29% while the unmet need for family planning is 25% for spacing 16% and 9% for limiting. Almost all of these users are using modern contraceptive method. The most widely used are injectable (21%) followed by implant (3%) and intrauterine contraceptive device (2%) and female sterilization (<1%) are the least used.

Objective: The aim of this study was to assess the utilization of long-acting and permanent family planning methods and associated factors among married women of reproductive age group in Goba town, Bale zone, Oromia region, Ethiopia 2017.

Methods: A community based cross sectional study was conducted. Data collection was performed using pre tested structured questionnaire. The households were chosen at regular interval using systematic sampling method. Data was analysed by SPSS version 22 and association of dependent and predictors using variable was declared at 95% CI on $P < 0.05$.

Result: A total of 354 women during collection period were interviewed. The response rate was 98.9%. The overall prevalence of LAPMs contraceptives was 18.9%; the least used methods were female and male sterilization. Sixty three point six percent of women have knowledge about LAPMs and more than half of respondents (54.5%) have an intention to use LAPMs. The major source of modern contraceptive was governmental health facility (72.5%) and knowledge about LAPMs, support using LAPMs, partner attitude towards LAPMs, intention to use LAPMs, discussion with partner about LAPMs and knowledge about LAPMs have association with utilization of LAPMs.

Conclusion: Utilization of LAPMs in Goba town was low. More than half of the respondents know about LAPMs. The majority of respondent support use of LAPMs. Therefore, Goba hospital should increase accessibility of contraceptive especially. Media should increase provision of accurate and continues information on LAPMs.

Keywords: Long Acting and Permanent Contraceptives, Utilization, Married Women, Reproductive Age Women

BACKGROUND

In 2002 the world population projection is just over nine billion. Because of poor family planning services and poor attitudes in many parts of the world earth may be forced to accommodate many more than this number [1]. Developing countries have made much progression expanding availability and use of FP service. Thus the need for effective contraception in general and long acting and permanent methods (LAPMs) in particular is a large and growing; because the largest cohorts in human history are entering their

reproductive years. More than half of a billion people will use contraceptive in developing countries by 2015, an increase of 200 million over level of use in 2000 [2].

Contraceptive prevalence and fertility rates vary substantially among developing countries. In some countries of Asia and Latin America at least three fourth of married women use contraceptive methods. In contrast in sub-Saharan African countries, less than 80% of married women use contraceptive [3,4]. Fertility rate 2.3 children per women in Vietnam and 7.2 in Niger [5]. The rate

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of use of long-term methods was found to be almost negligible; it ranged from 0.4% to 5.9% and exceeded 5% only in Namibia, Kenya and Malawi. Moreover, percentage-point increases in the use of long-term methods had been small to negligible and five countries (Cameroon, Kenya, Mozambique, Rwanda and Senegal) had experienced a reversal trend in use [6].

A number of factors could contribute to lack of availability and access to LAPMs; these factors include opposition to use, lack of knowledge, method related reason and fertility related reason could act as barriers to LAPMs use [7-11]. The accessibility of LAPMs inhibited by higher cost to individual or the ministry of health, lack of trained providers and wide availability of short acting method in rural areas where most people live and distant to clinics and medical barriers [12].

One of targets the ministry of health (MOH) with respect to improving maternal and child health, is to increase the contraceptive prevalence rate to 66% by 2015. In order to achieve this target, the ministry has given priority to provision of safe maternal hood services such as FP in the community [4].

Ethiopia is one of the countries with the highest maternal mortality. The major causes of mortality are unsafe abortion, bleeding, infection, hypertensive diseases during pregnancy and obstructed labor [3]. Total fertility in Ethiopia is 4.8 births per women. In rural area women bear an average of 5.5 children in urban area 2.6 children nearly half of their rural counterparts and population growth rate is 2.13 which makes Ethiopia the second most populous in Africa [4].

