

Factors Affecting Intention to Use Long Acting and Permanent Contraceptive Methods among Married Women of Reproductive Age Groups in Western Ethiopia: A Community Based Cross Sectional Study

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Abstract

Background : Long-acting and permanent contraceptive methods are the most effective methods for preventing unintended pregnancies. In Ethiopia majority of married women practiced predominantly short acting contraceptive methods, whereas the proportion of women who were using long acting and permanent contraceptive methods were only 4%.

Method: A community based cross- sectional study design was used . Multi stage sampling procedure was used to select 802 married women. Data collection was carried out from April 10 to April 25, 2014 using a pre- tested structured questionnaire. The data were entered into a computer using Epi-info 3.5.1 and then exported to SPSS for Windows version 20 for analysis. Bivariate and multivariate logistic regression analysis were done, odds ratio and 95% confidence interval were calculated.

Result: Intention to use long acting and permanant contraceptive methods was 18.2%. The majority of women intended to use implant (51.4%). The finding showed that a significant positive association between intention to use long acting and permanent contraceptive methods and women's education (AOR=1.82, 95%CI = 1.09 – 3.04), women's occupation (AOR = 2.56, 95% CI = 1.47-4.46), joint fertility related decision (AOR = 2.76, 95% CI: 1.40-5.42), and discussion with health care provider about long acting and permanent contraceptive methods (AOR = 2.08, 95% CI: 1.40-3.09).

Conclusion and Recommendation: In this study prevalence of intention to use LAPMs was (18.2%). Thus program manager and stakeholders should empower women through education, create awerness on LAMPs and address misconceptions and fears of clients on LAPMs . Every woman who seeks family planning information or services should be counseled on LAMPs of contraceptives to enable informed choice.

Keywords: Factors; Intention; Unintended pregnancy; Nekemte

Introduction

Globally more than half of all pregnancies are unintended and large disparities exist in access to the most effective methods of contraception. Only about 1 in 4 women of reproductive age in Africa use a modern method of family planning, and this proportion is substantially lower in many countries of the region [1,2].

Today more than 200 million women and girls in developing countries who do not want to get pregnant lack access to contraceptives, information and services which, for many, will cost them their lives [1,3]. Sub-Saharan Africa as a whole has the world's highest maternal mortality ratio, contraceptive prevalence of only 25% [4].

The use of contraceptives methods can improve maternal mortality by reducing unintended and high-risk pregnancies and unsafe abortions. These services can also help improve newborn and child survival by lengthening inter-pregnancy intervals [5,6].

Long-acting and permanent methods (LAPM) include the intrauterine device (IUD), implant, male and female sterilization. The IUD and implant are reversible, and may also be referred to as long-acting reversible contraception (LARC). These methods are useful for couples wishing to space pregnancies. Male and female sterilization are permanent methods for couples who have completed childbearing [7,8].

Long-acting and permanent methods (LAPMs) of contraception offer an unused opportunity to meet the needs of a variety of people in different age groups. They offer individuals and couples advantages that other methods of family planning do not, and their provision gives women who want to space or limit their pregnancies more choices. Use

of LAPMs can also improve the health and well-being of entire families [6-8].

LAPMs are the most effective methods for preventing unintended pregnancies. Most modern methods of family planning are highly effective when used correctly and consistently during every act of sexual intercourse. In typical use, when people occasionally forget to use a method or use it incorrectly, many contraceptive methods are not as effective. During one year of typical use, LAPMs are between three and 60 times more effective than most short-acting methods [8,9].

In Ethiopia majority of the married women practiced predominantly short acting contraceptive methods, whereas the proportion of women who were using LAPMs is only 4%. Some studies in Ethiopia showed that intention to use LAPMs ranges from 38% to 48% [10-12].

In previous studies husband approval, fear of side effect, educational attainment, occupation of participant were some of the factors affecting

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intention to use long-acting and permanent contraceptive methods [8,11-13].

The current study deals with predictors of intention to use long-acting and permanent contraceptive methods among married women in Western Ethiopia. The finding of the study will be used by policy makers and program managers to identify barriers to use LAMPs so as to increase utilization of LAMPs in the study area.

