Available online on 15.12.2019 at http://jddtonline.info

Journal of Drug Delivery and Therapeutics

Open Access to Pharmaceutical and Medical Research

Open Access Research Article

Modern Contraceptive Use and Associated Factors among Reproductive Age Group Women in three Peri-Urban Communities in Central Ethiopia

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ABSTRACT

Introduction: - Amongst the family planning program is the use of modern contraception. It is one of the key fundamentals of health services whose benefits are wellbeing's of mothers, husbands, families, and their country in general. According to the world fertility rate report 2015, Ethiopia is expected to achieve a TFR of 2.4 children per woman between the years 2025-2030.

Objective: - the principal objective of the current study was to determine the prevalence of modern contraception use and factors that affect utilization.

Methods: - a quantitative community based cross-sectional study was done in three peri-urban communities of Batu, Eastern Shewa zone of Oromia region of Ethiopia from October to November 2017. A total of 351 women in the reproductive age group were interviewed with a questionnaire in the form of a house-to-house survey. Statistical analysis was done using the statistical package for social sciences (SPSS) software version 21.0.

Results: - the study showed that the contraception prevalence was 37.9%. Forty-seven percent of the users were in the age group 21-29. Knowledge, formal education and religion were associated with contraception utilization. It was found that knowledge and formal education were the enhancing factors for utilization whereas the Muslim religion was an inhibiting factor for modern contraceptive use.

Conclusion: - the contraceptive prevalence was higher than the national result for the rural community but lower than the urban community was. Both governmental and non-governmental organizations should continue the good work of building community awareness of modern contraceptive methods.

Keywords: - Contraceptives, knowledge, attitude, practice, Batu

Article Info: Received 03 Oct 2019; Review Completed 12 Nov 2019; Accepted 20 Nov 2019; Available online 15 Dec 2019

Cite this article as:

Abiye AA, Fekede B, Jemberie AM, Molla BA, Tolla BK, Tefera BS, Barkiligne BM, Dirbaba BD, Olana BD, Tesfa BW, Kemal HS, Deresse AS, Modern Contraceptive Use and Associated Factors among Reproductive Age Group Women in three Peri-Urban Communities in Central Ethiopia, Journal of Drug Delivery and Therapeutics. 2019; 9(6-s):93-102
http://dx.doi.org/10.22270/jddt.v9i6-s.3651

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INTRODUCTION

Approximately 16 million girls aged 15 to 19 years and 2.5 million girls under 16 years give birth each year in developing regions (1). Global fertility pattern has shown dramatic change with the current global fertility being 2.5 children per women (2). However, the trend in fertility varies across regions, and Africa remains to be a region having high fertility with 4.7 children per women (3). Even worse is the case in sub-Saharan countries where a woman on average has five or more children over her lifetime. (4,5). Ethiopia, a country in sub-Saharan Africa, has shown a reduction in TFR from 5.5 in 2000 EDHS to 4.6 in 2016 EDHS(6). According to the world fertility patterns 2015, Ethiopia is estimated to achieve a TFR of 2.4 children per woman between the years 2025-2030(4).

Reduction in fertility is an essential factor that defines economic growth and good health (7). There is a significant positive association between fertility reduction and fall in maternal, infant and child mortality (8,9). Unplanned pregnancies remain a major worry in developing nations with 120 million women giving childbirth while their actual need is to limit family size (10). For these reasons, Ethiopia has made a commitment to enhance family planning program (FPP), which is an important factor that determines the reduction of fertility rate(11).

Amongst the FPP is the use of modern contraception(12). It is one of the key fundamentals of health services, whose benefits are wellbeing's of mothers, husbands, families, and their country in general(13). Contraceptive methods can be divided into two categories: modern and traditional(14). Modern contraceptives include oral contraceptives, intrauterine devices (IUDs), female and male sterilization, injections, condoms and the diaphragm(15) while the traditional ones include withdrawal, rhythm and cycle methods(13).

The utilization of modern contraception provides a solution for the reduction of a high fertility rate that is prevalent in the country(16). It is estimated that up to 35% of maternal deaths and 13% of child mortalities could be averted while 25% of under-five mortalities could be prevented if birth intervals were at least three years and by the use of various contraceptive methods in planning their families(17). However, the use of contraception is not a simple decision(18). There are multiple factors, such as educational status, economic status, religion, culture, place of residence and perceptions that affect the actual utilization(19,20).