Since the prevalence of LAPMs is very low in Goba town before decades, we are going to reassess prevalence, knowledge, attitude and factor associated with use of the methods among married women of reproductive age group in the town [13-22].

METHODS

Study design, area and period

A community based cross-sectional study was conducted from January to February 2017 in Goba town. Goba town is found in Bale zone, Oromia region south east Ethiopia which is 455 km far from Addis Ababa. The town is divided in to east and west with total population of 50,650. About 52.1% population are female 47.9% of population are male. The town has one hospital and five private clinics.

Sample size determination

The sample size was determined by using single population for finite population with 95% confidence interval, degree of accuracy (d) of 5% and the prevalence (p) was calculated by using similar study done in Goba town and calculated from knowledge of LAPMs which was 66.7%(13), 5% non-response rate and the final sample size calculated to be 358.

Sampling technique

The household was chosen at regular interval using systematic sampling technique sampling frame which is 6273 and sample size is 358. The sampling fraction will be $6273/358=17$. The first household will be selected randomly out of 17, it is 10 and the other household will select as followed $10+17, 10+34, 10+51, 10+68, \dots$ until 358 women will be selected.

Data collection tools

The data collection was performed using structured questioners for interview. The interviewer administer questioner have socio

demographic characteristics, knowledge, attitude and practice of LAPMs of family planning questions. The data collectors (student) were collected the data from women of reproductive age group in Goba town. The questionnaire was translated from English to local language (Afan Oromo) by independent translators.

Data quality control

Questionnaires were translated from English to local language (Afan Oromo) by independent translators. Before data collection data collectors were discuss on how to collect data, and then it was collected properly. After each data collection day, the completeness of the data was reviewed.

Data analysis

SPSS 22 was used for data entry, editing and analysis. Frequencies and percentage of different variables was computed for description as appropriate. And association of dependent and independent variable was assessed by cross tabulating (Chi-square test). Result was presented by numbers, percent and tables.

Ethical consideration

The data collection was carried out after approval of the research proposal by the Ethical clearance of MWU College of medicine and health science. A verbal informed consent was obtained from individual participants before data collection and all participants in the study were asked that participation is on voluntary basis.

RESULTS

Socio-demographic characteristics

In this study a total of 358 married women of reproductive age group were included with response rate 98.9% (354). Majority of the respondents 91(25.7) were in the age group of 25-29. The ethnicity of the respondents were Oromo 188(53.1%) followed by Amhara 144(40.7%). The religion of most respondents was Orthodox 228(64.4%) followed by Muslim 89 (25.1). Thirty seven (10.5%) of respondents had no education and 96 (27.1%) respondents had educational level of grade 9-12. Majority of study subjects were housewife 247(69.8%), followed by governmental employee 42(11.9%) and their partners were governmental employee 134(37.9%) next to this privet employee account 93(17.8%). Two hundred forty eight (70.1%) respondents have television (Table 1).

Reproductive characteristics

Among study subjects, 79(22.3%) of respondents want to give birth within two years; while 275(77.7%) do not need have child within this year, 130(47.3%) for limiting, 98(35.6%) for spacing and 47(17.1%) have other reason. From the total study subjects most of the respondents 174(49.2%) have 3-4 children in their life, 92(26%) 1-2 and 85(24%) want to have 5 and more children in their life. Majority of our respondents 249(78.8%) have discussed about family planning methods with their partner. Also majority 276(78%) of giving decision on number of children to have is by both husband (Table 2).

Knowledge towards modern contraceptives

Three hundred twenty (90.4%) of participant know about modern contraceptives of this pills 315(89%), injectable 310(87.6%), implant 223(62.99%), IUCD 176(49.7%), female sterilization 101(28.5%), male sterilization 63(17.8%) and condom 236(66.6%). Health professionals were identified as the most commonly mentioned source of information for the first time on methods

Table 1: Socio-demographic characteristics of study participant.