Materials and Methods

Study design, setting and participants

A community-based cross-sectional study was employed from April 10 to April 25, 2014 among married women of reproductive age groups in Nekemte town, Oromia Region, West Ethiopia. Nekemte town is a capital of East Wollega Zone (Province) located at 321 km from Addis Ababa. The total population of the town is estimated to be 75,219 of which 38,385(51%) are females [14]. All ever married women aged 15-49 years and lived in the study area at least for 6 months were included in the study. Women who were critically ill, mental incapable to provide informed consent and infecund were excluded from the study.

Sample size and sampling procedures

The sample size was determined by using a formula for estimation of single population proportion with the assumption of 95% confidence interval, 5% margin of error, and the prevalence of intention to use LAPMs in the future (48.4%) [12] and design effect of 2. To compensate for the non-response rate, 5% of the determined sample was added up on the calculated sample size and the final sample size was 807.

A multi-stage sampling technique was employed for the selection of the sampling units. Three sub-cities were selected from the six in the town of Nekemte, followed by the random selection of four zones from each sub-cities. The calculated sample sizes for these zones were proportionally allocated based on the number of married women living in each of them. One house was randomly selected as the initial household in each zone, and the final households with married women were selected using systematic random sampling from the existing sampling frame of households. Finally, eligible married women of reproductive age groups in the selected households were asked to participate in the study. When two or more married women were in a household, only one of them was randomly asked to participate, to avoid intra-class correlation.

Data collection procedures

A pre-tested structured questionnaire was adapted from different literature [10-13]. The English language questionnaire was translated into the regional language of Afan Oromo, and then translated back to English by other people who are proficient in both languages to maintain the consistency of the questionnaires. Five high-school completed females administered the structured questionnaire, after a 4-day training session that included information about the objective and relevance of the study, confidentiality of information, participants' rights, informed consent, interview techniques, and practical demonstration of the interview. Four degree-prepared colleagues supervised the data collection procedures. Supervision involved reviewing all questionnaires at the end of every day, followed by morning meetings with the data collectors to discuss on any problems encountered during data collection.

Data processing and analysis

Data was cleaned and entered into a computer using Epi-info

Window version 3.5.1 statistical program. Then the data was exported to SPSS Windows version 20.0 for analysis. The descriptive analysis including proportions, percentages, frequency distribution and measures of central tendency was done.

Initially, bivariate analysis was performed between dependent variable and each of the independent variables, one at a time. Their odds ratios (OR) at 95% confidence intervals (CI) and p-values were obtained, to identify important candidate variables for multivariate analysis. All variables found to be significant at bivariate level (at p-value<0.05) were entered in to multivariate analysis using a logistic regression model in order to control for confounding factors.

Ethical considerations

Ethical clearance and permission was obtained from Wollega University Institutional Review Board. Permission was secured from all sub cities of Nekemte town through a formal letter. Written Informed consent were obtained from each respondent before interviewing. Confidentiality of individual client information was ensured by using unique identifiers for study participants and limiting access to the principal investigator and research assistants of study information by storing the completed questionnaires and all documents with participant information in a lockable cabinet.

Results

Socio-demographic characteristics

A total of 802 married women of reproductive age groups completed the questionnaire making a response rate of 99%. The mean age of the study participants were 28 ± 6.1 and their age ranging from 16 to 46 years. The majorities of the respondents were Oromo ethnic group (74.6%), Protestant (46.1%), completed secondary school (24.7%), their husbands' completed college education and above (26.2%), more than half (54.4%) were house wives, (43.0%) of their husband were daily laborer. Mean monthly income of the participants was 1454 ETB. Out of the total married women 553 (69.0%) had radio and/or television (Table 1).