The contraception prevalence rate (CPR), the percent of women in reproductive age using contraception method, has been increasing since 2000 in Ethiopia. The CPR has shown a variance between the urban and rural communities. The rural communities have shown a nine-fold increase from 4.3% in EDHS 2000 to 39% in Ethiopia mini demographic and health service (EMDHS) 2014(21). The latest, 2016 EDHS shows a CPR of 33% for the rural communities(6). This is still far from the overall goal of HSTP for 2020, which is a CPR of 55% for base case targets(22).

To have a successful reduction in TFR, it is important that access must increase(12). Universal access to family planning information, services, and contraceptives utilization in the rural settings require a collaborative effort from the local and international organizations with an aim to promote the service and ensure its sustainability(23). In Ethiopia, 90% of the population have access to modern family planning, 87% of health facilities and 79% of health posts provide this service at least five days per week(22). Regarding the study area, rural Batu, Ethiopia, contraceptives and health care services are provided for free mainly through the support of bilateral donors and nonprofits. There is a private health care sector in Batu (Sher Ethiopia private hospital), which some women do use, particularly in some of the urban area(24), but close to 95 percent of all family planning needs are provided for free by the public sector(25). Indicating access is not the priority and limiting problem. However, there are still factors that contribute to the actual utilization of modern contraceptives. Since there was no documented study regarding factors affecting contraceptive use in Adami Tulu district of East Shewa, this study was conducted to assess the magnitude and principal factors restricting modern contraceptive utilization among women of reproductive age in the three peri-urban communities (Bochesa, Abene-Girmamo, and Dodicha) of Batu Town.

MATERIALS AND METHODS

Study Area

The study was carried out in the three selected peri-urban communities of Batu town (8° 00`N, 38° 40`E), Central Ethiopia, 165 Km south of Addis Ababa, in the middle course of the Ethiopian Rift Valley (26,27). Abene-Girmamo is a peri-urban community with irrigated fields, situated at an altitude of 1647 meters above sea level. It is inhabited by 934 people, mainly reliant on subsistence farming(27). Bochesa village is located around lake Ziway at an altitude of 1642 m, above sea level (masl). Dodicha is another peri-urban community having a total number of 150 households(28).

Study Design and Period

A community-based cross-sectional study was conducted, from October 9th to November 3rd, 2017 among women of reproductive age in Adami Tulu District. The source population for the current study was all reproductive-age women living in Batu town while the study population consisted of all reproductive-age women living in the three peri-urban rural areas of Batu town who were eligible to participate in the study.

Inclusion and Exclusion Criteria

All sexually active women (15 - 49 years and regardless of marital status) living in the three peri-urban communities, were included in the study. Those women who were very sick, not permanent residents of the three communities and who were not able to communicate due to language barriers, were excluded.

Sample Size and Sampling Procedures

The sample size was determined using a formula for single population proportion(29) $n = (z\infty/2)^2 p*(1-p)/d2$ where **p** was a contraceptive prevalence rate of rural Ethiopia 33% (2016 EDHS) and confidence interval of 95% with a margin of error 5%, to arrive at the required sample size. Thus, the sample size was calculated to be 357: n= (1.96)2 *0.33(1-0.33)/ (0.05)2=340, plus 5% for non-response rate equals to 357.

A non-probabilistic convenience sampling method was used to select the three peri-urban communities from the total 38 administrative Kebeles (30). From each communities, the study participants were chosen, by convenience sampling method. All individuals that fulfilled the inclusion criteria within a household were, considered. When a house did not have the sample candidate, the nearest next house was selected. From each rural kebeles, 119 study subjects were, selected.

Study Variables

The independent variables were socio-demographic variables (age, religion, ethnicity, educational status, marital status, and husband's age), reproductive variables (duration of the marriage, number of pregnancies, desire for an additional child and intended pregnancy), and other variables (financial capability, knowledge, the attitude of women toward contraceptive use). Utilization of modern contraceptives was the dependent variable.

Data Collection Method and Tool

Data were collected with an interview, using a structured and pre-tested questionnaire, which was, adapted from Addis Ababa University, College of Health Sciences, School of Public Health Maternal and Child Health Questionnaire (AAU-CHS-SPH-MCHQ) (The hard copy is available in

SPH/AAU for reference). It was modified to suit the context of the study community. Native speakers (People who are known to speak both Amharic and Afan Oromo language fluently) were used to interpret the conversation based questionnaire from Amharic to Oromifa language to the respondents. The interview was conducted, in a private place based on respondents' choices.