Variable	Frequency	Percent
Age in years		
15-24	88	24.6
25-29	91	25.4
30-39	117	32.7
40-49	62	17.3
Educational level		
Can't read and write	17	4.8
Can read and write	26	7.3
Grade1-4	14	4
Grade5-8	79	7.3
Grade9-12	107	30.2
Grade12 and above	111	31.4
Occupation		
House wife	247	69.8
Governmental employee	42	11.9
Private employee	15	4.2
Daily laborer	12	3.4
Farmer	8	2.3
Students	30	8.4
Occupational status of partners		
Governmental employee	134	37.9
Private employee	63	17.8
Daily laborer	48	13.6
Farmer	86	24.3
Other	23	6.5
Monthly income		
<500	61	17.2
>=500	293	82.8
Do you have TV		
Yes	248	70.1
No	106	29.9
Do you have Radio		
Yes	317	89.5
No	37	10.5

of modern contraceptive which account 182 (56.2%). From the total study subjects 225(63.6%) respondents were know about LAPMs. Of this, 120(53.1%) had message on LAPMs through television (81%), in the last 12 months. The most known LAPMs of contraceptive were Implant 224(99.5%) and the least known was male sterilization 62(27.5%). The majority of the respondents 223(99.1%) knows that LAPMs can prevent unwanted pregnancy. One hundred seventy-three (76.9%) women were know about IUCD prevent pregnancy for more than five years and 111(49.3%) were know that it can be reversed immediately. Two hundred fifty (95.6%) and 153(68%) women know that implant is long term and require minor surgical procedure respectively. Only 39(17.3%) of respondents knows that implant has no effect on breast feeding (Table 3).

Attitude towards LAPMs

One hundred seventy six (49.7%) of the respondents were discussed about the LAPMs with their partner or friends. Of the total study population 261(73.7%) support using LAPMs and 193(54.5%) have intention to use LAPMs. One hundred sixty eight

(47.5%) of participants partner's support using LAPMs and the most responsible body to practice contraception were both wife and husband 192 (54.2%) (Table 4).

Practice of modern contraceptives

Currently 215(60.7%) of the study population are using modern contraceptives. Injectable 98(45.6%) is commonly used method, followed by implant 47(21.9) (Figure 1). Need to be pregnant is the most common reason of not using contraceptive, 43(30.7%). Most commonly mentioned source family planning methods for current using is governmental hospital 130(62.8%) (Table 5).

Factors associated with utilization of LAPMs

Age, educational level, number of alive children, discussion with partner about FP, knowledge about LAPMs, support using LAPMs, partners attitude toward using LAPMs, intention to use LAPMs, discussion about LAPMs with partners and knowledge about LAPMs have statistically significant association with utilization of LAPMs with chi-square test and p-value <0.05 (Table 6).

Table 2: Reproductive characteristics of study participants.

RH Characteristics	Category	Frequency	Percentage
Ever gave birth	Yes	285	80.5
	No	69	19.5
Age at first birth	15-29	99	34.6
	20-24	129	45.1
	25-29	56	19.6
	30-34	2	0.7
Number of birth given	One/two	123	43.2
	Three/four	93	32.6
	Five/more	69	24.3
Number of alive children	Zero		
	One/two	133	46.7
	Three/four	97	34
	Five/more	55	19.3
More children wanted	Zero	142	49.8
	One/two	120	42.1
	Three/four	21	7.4
	Five / more	2	0.7
Intention to have children within two years	Yes	79	22.3
	No	275	77.7
Reason for not to have child within two years	To space	98	35.6
	To limit	130	47.3
	Other	47	17.1
Total children wanted	Zero	2	0.6
	One/two	92	26
	Three/four	174	49.2
	Five / more	86	24.2
Discussion with partner on FP	Yes	279	78.8
	No	75	21.2
Decision making on No of children to have	Husband	7	2
	Wife	22	6.2
	Both	276	78
	God	49	13.8

Table 3: Knowledge towards modern contraceptive.