Fertility and reproduction related characteristics

The majority of the participants (96.1%) had pregnancy at least once during the study period and the mean number of living child was 2.24. Two third (66.4%) of the study subjects had less than or equal to two living children. More than half (57.1%) of the study participant expressed a desire for more children in the future. From those who desired to have children in the future (41.6%) of the respondents need more children because they have few children. More than half (53.5%) of the husbands of the respondents desired to have children in the future. The majority of the respondent (81.5%) decided on fertility issue jointly with their husbands. The main reason for not to use LAPMs in the future were (49.0%) rumors about LAMPs and (38.9%) fear of side effect associated with the methods (Table 2).

Awareness and intention to use LAPMs

From the total study participants (82.5%) of them heard of at least one method of LAPM and (78.2%) of them heard about LAPMs from health workers. The most common type of LAPM known was IUCDs (73.2%). Nearly one third (31.3%) of the respondents discussed LAPMs with service providers (Table 3). Seventy five (51.4%) of the respondents intended to use Implant followed by IUCDs (47.9%) (Figure 1).

Factors associated with women's intention to use LAPMs

Women who had secondary school education and above were 1.82

times more likely to have intention to use LAPMs compared to those who had primary school education and below [AOR=1.82, 95%CI = 1.09-3.04]. Those respondents who were government employed were 2.56 times more likely intended to use LAPMs in the future than others

Variables (802)	Number (%)
Age category	
15-24	239(29.8)
25-34	414(51.6)
35-44	141(17.6)
>44	8(1.0)
Ethnicity	
Oromo	598(74.6)
Amhara	161(20.1)
Tigre	28(3.5)
Others*	15(1.9)
Religion	
Protestant	370(46.1)
Orthodox	352(43.9)
Catholic	14(1.7)
Muslim	66(8.2)
Educational status of the respondent	
Can't read and write	93 (11.6)
Can read and write	72(9.0)
G1-4	141(17.6)
G5-8	173(21.6)
Secondary	198(24.7)
College and above	125(15.6)
Educational status of the husband	
Can't read and write	51(6.4)
Can read and write	49(6.1)
G1-4	80(10)
G5-8	210(26.2)
Secondary	202(25.2)
College and above	210(26.2)
Occupational status of the respondents	
Governmental Employee	109(13.6)
Daily laborer	133(16.6)
Housewife	436(54.4)
Merchant	77(9.6)
Student	43(5.4)
Others	4(0.5)
Occupational status of the Husband	
Governmental Employee	277(34.5)
Daily laborer	345(43.0)
Merchant	125(15.6)
Student	17(2.1)
Others****	38(4.7)
Income (ETB)	
<600	183(22.8)
600-1000	240(29.9)
1001-1500	105(13.1)
1501-2000	133(16.6)
>2000	141(17.6)
Mean	1454 ETB
Have radio and/ or TV	
Yes	553(69.0)
No	249(31.0)

Table 1: Socio demographic characteristics of Married women in Nekemte town, Nekemte, Ethiopia, April, 2014 (Other*=Gurage, Shinasha, Other**=Wakefeta, Jehovah's Witness, Other***=petty maker, house maid, Other****=Driver, carpenter, 1\$=20 Ethiopian Birr (ETB)).

Variables	Number (%)
Have you ever pregnant (802)	
Yes	771(96.1)
No	31(3.9)
Number of children alive (771)	
=<2	512(66.4)
>2	259(33.6)
Future fertility desire (802)	
Yes	458(57.1)
No	287(35.8)
I don't know	57(7.1)
Reason for future child desire (458)	
Have few children	334(41.6)
Need of son	90(11.2)
Death of child	19(2.4)
No response	41(5.1)
Other*	
Husband fertility desire (802)	
Yes	429(53.5)
No	270(33.7)
Don't know	103(12.8)
Decision on fertility (802)	
Wife	35(4.4)
Husband	113(14.1)
Jointly	654(81.5)
Reason not intend to use LAPMs	
Fear of side effect	312(38.9)
Lack of awareness of the LAPM	171(21.3)
Rumors they are not good	393(49.0)
Influence of other Important people	48(6.0)
Not my preferred method	263(32.8)
To have more children	252(31.4)
Husband disapproval	180(22.4)
Religion prohibition	24(3.0)
Fear of infertility	207(25.8)

Table 2: Fertility desire and reproductive history of married women in Nekemte town, Nekemte, Ethiopia, April, 2014 (Other*= Others influence).

