

The Knowledge, Attitude and Practice of Long Acting Contraceptive Methods among Reproductive Age Women of Kometa, Mizan Aman town, Southwest Ethiopia

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Abstract

Background: The Ethiopian population with an estimated current population of over 77.4 million people is the second most populous country in Africa next to Nigeria. The population is growing at a rate of 2.7 percent annually. All modern methods which provide a wide range of protection from durations of as short as days (pills, injectables, condoms and other barrier methods) to permanent protection such as voluntary surgical sterilization, implants, intra uterine device, are available in Ethiopia. However, utilization is limited more to the shorter-term methods such as pills and injectables.

Objective: the study aims to assess the knowledge, attitude and practice of LACMs among child-bearing age women visiting Shanan Gibe hospital, Jimma town, southwest Ethiopia.

Methods: A Cross-sectional study was conducted. To obtain a representative sample, systematic random sampling technique was used based on list of the house numbers of the kebele. Data was collected using questionnaire based interview to assess socioeconomic status, and the knowledge, attitude and practice towards LARCMs.

Results, conclusion and recommendations: Among the 359 reproductive age women studied, only 205 (57.1%) know LARCMs while the remaining 154 (42.9%) do not know them. Generally, the knowledge, attitude and practice of the respondents were found to be poor but generally comparable with literatures. This may be due to inadequate health education provision to the clients during their visits to the health care workers and comprehensive health education on the merits and demerits of different alternatives of family planning should be provided to the clients during their visits to the health care facilities. The rate of use of LARCMs which was 115 (56.1%) among the 205 respondents who know LARCMs. The responsible health care workers should be committed in creating awareness about LARCMs and health education, appropriate medical treatment and counseling services should be consistently provided to the clients.

Keywords: Knowledge; Attitude; Practice; Contraceptives; Mizan

Abbreviations: CPR: Contraceptive Prevalence Rate; FP: Family Planning; IUD: Intrauterine Devices; LAPM: Long Acting and Permanent Contraceptive Methods; LARCM: Long-Acting Reversible Contraceptive Methods; MOH: Ministry of Health; PID: Pelvic Inflammatory Disease; SNNP: Southern Nations, Nationalities and Peoples; TFR: Total Fertility Rate; USA: United States of America.

Introduction

An estimated 358,000 maternal deaths occurred worldwide in 2008, a 34% decline from the levels of 1990. Despite this decline, developing countries continued to account for 99% (355,000) of the deaths [1]. Sub-Saharan Africa and South Asia accounted for 87% (313,000) of global maternal deaths. 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 [2].

Ethiopia is one of the countries with the highest maternal mortality, which is estimated at 670 per 100,000 live births which is more than one in five deaths to women age 15-49 [3]. The major causes of maternal mortality and suffering are unsafe abortion, obstructed labor, sepsis, hemorrhage, pregnancy induced hypertension and others [4]. With an estimated current population of over 77.4 million people which is the second most populous country in Africa next to Nigeria. The population is growing at a rate of 2.7 percent annually [5].

Four contraceptive methods are categorized as Long Acting and Permanent Contraceptive Methods (LAPM). These are: Intrauterine Devices (IUDs), implants, female sterilization, and vasectomy. IUDs and implants are long-acting temporary methods; when removed, return to fertility is prompt. Copper-containing IUDs, the ones generally available in African family planning programs, are effective for at least 12 years, although they are labeled for 10 years. It has some side effects: increased risk of PID, pain, perforation and bleeding. Implants, depending on the type, last for up to three to seven years with disadvantages of spotting, dizziness, weight gain and so on. Female sterilization, or tubal ligation, and vasectomy are permanent methods that need couples' commitment and decision because that may end with divorce [6].

Contraceptive prevalence in the country is very low with only 15% of

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married women using any type of contraception and almost all of these users are using modern methods. The most widely used method are injectable (10 percent) followed by the pill (3 percent) and the unmet need for spacing is 22 percent, while the unmet need for limiting is 14 percent. Thus, the total unmet need is 36 percent [3]. This in turn will eventually lead to large numbers of unwanted pregnancies every year. At the current rate, the population size will double within 23 years [7].