Data Quality Assurance

The quality of the data was assured by pre-testing, on spot-checking and post proofreading. The pre-test was done on 18 women of reproductive age (5% of the total sample size) in a rural Kebele different from the actual data collection site, at Anano Shisho kebele that shares similarities in their way of living, religion distribution and financial status or capability. On the spot checking was performed in two ways, first data collection was done, in a group of two members, which increases the reliability of the collected data. And secondly, in the end, the collected data was checked for reliability, appropriateness and counted. Finally, using the SPSS software, data cleaning was done before analyzing the data. In this process, every questionnaire proofreading was done, on SPSS along with the questionnaire.

Data Analysis

After data collection, all questionnaires were checked for completeness and were coded and entered into SPSS version 21.0 software for analysis. The analysis started by describing the study population in terms of key variables using descriptive statistics and binary regression to determine the effect of different factors on the outcome variable. Confounding variables were, controlled by multivariate analysis. The degree of association between dependent and independent variables was assessed using X2-test with 95% CI.

Operational Definitions

Modern Contraceptive: - this includes female and male sterilization, pills, depot implant, male and female condoms, IUD, lactational amenorrhea method (LAM), standard day method (SDM), sympto-thermal method (STM), emergency contraception and so on.

Unintended Pregnancies: - pregnancies that are mistimed, unplanned or unwanted at the time of conception (31).

Sexually Active: - refers to having engagement in any form of sexual activity with one or more partners.

Knowledge: - it is an awareness of the existence of modern contraceptive methods, cognizance of a specific method, and mindfulness of the MC importance (Using to prevent pregnancy is one cross-cutting importance).

Positive Attitude: - future intent to use modern contraceptive is considered as a positive attitude.

Negative Attitude: - no intention to use contraceptive in the future was considered a negative attitude (excluding infertile and widowed women).

Practice: - current utilization of any modern contraceptive methods.

Very Sick: - unconscious patients and patients on bed rest after surgical procedures.

RESULTS

Demographic and Socio-Economic Characteristics

A total of 351 (6 questionnaires were excluded, due to incompleteness) sexually active women of reproductive age group (15-49 years), were interviewed from three peri-urban communities of Batu town administration. One hundred twenty (34.2%) participants were from Bochesa, and a similar number 121 (34.2%) were from Abene-Girmamo while 111 (31.6%) were from Dodicha.

Table 1: Demographic and Socio-Economic Characteristics of Study Participants

Demographic and Socio-Economic Characteristics		N (351)	% (100)
Age (in Years)	<21	74	21.1
	21-29	127	36.2
	30-39	108	30.8
	40-49	42	11.9
Marital Status	Married	326	92.9
	Un married	14	4
	Widowed	8	2.3
	Divorced	3	0.8
Educational Status	Primary Education	170	48.4
	Secondary Education	44	12.5
	Tertiary Education	2	0.6
	No Formal Education	135	38.5
Religion	Muslim	268	76.3
	Orthodox Christian	69	19.7
	Protestant Christian	14	4
Ethnicity	Oromo	265	75.5
	Amhara	6	1.7
	Selte	58	16.5
	Gurage	15	4.3
	Others	7	2
Occupational Status	Farmer	167	47.6
	Merchant	30	8.5
	House Wife	127	36.2
	Student	10	2.9
	Others	17	4.8

N: total number of study participant; %: percentage of the given characteristics

Reproductive Characteristics

Majority 330 (96%) of the participants had been pregnant in the past. The mean number of pregnancies was, 4.02 (±2.471 SD) and 196 (60%) of the participants have a desire for additional children. Among the ever (at any time) pregnant women, 247 (70.4%) reported the last pregnancy was intended. Thirty respondents were pregnant by the time of the study among which 16 reported that the current pregnancy is unintended.

Table 2: Reproductive Characteristics of Study Participants

Reproductive Characteristics		N (=351)	%
Have you ever been pregnant?	Yes	330	94
	No	21	6
Intention to be Pregnant (the last one)	Intended	247	70.4
	Not Intended	104	29.6
Need for additional kid	Yes	218	62.1
	No	133	37.9
Current Pregnancy Intention (N=30)	Intended	14	46.7
	Not Intended	16	53.3

N: total number of study participant; %: percentage of the given characteristics

Knowledge about Modern Contraceptive Methods

In this study, three parameters were used to say an individual is knowledgeable about modern contraceptive methods. The parameters were knowledge about the existence of a modern contraceptive, about the specific methods and again about the importance of contraception. A woman is knowledgeable if and only if she has knowledge about all the three variables.