Variables	Number (%)
Ever heard of LAPM methods(802)	
Yes	662(82.5)
No	140(17.5)
Source of information on LMPM (662)	
Health worker	518(78.2)
Radio	480(72.5)
TV	496(74.9)
Friends	160(24.2)
Other*	12(1.8)
Type of LAMPS methods ever Heard (662)	
IUCD	587(73.2)
Implant	576(71.8)
Female sterilization	193(24.1)
Vasectomy	58(7.2)
Ever discussion of LAPMs with health worker (802)	
Yes	251 (31.3)
No	551 (68.7)
Intention to use LAMPS in the future	
Yes	146(18.2%)
No	656(81.8)

Table 3: Awareness & intention to use LAPMs in the future among married women in Nekemte town, Nekemte, Ethiopia, April, 2014.

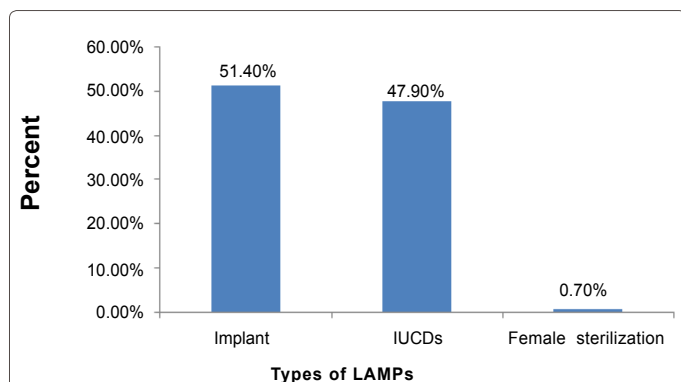


Figure 1: Method intended to use in the future by married women Nekemte town, Nekemte, Ethiopia, April, 2014.

occupation (AOR = 2.56, 95% CI = 1.47-4.46). Women's who had joint discussion with their husband on fertility issue were nearly three times more likely to have the intention to use LAMPs compared to those who had no joint discussion [AOR = 2.76, 95% CI: 1.40-5.42]. Respondents who had discussion with health professionals about LAMPs were two times more likely intended to use LAMPs than their counterparts [AOR = 2.08, 95% CI: 1.40-3.09] (Table 4).

Discussion

The current study tried to assess factors associated with future intention to use long acting and permanent contraceptive methods among non-user of LAMPs in western Ethiopia.

In this study the prevalence of intention to use LAMPs was (18.2%). This result was lower than findings from Wolaita Zone (38%) and Adigrat town (48.4%) [11,12]. The possible explanation for low intention to use LAMPs might be negative rumors and fear of side

effect about LAMPs. Majority of married women in this study intended to use implants (51.4%) followed by IUCD (47.9%). This finding is inline with studies done in Ethiopia [10-12,15].

In Ethiopia knowledge of at least one method of contraception is nearly universal [10]. In this study 82.5% of the participants were able to recognize at least one of the LAMPs. This finding was lower than findings from Goba town (86.9%) and Adigrat town (94.7%) [12,16]. The least known method was vasectomy (7.2%). This was similar with the findings in Adigrat and Mekelle [12,17].

In the current study multivariate analysis showed that women with secondary education and above were more likely intend to use long acting and permanent contraceptive in the future than primary education and below. This study is inconsistent with the studies done in Adigrat and Goba [12,16]. The finding was agrees with studies done in Bangladesh, Uganda, Rwanda, Wolaita Zone, Arba Minch Town Southern Ethiopia [11,18-21]. In EDHS 2011, 72% of women with more than secondary education are exposed to family planning messages through the television, whereas only 6% of women with no education are exposed to the messages [10]. The finding highlights the importance of female education to promote female decision making on fertility issue including family planning.

