

Long acting contraceptive utilization and associated factors among women using modern contraceptive methods in Gondar town, Northwest Ethiopia

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Abstract

Introduction: Globally, around 41% unintended pregnancies occurred during 2008, and some of these unintended pregnancies occurred among women who were not using contraceptives. Long acting methods of contraception can make a significant contribution to decrease unintended pregnancy. The aim of this study was to assess long acting contraceptive use and its associated factors.

Methods: A community based cross-sectional study design that used multi-stage sampling technique. A total of 565 women were included in the study. Multivariate logistic regression model was fitted to identify the independent predictors.

Results: In this study, the proportion of long acting contraceptive methods utilization was found to be 18.1%. The independent predictors of utilization were number of live children, intention for the next pregnancy, and educational status of the respondent, occupation of the respondent's knowledge about long acting contraceptive methods and discussion with the partner intention of the next pregnancy.

Conclusion: The utilization of long acting contraceptive methods was found to be suboptimal compared to similar studies in Ethiopia. There is a need of interventions on having three or more alive children, being employed, being secondary and above in educational status, and having discussion with the husband. Counseling of clients and partner discussion were some of the recommendations.

Keywords: Long acting, permanent methods, utilization, contraception

Introduction

Family planning helps to meet the need for spacing and limiting births which have the potential to prevent thousands of cases of maternal mortality (USAID 2007). Globally, around 208 million pregnancies occur each year, among this 41% were unintended pregnancies. Some of these unplanned pregnancies occur among women who are not using contraception (Peterson HB 2005; Celina Palena, M Valeria Bahamondes et al. 2009; Singh, Sedgh et al. 2010). Worldwide, about 800 mothers die from pregnancy-child birth related complications every day (WHO 2012). In 2010, a Maternal Mortality Ratio (MMR) was 210 maternal deaths per 100, 000 live births. Developing countries account for 99% of the global maternal deaths and sub-Saharan Africa (SSA) alone accounts for 56 % (WHO and UNICEF 2012). Fortunately, the vast majority of maternal and newborn deaths can be prevented with proven interventions to ensure that every pregnancy is wanted using modern contraceptive and every birth is safe (Roy Jacobstein 2008). Spacing and limiting births have the potential to prevent hundreds of thousands of child deaths and the MMR. Wider access to and use of family planning, especially of long acting and permanent methods of contraception (WHO and UNICEF 2012). Many developing countries are characterized by rapid population growth that is partly attributable to high fertility or birth rates accompanied

by steady declines in death rate and low contraceptive prevalence rate (USAID/HPI 2007; Timothy CO, Nelson WW et al. 2011). In each of sixteen sub-Saharan countries studied, between 72,000 and 1.1 million child deaths are expected to be averted over the next decade if all women who want to space or limit their births actually succeed. Increased use of Long Acting Permanent Methods (LAPMs) are essential to prevent unintended pregnancies (Hubacher, Kimani et al. 2007). According to the Ethiopian Demographic and Health Survey (EDHS 2011), 2% of births in Ethiopia are not wanted while 18.7% of births are mistimed. Currently 29% of married women are using a method of family planning, and the majority of them are using a modern method (Ethiopian Demographic and Health Survey 2011). Unfortunately, without knowing the factors that affect LAPM utilization, LAPM coverage may not increase. This current study reveals the factors that determine LAPM use for understanding selection and factors. Thus, this study was aimed at assessing long acting and permanent contraceptive use and its associated factors among women using modern contraceptives in Gondar town, Northwest Ethiopia.

Materials and Methods

Community based cross-sectional study was conducted in Gondar administrative city from June to August 2015. By using a single population proportion

formula; the final minimum sample size was found to be 570. Multi-stage sampling technique was used to choose eligible women in the study area. Based on urban and rural strata of the city, three urban and four rural kebeles were selected randomly by using lottery method. Study participants were selected systematically with a defined interval proportional to each selected kebeles based on their residence. If there was more than one woman in the same household, a lottery method was used to select the woman to be included. Women of reproductive age who used modern family planning methods were interviewed. Binary logistic regression was used to examine association between dependent and each independent variable. Backward stepwise likelihood ratio was used

to select the final independent predictors. The significance of Odds Ratios (OR) was determined with 95% CI and $p < 0.05$. Ethical clearance was obtained from University of Gondar, and letter of permission was obtained from the respected health institutions. Informed consent from each study participant was obtained after explaining the purpose of the study.

Results

The study was conducted with a 99.1% response rate from a total of 565 recruited women using a modern contraceptive. The mean age of study participants was 28.78 years with standard deviation of (± 3.97). Among the total participants, 80.5% were urban residents (Table 1).