Characteristics	Category	Frequency	Percent
Type of modern contraceptive known	Pills	315	89
	Injectable	310	87.6
	Implant	224	63.5
	IUD	176	49.9
	TL	100	28.2
	Vasectomy	62	17.5
	Condom	235	66.4
	Neighbors/friends/relatives	82	25.3
Source of information on modern contraceptive	Health professionals	182	56.2
	Mass media	28	8.6
	Husband	19	5.9
	Other	13	4
Know about LAPMs	Yes	225	63.6
	No	129	36.4
Ever exposure to LAPMs within last 12 months	Yes	120	53.3
	No	105	46.7

Type of media you Exposed	Television	98	81
	Radio	12	9.9
	Print media	10	9.1
Type of LAPMs you know	Implant	224	99.5
	IUD	176	78.2
	TL	100	28.2
General use of LAPMs	Vasectomy	62	27.5
	Helps for prevention of unwanted pregnancy	223	99.1
	Prevention of possible maternal and child death	88	39.1
Knowledge about IUD	Limiting of family size	119	52.9
	Child spacing	195	86.7
	It is very effective	86	38.2
	It is long term	173	76.9
	No effect on BF	44	19.6
	Not good for female at high risk of sexual transmitted infections	20	8.9
	No interference with sexual intercourse	54	24
Knowledge about implant	Immediately reversible	111	49.3
	Has minimal side affect others	52	23.1
	It is very effective	99	44
	It is long term	215	95.6
	No effect on BF	39	17.3
	Insertion and removal require minor surgery	153	68
	No interference with daily Activity	105	46.7
Knowledge about vasectomy	Immediately reversible	139	62.1
	Has minimal SE	57	25.3
	It is very effective after 3 months of operation	9	4
	It is permanent	62	27.6
	Requires safe and simple procedure	37	16.4
	Don't need repeated clinic visit	44	19.6
	No effect on sexual performance and sensation	20	8.9
Knowledge about TL	No known long term side effect	17	7.6
	Requires counseling and informed consent	18	8
	It is very effective	30	13.3
	It is permanent	96	42.7
	Requires safe and simple procedure	46	20.4
	Don't need repeated clinic visit	65	28.9
	No effect on sexual performance and sensation	22	9.8
Who is responsible in using LAPMs	No known long term SE	20	8.9
	Requires counseling and informed consent	20	8.9
	Wife	158	44.6
Partner attitude towards using LAPMs	Husband	4	1.1
	Both	192	54.2
	Support	168	47.5
Support using LAPMs	Against	61	17.2
	Neutral	125	35.3
Discussion about LAMPs with partner	yes	193	54.5
	No	161	45.5

Table 4: Attitudes towards LAPMs of the study participants.

Attitude factors(characteristics)	Category	Frequency	Percentage
Discussion about LAMPs with partner	Yes	176	49.7
	No	178	50.3
Support using LAPMs	Yes	261	73.7
	No	93	26.3
Partner attitude towards using LAPMs	Support	168	47.5
	Against	61	17.2
	Neutral	125	35.3
Have an intention to use LAPMs	yes	193	54.5
	No	161	45.5
Who is responsible in using LAPMs	Wife	158	44.6
	Husband	4	1.1
	Both	192	54.2

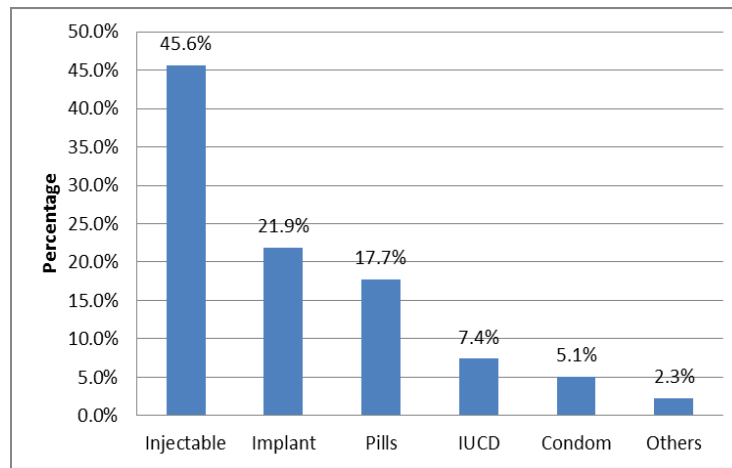


Figure 1: Current use of contraceptive among mothers.