From the total participants, 334 (95%) of them have heard about the existence of modern contraceptive methods, amongst those who have apprehended, 254 (76%) of them got the information from health professionals, 33 (9.9%) from family members, 25 (7.5%) from friends, 11 (3.3%) through mass media and 11 (2.1%) from other sources. And 315 (94.3%) of them knew where modern contraceptive service are provided. The majority, 195 (62%) responded to the source as a health center as shown (**Figure 1**)

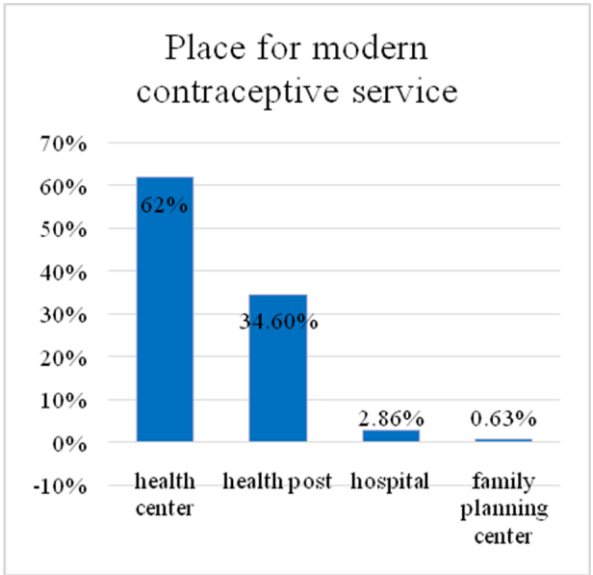

Figure 1: Knowledge of study participants about place for Modern Contraceptive Service

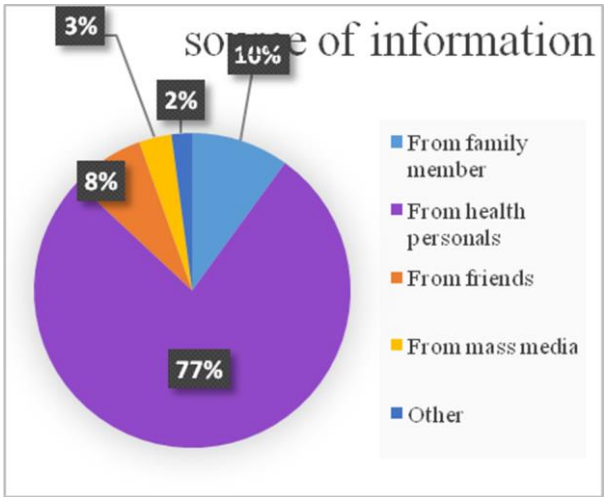

Figure 2: Study participants source of information about Modern Conraceptive Methods

Regarding knowledge of specific methods, 311 (88.6%) of the respondents knew at least one way of contraception. From the specific methods, 297 (84.6%) knew about injectable, 245 (69.8%) knew about pills, and 144 (41%) knew about an implant. The rest figure proportion is described, in **Table 3**.

Table 3: Study participants specific knowledge about modern contraceptive methods
(*multiple responses were possible)

*Specific knowledge	% (100)	N (=351)
Pills	69.8	245
Injectable	84.6	297
Implant	41.0	144
IUDs	17.7	62
LAM	10.8	38
Male Condom	8.5	30
Female Condom	0.3	1
Male Sterilization	0	0
Female Sterilization	0.6	2
Emergency Contraception	0.3	1

A total of 335 participants responded regarding the importance of modern contraceptive methods. From those who responded, 335 (95.4%) knew the importance. The majority, 225 (64%) and 193 (55%), responded that (***multiple responses were possible***) the modern contraceptive method is necessary for spacing and prevention of unwanted pregnancy, respectively. **Figure 3** shows the importance levels in percentage.