Government employed women were 2.6 times more likely express future intention to use LAMPs of contraceptive than women in other occupation. The present study is consistent with study conducted in Ethiopia [22]. The findings of this study disagree with the study done in Adigrat [12]. This could be due to exposure of women for reproductive related information and indeed employed women have better decision making power on fertility issues.

In previous studies discussion with partner about family planning (joint decision) and partner support were found to be important predictors of intention to use family planning [12,23-25]. In the current study women who decide on fertility issue jointly with partner were

Variables (n =802)	Using LAMPs		Crude OR OR(CI)	Adjusted OR OR(CI)
	Yes (%)	No (%)		
Education of respondents				
Below and Primary	60(12.5%)	419(87.5%)	1	1
Secondary and above	86(26.6%)	237(73.4%)	2.53(1.76 – 3.66)	1.82(1.09– 3.04)*
Education of Husband				
Below and Primary	50(12.8%)	340(87.2%)	1	
Secondary and above	96(23.3%)	316(76.7%)	2.07(1.42 – 3.00)	
Occupation of respondents				
Government Employed	43(39.4%)	66(60.6%)	3.73(2.41 – 5.78)	2.56(1.47– 4.46)*
Others	103(14.9%)	590(85.1%)	1	1
Husband Occupation				
Government Employed	73(26.4%)	204(73.6%)	2.22(1.54 – 3.19)	
Others	73(13.9%)	452 (86.1%)	1	
Monthly income				
<600	40(21.9%)	143(78.1%)	1	
600-1000	32(13.3%)	208(86.7%)	0.55(0.33 – 0.92)	
1001-1500	23(21.9%)	82(78.1%)	1.00(0.56 – 1.79)	
1501-2000	25(18.8%)	108(81.2%)	0.83(0.47 – 1.45)	
>2000	26(18.4%)	115(81.6%)	0.81(0.47 –1.45)	
Decision Making on fertility issue				
Joint discussion	135(20.6%)	519(79.4%)	3.24(1.79 –6.16)	2.76(1.40 – 5.42)*
Others	11(7.4%)	137(92.6%)	1	1
Discussion with health care provider about LAMP				
Yes	69(27.5%)	182(72.5%)	2.33(1.62 – 3.37)	2.08(1.40 – 3.09)*
No	77(14.0%)	474(86.0%)	1	1

Table 4: A multivariate logistic regression on intention to use Long Acting and Permanent Contraceptive Methods in Nekemte town, Nekemte, Ethiopia, April, 2014.

2.8 times more likely intend to use LAPMs of contraception. Women participation in household decisions including those related to fertility (i.e., high women autonomy in household matters; gender power balance in household decisions) as well as spousal communication on family planning have been indicated in several studies to be associated with increased likelihood of modern contraceptive use by women [13,15-17,26,27]. Partner discussion about fertility issue can enable women to take action in using family planning.

Women who had discussion with health worker about family planning were 2 times more likely intend to use LAPMs of contraceptives than their counterparts. This is similar with the finding from Goba town, South East Ethiopia [16]. According to EDHS 2011 among female non users 22% had visited a health facility in the past 12 months but did not discuss family planning with a provider, while 7% did discuss family planning [10]. The possible justification could be that discussion with health worker can remove rumor and misconception about LAPMs.

The limitation of this study was cross-sectional nature of the data that temporal relationship between exposure and outcome variable could not be established. In addition to that it lacks qualitative data.

Conclusion

In this study prevalence of intention to use LAPMs was (18.2%) which is lower than other findings in Ethiopia. Factors which were significantly associated with intention to use long acting and permanent contraceptive methods were women's educational level, women's occupation, joint fertility related decision and discussion with health care provider about long acting and permanent contraceptive methods. The main reason mentioned by women not intend to use LAPMs in the future were rumors, fear of side effects and not preferred method. Thus program manager and stakeholders should empower women through education, create awareness on LAMPs and address misconceptions and fears of clients on LAMPs. Every woman who seeks family planning information or services should be counseled on LAMPs of contraceptives to enable informed choice.

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Authors' Contributions

TT, AS, DW carried out the research from conception to the write up of the final draft of the article. All authors read and approved the final manuscript.

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