Table1: Socio-demographic characteristics of respondents in Gondar town, 2015

Characteristics	Frequency	%
Age (=565)		
15-19	2	0.4
20-24	41	7.3
25-29	349	61.8
30-34	119	21.1
>35	54	9.6
Religion (n=565)		
Orthodox	480	85.0
Jewish and other	48	8.5
Muslim	37	6.5
Marital status (n=565)		
Married	478	84.6
Widowed,	15	2.7
Divorced	32	5.7
Single	40	7.1
Residence (n=565)		
Urban	455	80.5
Rural	110	19.5
Educational level(n=565)		
No formal education	265	46.9
Secondary	122	21.6
Elementary	104	18.4
Diploma and above	74	13.1
Occupational level (n=565)		
House wife	400	70.8
Governmental employee	61	10.8
Student	30	5.3
Merchant	25	4.4
Student	49	8.7
Educational level of husband (n=478)		
Diploma and above	151	26.7
Non formal education	131	23.2
Secondary	127	22.5
Elementary	69	12.2
Occupational level of the husband(n=478)		
Government employee	145	25.7
Daily laborer	108	19.1
Merchant	93	16.5
No occupation	60	10.6
Farmer	72	12.7

The proportion of LACM was 18.1%. Majority of women used implants (86.5%) followed by IUCD

(13.4%). There were no women who underwent female sterilization (Figure 1).

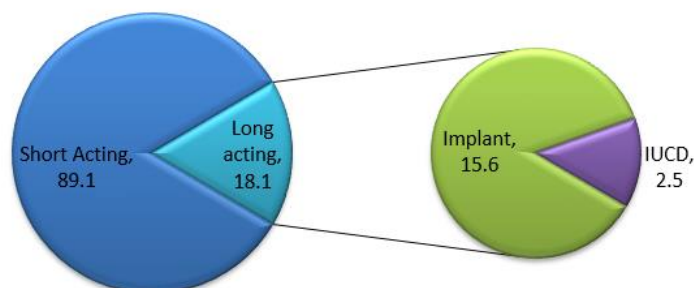


Figure 1: Utilization of LAMP among women using modern contraceptive method in Gondar town, Northwest Ethiopia, 2015

The mean number of live children for those women were 2.28 ± 0.673 . Nearly 47% of the respondents who

were utilizing LAMP had 1-2 children and 45.5% had three or more children (Table 2).

Table 2: Percentage of intention to use, discussion with husband and number of live children among women using modern contraceptive Methods, Gondar town, Northwest Ethiopia, 2015

Variables	Frequency	%
Intention of the next pregnancy (n=553)		
Less than 2 years	52	9.4
After 2 years	277	50.1
Depend on the Husband	59	10.7
Don't want any more children	165	29.8
Intention for use of contraceptive (n=498)		
Short acting contraceptive	323	52.9
Long acting contraceptive	169	29.9
Permanent contraceptive	6	1.1
Number of live children		
No children	87	15.4
1-2 children	292	51.7
3+ children	186	32.9
Discussion with partner		
Yes	168	29.7
No	397	70.3

Awareness of mothers towards LAMP was found to be 92.2%. Of those, 88.1% were aware towards implants. Nearly 58.4% women mainly got information of LAMP from health institutions.

Advantages and disadvantages of LAMP were heard by 83% and 51.2% of participants respectively. The commonly mentioned disadvantages were headache, menstrual disturbance and infertility (Table3).

Table 3: Percentage of ever heard of LAMPs among women using modern contraceptives in Gondar town, Northwest Ethiopia, 2015

Variables(n=565)	Frequency	Percentage
Heard of LAMP		
Yes	521	92.2
No	44	7.8
Women Heard about(=521)		
Tubal ligation	125	22.1
IUCD	337	66.7
Implant	498	88.1
Heard about advantage of LAMP		
Yes	469	83
No	96	17
Heard about the side effect		
Yes	289	51.2
No	276	48.8

Around 59.6% of participants had positive attitude towards LAMP. Number of live children, occupation, educational status and respondents' discussion with husband showed significant association with LAMP utilization. Those who had no children were found to be 1.96 times more likely use LAMP than those who had 3 children [AOR=0.51, 95%CI: 0.30, 0.87]. Those who had no children were found to be 4 times more

likely use LAMP than those who had 1-2 children [AOR=0.24: (0.10, 0.59)]. Those study participants who had a secondary and above level education were 2 times more likely to use LAMP than those who had no formal education [AOR=2.18, 95% CI: 1.06, 4.48]. Women who had discussion with their husbands on family planning were 4 times more likely to utilize LAMP than those who did not have discussion

(AOR=4.19,95% CI:(2.56,6.85)]. Furthermore, unemployed women were 2 times more likely to use

LAPM as compared to those women who were employed [AOR= 0.49, 95% CI: 0.26, 0.93].