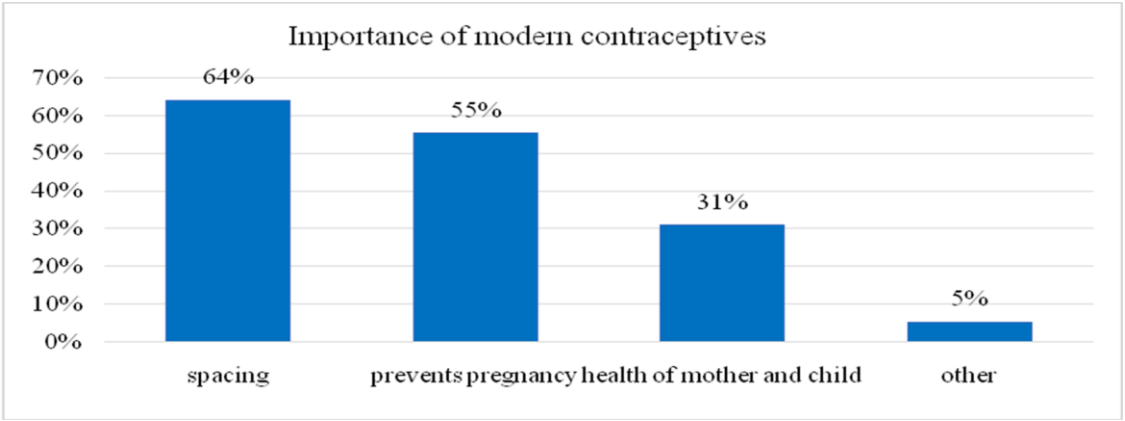

Figure 3:- Study Participants response about the importance of modern contraceptive utilization

The respondents who were considered knowledgeable in this study were 282 (84.2%). From the knowledgeable respondents, 45% of them were current users of modern contraceptive methods as shown in **Table 4**.

Table 4: Cross Tabulation of Contraceptive Knowledge and Current Contraceptive Use

Contraceptive Knowledge	Current Modern Contraceptive Use		Chi-square	DF	P-value
	Yes	No			
Know at least 1	0%	100%	29.496	3	<0.0000
Know at least 2	8.6%	91.4%			
Know all 3	45%	55%			
No knowledge	0%	100%			

DF:-*Degrees of Freedom*

Attitude towards modern contraceptive methods

From the 208 non-users, 124 (60%) of them have an intention to use a modern contraceptive method in the future, but 84 (40%) of them have no plan. Among those who have no intention to use, 42 (50%) of them chose abstinence for ideas like being a widow and divorced; 18 (21.4%) of them due to religious reason, 15 (17.9%) of them because of cultural belief, 6 (7.1%) of them due to lack of awareness and 3 (3.6%) them due to their preference to use traditional methods.

Bivariate and Multivariate Analysis

From these eight independent factors (which were significant in Bivariate analysis), the multivariate analysis produced that educational status, religious status and knowledge about contraceptive methods had a significant association with current modern contraceptive utilization as shown in **Table 5**.