Table 5: Practice of modern contraceptives and intention to use LAPMs.

Variables	Frequency	Percent
Ever used a modern contraceptive	Yes	273
	No	81
Which method you used	Pills	68
	Injectable	131
	Implant	48
	IUCD	12
	FS	2
	Condom	9
	Others	2
	Lack of knowledge	26
Reason for not used	Lack of access	0
	To get pregnant	19
	Fear of infertility	3
	Partner disapproval	3
	Fear of side effect	2
	It is sinful to use	13
	Culture taboo	11
	others	4
Do you using modern contraceptive currently	Yes	215
	No	139
Reason for not used modern contraceptive now	I am pregnant	23
	I want to be pregnant	43
	I am on exclusive breast feeding	13
	I fear side effect	22
	Others	39

Table 6: Factors associated with utilization of LAPMs.

Variables	Chi square	P-value
Age	13.752	0.033
Religion	3.358	0.34
Educational level	12.421	0.029
Partner`s educational level	8.134	0.149
Monthly income	0.027	0.87
Number of births give	7.62	0.06
Number of alive children	6.856	0.032
Number of more children	3.337	0.342
Wont to have a child with in two years	3.762	0.052

Number of children wanted in life	2.955	0.565
Discussion with partner about FP	9.321	0.002
Decider on the number of children want to have	6.868	0.076
Knowledge about LAPMs	26.955	0
Support using LAPMs	20.265	0
Partner attitude about using LAPMs	33.595	0
Intention to use LAPMs	38.105	0
Discussion with partner about LAPMs	34.643	0
Knowledge about LAPMs	26.955	0

DISCUSSION

The overall utilization modern contraceptive was 60.7%. Of this LAPMs utilization was (18.9 %) from this implant, IUCD, female sterilization and male sterilization accounts 13.3%,4.5%,0.8% and 0.3% respectively. which is higher than the prevalence reported in Goba 8.7% [13]. This might be due to increase in access to service, availability of health extension workers and continues promotion of contraceptives through media. Similar study also conducted on Mekele town show that the overall utilization of LAPMs was 12.3%, from this implant and IUCD counts 87% and 13% respectively. This discrepancy might be due to difference in resident of study participants and study period. The major source to obtain contraceptive for married women was a governmental health facility (72.5%). This result was similar with finding of EDHS 2011 (82%) and Mekele (83%) [4,11].

The reason cited by women who did not use modern contraceptive were fear of side effect (15.7%), want to be pregnant (30.7%), current pregnancy (16.4%), exclusive breast feeding and other (27.9%). However, in the study conducted in Mekele town the main reason cited by married women for not using LAPMs was the use of another method of contraceptives 93.3%, developing side effect 3.9%, not allowed by husband and medical problem 1.6% and the non-availability of service 1.3% [11]. In this study majority of respondents did not want to have a child with in two years for the reason that limiting 47.3% than spacing 35.6%.

This study showed those 90.4% respondents were known about modern contraceptive. Of this pills 89%, injectable 87.6%, implant 63.5%, IUCD 49.9%, female sterilization 28.2%, male sterilization 17.5% and condom 66.4%. Similarly research done in Nigeria on community based study of contraceptives behaviours shows that most known type of modern contraceptive was pills (32.3%), followed by injectable(28.2%), condom (28.2%) and IUCD (18.5%) [14-17]. According to 2011 EDHS report knowledge of modern contraceptive among married women were 97.4%, the most known modern contraceptives was injectable which accounts 96.1% followed by pills (92.6%), condom 78.1%, implant 69.2%, female sterilization 39.8%, IUCD 26.4% and the least known is male sterilization (10.8%) [14]. Research conducted in butajira about 99% of women knew modern contraceptives of this 97.8%,97.5%,82%,81.9%,74.4% and 13.1% knew injectable ,pills, vasectomy, condom, Norplant and IUCD respectively. This difference might be due to availability of health extension worker and difference in setting area [20].