Table 4: Bivariate and multivariate analysis of utilization and associated factors of long acting and permanent contraceptive method in Gondar town, Northwest, Ethiopia, 2015

Variables	LAPM		COR (95% CI)	AOR (95% CI)
	Yes	No		
Knowledge about of LAPM				
Yes	58	307	0.69 (0.45,1.07)	
No	43	157	1	
Number of live children				
No children	8	396	1	1
1-2 children	47	34	0.31 (0.14,0.69)	0.24 (0.10,0.59)**
3+ children	46	34	0.58 (0.37,0.92)	0.51 (0.30,0.87)*
Religion				
Orthodox	84	396	1	
Muslim	3	34	0.42(0.13,1.39)	
Jewish and others	14	34	1.94(1.00,3.78)	
Educational status of the respondent				
Not formal education				
Primary	27	238	1	1
Secondary and above	29	75	3.41(1.90,6.12)	0.62(0.31,1.23)
	45	151	2.63(1.56,4.41)	2.18 (1.06,4.48)*
Occupation of the respondent				
Un employed				
Employed	56	344	1	1
	45	120	2.30 (1.48,3.59)	0.49 (0.26,0.93)*
Intention of the next pregnancy				
Spacing				
Limiting	3	50	1	
Depend on husband	90	353	4.25 (1.30,13.94)	
Respondents discussion	8	50	2.67 (0.67,10.64)	
With husband				
Yes				
No	60	108	4.82 (3.07,7.58)	4.19(2.56,6.85) **
	41	356	1	1

Note: ** p -value ≤ 0.001 , * p -value ≤ 0.05 , other includes Protestant and Catholic

Discussion

There is still discrepancy in the need to limit birth and utilization of modern contraceptives particularly LAPM in sub-Saharan Africa specifically in Ethiopia. Contraceptive utilization positively influences the socioeconomic development of a country by allowing families to space and limit their family size (Addissie 2014). In this study, the overall proportion of LAPM was 18.1%. Among this, 87.3% of the respondents were using implants but none of the women used a permanent method of contraceptive. This was due to fear of discrimination. This result is higher than other studies done in Ethiopia which were 8.8%, 3%, 12.3% and 8.72% in Batu, Mekelle and Goba town respectively (Abulie et al. 2012; Mussie, et al. 2012; Haile et al. 2012). This discrepancy might be due to presence of better health care access. For example, both governmental and nongovernmental organizations were used in the current study area. This created a better opportunity to get health education as well as information related to LAPM use.

The educational status of women's was significantly associated with use of LAPM. Women who were at

secondary and above level of education were two fold more likely to use LAPM than those who were not formally educated. These results are supported by a study done in Dembia and Butajira (Kebede 2006; Wubegzier and Worku 2011). Women's educational status helps to choose the most effective contraceptive method and their ability for decision making. Those study participants who had more than 3 children were found to be 47% less likely to use LAPM than those who had no children which is concurrent with a study finding conducted in East part of Ethiopia which showed intention to use LAPM to have more children in their life time and misperception about its reversibility (Addissie 2014). But this finding is inconsistent with another study done in Batu (Haile and Fantahun 2012). This might be due to the preference of a LAPM to space birth than to limit birth in the town.

In this study, LAPM utilization was affected by employment status of women. It was noticed that employed women were 51% less likely to use LAPM compared to those women who were unemployed. This could be due to the income difference between

them. Women's discussion with their husband was also significantly associated with LAPM use. Women who discussed LAMP with their husbands were more than four times more likely to use LAPM compared to those who did not. This result was consistent with studies conducted in Mekele, Goba and in Butajira (Wubegzier and Worku 2011; Abulie, et al. 2012; Mussie, Tefera et al. 2012). It is evident that open discussion by women with their husband empowers them to appropriately choose a method of contraception through efficient risk and benefit analysis of method of choice.

Conclusions and Recommendations

Though the proportion of women currently using LAPMs was higher, it was lower than short acting contraceptive. Number of three and above alive children, being employee, more than secondary and above level of education, discussion with husband had been found to have significant association for LAPM utilization. Age, husband education, intention of the next pregnancy and husband occupation had no showed association. Discussion with in a family and at the community level regarding to reproductive health and family planning programs should be emphasized to promote LAPM.

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