Table 5: Bivariate and multivariate analysis of current contraceptive use

Variables	Are you using modern contraceptive?		Odds ratio(crude) And interval	Odds ratio Adjusted	Chi-square test	DF	P-value
	Yes	No					
Age in years					23.628	3	**<0.00**
Less than 21	8.6%	91.4%	0.344(0.085-1.386) *	0.376(0.069-2.056)			
21-29	47%	53%	3.250(1.464-7.216) *	1.048(0.287-3.828)			
30-39	39.8%	60.2%	2.426(1.056-5.572) *	1.768(0.610-5.123)			
40-49	78.6%	21.4%	1	1			
Marital status					14.6	2	**<0.01**
Married	40.7%	59.3%	17.85(2.396-133.348) *	2.105(0.128-34.667)			
Un married	3.7%	96.3%	1	1			
Educational status					24	4	**<0.00**
Primary	46.2%	53.8%	2.848(1.723-4.708) *	2.280(1.196-4.347)**			
Secondary	52.3%	47.7%	3.797(1.867-7.724) *	2.866(1.068-7.689)**			
Tertiary	0%	100%	0.000	-			
No formal education	23.1%	76.9%	1	1			
Religion					16.23	1	**<0.00**
Muslim	32.1%	67.9%	0.362(0.219-0.599) *	0.432(0.227-0.824)**			
Non-Muslim	56.6%	43.4%	1	1			
Husband age in years					11.509	3	**<0.009**
Less than 26	37.5%	62.5%	1.543(0.679-3.506)	3.393(0.756-15.232)			
26-35	52.4%	47.6%	2.829(1.391-5.750) *	2.027(0.665-6.185)			
36-45	35.6%	64.5%	1.423 (0.667-3.036)	1.030(0.545-2.556)			
Above 45	28.0%	72.0%	1	1			
No. of Pregnancy					4.584	2	**<0.10**
2 and less	43.6%	56.4%	1.778(0.987-3.202) *	1.048(0.359-3.060)			
3-5	43.1%	56.9%	1.738(0.983-3.072) *	1.181(0.545-2.556)			
Above 5	30.3%	69.7%	1	1			
Knowledge about modern contraceptive methods					29.128	1	**<0.00**
Have knowledge	45%	55%	13.654(4.161-44.817) *	11.468(2.594-50.709)**			
Don't have knowledge	5.7%	94.3%	1	1			
Duration of Marriage in years					5.652	2	**<0.05**
5 and below	37.5%	62.5%	1.093(0.636-1.877)	0.596(0.205-1.732)			
6-10	50.6%	49.4%	1.864(1.095-3.172) *	0.895(0.390-2.055)			
11 and above	35.4%	64.6%	1	1			
Desire of additional children					3.35	1	**<0.068**
Have desire	43.9%	56.1%	1.529(0.968-2.414) *	1.274(0.665-2.442)			
Have no desire	33.8%	66.2%	1	1			
Intended last pregnancy					0.415	1	**<0.519**
Intended	40.9%	59.1%	1.183(0.71-1.971)				
Non-intended	36.9%	63.1%	1				
Financial capacity to buy modern contraceptive					10.5	2	**<0.005**
Capable	41.5%	58.5%	3.902(1.588-9.589) *	2.086(0.663-6.567)			
Not capable	15.4%	84.6%	1	1			

(* significant variable on Bivariate analysis P-value less than 0.2, ** significant variable on multivariate analysis P-value less than 0.05)

DISCUSSION

The contraceptive prevalence rate of this study was 37.9%, which is slightly higher than the prevalence for the rural community, 32%, reported by 2016 EDHS(6), 31.7% in northwest Ethiopia(32), Misha district (South Ethiopia), 23.92% (difference might be due to its study population, married women only)(33), 21% in Ghana (difference might be due to the study area smallness and density)(16), 12.5% in Tanzania(34), 5.2% in Nigeria(35) and 22% of 2014 Ghana DHS(36). The possible explanation for the variation with most of the above studies might be due to the involvement of health extension workers in the awareness creation activity. These are women with a minimum of a 10th-grade education level who receive one-year training on issues such as hygiene and sanitation, disease prevention, and family health services and are then assigned to work in the community where they are from(25). As compared to the prevalence rate for the urban community, which is 50% (good awareness level and high population density might be the reasons), the CPR of this study, is lower. However, in comparison to the Oromia region, which has CPR of 28%, the three rural kebeles, had a higher prevalence rate. The most commonly used modern contraceptive methods of this study were injectables (56%) followed by the implant (25%). Similarly, injectables, 160 (38%), the primary method used in Kenya study(5), Kenya DHS (2008/09)(37), 2016 EDHS report(6) and South Ethiopia(33). In the Uganda study, condoms were the principal method of contraception used(38).

The mean age of the participants was 28.32 with SD ±7.517. Ninety-three percent of the participants were, married with a mean husband age of 36.21 and SD ±10.601. Majority of the participants' husbands, 126 (40%) were in the age group 26-35 years. About six in ten participants, 216 (62%) had formal education. Occupationally, 167 (47.6%) were farmers, followed by 127 (36.2%) housewives, 30 (8.5%) merchants, and 10 (2.8%) students. Most 265 (75.5 %) were Oromo by ethnicity, followed by 58 (16.6%) Silte, and 15 (4.3%) Gurage. Most of the participants 268 (76%) were Muslims.

The study indicated that 133 (37.9%) of respondents are currently using any modern contraceptives. Among the users, 81 (60.9%) used injectable, 36 (27%) used implant, 8 (6%) used pills, 5 (3.8%) used LAM, 2 (1.5%) used IUD, and 1 (0.8%) used female sterilization. From the total participants, 191 (54.4%) have ever used at least one form of the modern contraceptive method and 104 (54.4%) of them have ever discontinued their recent (last used) contraceptive method. Most individuals, 66 (63.5%) discontinued to have a child; 24 (23%) of them discontinued due to the side effect and the other 14(13.5%) for other personal reasons. 115 (60%) respondents had an informed choice about the potential side effects of the methods they use, but 76 (40%) of them reported no counseling on the side effects.