The overall knowledge of respondent about LAPMs was 63.6%. Of this the most known type was implant (99.5%) followed by IUCD (78.2%), female sterilization (28.2%) and male sterilization (27.5%). Another research conducted in Batu on demand for LAPMs and associated factor FP service users knowledge about

LAPMs was 58.3%; implant was the most common known method account 94% followed by IUCD 49.6%, female sterilization 9% and male sterilization 7.8% [18-22]. The reason for this discrepancy is due to the difference in study area and time of data collection.

Among respondents who knew about LAPMs 99.1%, 86.7%, 52.9% and 39.1% knew that LAPMs used for prevention of unwanted prevention, child spacing, limiting family size and preventing maternal and child death in general respectively. According to this study of respondent knew that IUCD used for long term, immediately reversible, very effective, minimal side effect which account 76.6%, 49.3%, 38.2% and 23.1% respectively. And only 8.9% knew that IUCD is not good for female at high risk for long term effect (95.6%) and others identified use of implant were immediate reversibility (62.1%), minimal side effect 25.3% and absence of effect on breast feeding (17.3%). Twenty seven point six percent of respondent knew that male sterilization is used for permanent effect and only 4% knew that full effectiveness of male sterilization after three month of procedure. In addition to this, 42.7% knew that irreversible effect of female sterilization and 8.9% did not know long term side effect. in contrast to this the study conducted in Mekele showed among the married women 77.5% and 44.4% had awareness on the advantage of LAPMs for prevention of unwanted pregnancy and helps to have planned family, 37.8% of the women were knew that IUCD can prevent pregnancy for 10 years, 42.5% were not sure of IUCD is good for female at risk of acquiring STI and 48% and 62.2% of the women aware of that IUCD has no influence on sexual intercourse and it results immediate pregnancy after removal respectively in addition to this the majority of married women 69.7% aware that implants result immediate pregnancy after removal and 33% of married women knew that male sterilization has no influence on sexual intercourse [11].

This study shows that 49.7% were discussed about LAPMs with their partner/friends and 73.7% support using LAPMs. More over 47.5% of their partner support using LAPMs and 17.2% opposes using LAPMs. Both husband and wife (54.2%) were responsible to practice contraception while husband and wife alone 1.1% and 44.6% respectively. In this study support using LAMPs, women educational status and discussion with partner about LAPMs were statically significant association with utilization of LAPMs. A research done on Butajira town shows that discussion with partner about LAPMs, women educational status and support using LAPMs were significant association with utilization of LAPMs. In addition, in this study intention to use LAPMs, partner attitude towards LAPMs, age and knowledge about LAPMs had also statically significant association with utilization of LAPMs. Despite of this monthly income, religion, partner education level, number children and decider on number of to have were not statically significant association with utilization of LAPMs.

This study had limitation in terms not including men as study participant to explore the difference in knowledge, attitude and practice between men and women. It did not particularly ask the involvement of men in the utilization of family planning and their intention towards its use. Farther more as it is crosses sectional study it was difficult to know which occurred first cause and effect.

CONCLUSION

Utilization of LAPMs of contraceptive in the town was 18.9%. Knowledge of LAPMs was 63.6% and the most and the least known method was implant and vasectomy respectively. Governmental health facility is the main source of modern contraceptive for current utilization and the major source of information on modern contraceptives was health professionals. Majority of respondents support using LAPMs and more than half have intention to use LAPMs.

COMPETING INTERESTS

The authors declare that they have no any competing interests.

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