The bivariate analysis identified eight significant determinant factors that were associated with current contraceptive utilization. These were a participant's age, husband's age, educational status, religious status, knowledge about contraception, marital status, duration of the marriage, and financial capacity to buy modern contraceptive methods.

As compared to unmarried women, married women were 17 times more likely to use a modern contraceptive method. Women in the age group 21-29 years and 30-39 years were three times and two times more likely to utilize the modern contraceptive method, respectively. Among the participants who have a husband in the age group, 26-35 years were three times more likely to use modern contraception than those whose husbands are in the age group above 45 years. Those women who were married for 6-10 years were twice more likely to utilize than those who have been married, beyond 10 years. In comparison to non-Muslims, Muslim participants were less likely to use modern contraceptive methods. Participants who have primary and secondary education were three times and four times more likely to utilize than those with no formal education respectively.

Individuals who have information about modern contraceptive method are 14 times more likely to use than women without knowledge. Having the financial capability to buy modern contraceptive method makes an individual four times more likely to utilize it.

Cognizant of the fact that, more than a third of the respondents 131 were in the age group 21-29 years and 42 (12%) were between the age group 40-49 years, and majority (93.7%) of them had been pregnant in the past, it is plausible to consider the study participants as if they were at a young age at first pregnancy. And WHO consider first pregnancy at an early age as a risky one and they account for 23% of the overall burden of disease (in terms of disability-adjusted life years) due to pregnancy and childbirth among women of all ages(39). The possible reasons for having few women of reproductive age who have never been pregnant (6%) might be correlated with the town being a rural area, whereby family size limiting is not practiced usually due to different reasons which, can be understood from the mean number of pregnancies; 4.02 (±2.471 SD), cultural beliefs and religious taboos, which considers childbirth as a blessing(40).

EDHS reports that knowledge about contraceptives is universal in Ethiopia, with 99% of the population knowing at least one method but there still exists difference by regions(6). In the current study, 88.6% of the participants had an awareness of a specific method of contraception. According to EDHS 2016, 98.5% of the rural community have heard about the existence of a modern contraceptive method, but in this study, only 95% of the participants have ever heard about modern contraceptives. In other studies, 97.2% was knowledgeable in South Ethiopia study(33), 98% in Ghana(16) and 97.9% in Tanzania(13). These results indicate the presence of an information gap about the existence of modern contraceptive methods.

Knowledge about the modern contraceptive method is among the enhancing factor for current utilization. In this study, those who were knowledgeable were 11 times more likely to utilize than those who were not considered knowledgeable. In addition to this, the educational status of individuals does affect the possibility of modern contraceptive method utilization. Those who had a primary and secondary level of education were twice and three times more likely to use one form of a modern contraceptive means than those with no formal training. This association between education and contraceptive utilization is similar to what EDHS reported in 2016 (Table 3). Despite the difference in the level of education, 98.8% had knowledge of family planning in a study done in Kenya(6) and Zambia(41). These results might indicate the effectiveness of health extension workers employed in these specific areas.

The barriers to effective use of contraception, have been well documented. Among these barriers are personal beliefs and values that can be shaped by both culture and religion(42). In the current study, Muslim participants were less likely to utilize modern contraceptive method than the non-Muslims were. This result conforms to the research finding which,

was conducted in Merawi town, Ethiopia(19) and South-Western Nigeria(43). On the contrary, religion was not a determinant factor that affects modern contraceptives utilization in Misha District, South Ethiopia(33). Even though a 2011 report by Guttmacher Institute indicates that proportions of married women who are pregnant or desiring pregnancy do not differ by religious affiliation(44), the inconsistency may be associated with religion variations of the area.

"Muslim opinion regarding the further classification of contraception ranges from permissible to disapprove. When contraception justification is provided, such as health, social, or economic indications, coitus interruptus becomes recommended. Through comparable reasoning, authorities permit modern methods of contraception as lawful, given that they are temporary, safe, and legal. Any device, that does not induce abortion and is reversible may be used. Irreversible sterilization methods are not permitted. Contraception may be used only within marriage(42)."

Religion and ethnicity are critical sociocultural dimensions that have for long been considered as, having significant impacts on attitudes towards and the uptake of contraceptive methods. (45). People's attitudes towards FP are necessary as they could promote the acceptability of contraceptives, especially in areas with high fertility and low uptake of FP methods(46). Those who perceive FP to be of benefit to their well-being are more likely to use contraceptive methods. In various contexts, FP services are available but are not socially accepted, as a result of sociocultural influences that hinder uptake. This condition ultimately has an impact on the successful implementation of FP programs. The effects of religion on sexual activity and contraceptive use, have been demonstrated in various studies(47,48)

As part of the data collection tool, husband age was included in the study expecting to associate the age of the husband with contraceptive utilization. Unfortunately, the variable was not significant during multivariate result analysis and we couldn't able to associate it as a determinant factor for contraception use. As a matter of fact, the assumption was to say those younger (in age) husbands will have a better understanding and will help their wife to use contraception methods considering the fact that, the awareness level of the younger generation is high through the social media, school and generally technology-based.

In Ethiopia, the most determining factor for married women on contraceptive usage is not the perception of the husband but the wife's perception of her husband's approval of family planning. For so many decades including now, in a married women life, the husband is the decision maker and usually, the wife uses contraceptive without telling him about it(49,50). This act of single-parent based contraceptive use (SPD-CU) is endangered of discontinuation and its sustainability is dependent on how far she can conceal the commodities. Having this in mind, it would be very effective if family programs involved both the husband and wife in the awareness creation activity. Teaching the wife about the advantage of contraceptives and how to use it is 50% job done. Because the husband plays a crucial role in supporting her to feel free to use it without shame and fear making it double effort on contraception use(50).

Last but not least, community awareness and uptake of modern contraceptives can be increased by using different techniques. A study by *Kabir* and *Amin* 1995 indicates that involvement with NGO results in higher contraceptive use(51). The current study prevalence rate might be the result of NGO involvement in rural Ethiopia. Apart from its accessibility, the impact of advertisement on different media network is necessary(52). The Ethiopian Ministry of Health and other family planning organization in Ethiopia (NGOs) should give emphasis and get coverage on television and radio (especially for rural areas) programs. In addition to that, awareness festivals and events should be conducted involving married one and sexually active women. Moreover, a school and institution-based awareness creation should continue. Finally, our homework to reach the overall goal of HSTP for 2020, which is a CPR of 55% for base case targets is coming to an end and there are a lot of works to be done.

CONCLUSION

The contraceptive prevalence rate of this study was higher than the national report for the rural community. One hundred thirty-three (37.9%) and 218 (62.1%) were users and non-users of modern contraceptive method, respectively. The most commonly used methods were injectables and implant.

The enhancing factors for utilization were knowledge about modern contraceptive methods and formal education. Muslim contraceptive users were less than Christians were. The limiting factors for modern contraceptive use were religious and cultural beliefs and the choice to abstain.

The major source of information regarding modern contraceptive methods emanated from health professionals. The majority of the respondents knew that modern contraceptive methods prevent unwanted pregnancy, and help in child spacing. Almost all the respondents considered public health organization as a place of service delivery and health centers were the most commonly known places for providing modern contraceptive methods.

Recommendations

We recommend that both governmental and non-governmental organizations continue the good work of building community awareness of modern contraceptive methods. In addition to that, religious leaders, especially in the Muslim community, need to be involved in the awareness creation. Finally, education should not only be given to women but it must also be provided to men.

Abbreviations

WHO: World Health Organization; IUDs: Intrauterine Devices; CPR: Contraception Prevalence Rate; LAM: Lactational Amenorrhea Method.

Data Availability

The data used to support the findings of this study are available from the corresponding author upon request.

Ethical Approval

Ethical clearance was obtained from the Ethical Review Committee of School of Public Health, Addis Ababa.

Consent

Participants consent was taken to publish this work. The respondents were informed about the purpose of the study and their verbal and written consent to participate was obtained.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

Authors' Contributions

Alfoalem Araba Abiye, Bethel Fekede, and Assefa Seme had participated in concept development, questionnaire design, a write-up of the final research, and manuscript preparation and finalization. The rest of the author's contributed to data analysis and interpretation and write-up of the final research.

Acknowledgments

The authors are very grateful to the study participants for their cooperation in the data collection process and Addis Ababa University for granting the opportunity.

Funding

The authors received no specific funding for this study.

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