Only 6 percent of births were delivered with the assistance of a trained health professional, the total fertility rate for Ethiopia is 5.4 births per woman. The TFR in the rural areas is 6.0, two and half times higher than the TFR in the urban areas. Delivery of family planning services is one of the most important strategies for reducing maternal morbidity and mortality worldwide [8].

Contraceptive method mix usage differs from program to program and region to region based on the availability of the methods, affordability of the services and other barriers such as socio-cultural factors [9]. Generally, contraceptive users in Africa rely on shorter-term methods such as pills, while the usage of long methods is more common in Asia and Latin America [10-14].

All modern methods which provide a wide range of protection from durations of as short as days (pills, injectables, condoms and other barrier methods) to permanent protection such as voluntary surgical sterilization, implants, intra uterine device, are available in Ethiopia. However, utilization is limited more to the shorter-term methods such as pills and injectables. The majority of Ethiopian women (78 percent) and men (76 percent) prefer to space or limit the number of children they have, and have a potential need for family planning. Currently, only 31 percent of the demand for family planning is being met [3,15-17].

A number of factors could contribute to the lack of availability and access to LARCMs. Evidences show from other countries and within Ethiopia showed that many factors including fertility related reason, opposition to use, lack of knowledge, method related reason could act as barriers to LARCPs use [18]. Higher cost to individuals or the Ministry of Health (MOH); lack of trained providers and wide availability of short acting methods in the rural areas where most people live and distance to clinics and medical barriers inhibit access [19].

Methods

Study area and period

The study was conducted in Kometa kebele Aman sub-city, Mizan Aman city administration, SNNPR, south western Ethiopia from May 25-31, 2014. Mizan Aman is the largest town and the administrative center of the Bench Maji zone of the SNNPR and located 561kms southwest of the capital Addis Ababa. One general hospital and one health center are found in the town [20].

Study design

A descriptive cross-sectional study design was employed.

Populations

Source population: The source population for this study is all reproductive age females of Kometa kebele, Mizan-Aman town, south western Ethiopia.

Study population: All reproductive age females of Kometa kebele, Mizan-Aman town who are to be selected according to systematic random sampling technique.

Eligibility criteria

Inclusion criteria: Those who are in reproductive age group (15-49 years). Those who are able to respond to the interview (able to hear and/or speak).

Exclusion criteria: Those women whose age are <15 & >49 years. Women from another area. Those who are not able to respond to the interview (Dumb or deaf).

Sampling technique

To obtain a representative sample systematic random sampling technique was employed.

Sample size

The minimum required sample size is calculated using with 5% margin of error, 95% confidence level.

$$N = \frac{(Z\alpha/2)^2 p(1-p)}{d^2} = \frac{1.96^2 * (0.5(1-0.5))}{(0.05)^2} = 384$$

Where, n-Sample size required.

p-Estimate of prevalence rate.

d-Margin of sampling error tolerated.

Z-The standard normal value at CI of 95% which is 1.96.

As p=0.5 because the KAP of the women is not yet known as there are no previous study in the area.

But, as the source population is only 3157, we use the correction formula of population <10,000 as follows:

$$N_c = \frac{n}{1+n/N} = \frac{384}{1+384/3157} = 359$$

N-Source population.

n-Sample according to cross-sectional survey.

Nc-Sample according to correction formulae.

Data collection method

Data was collected using semi-structured Questionnaire with two sections. The first section included questions on to assess the socioeconomic status of the respondents and the second section consisted of questions to evaluate the knowledge, attitude and practice towards LARCMs of the participants. The confidentiality and anonymity of the study was confirmed. The data was collected in the mornings and at noon because the women are working outside during the other times in the area. At the end of data collection, the questionnaires were gathered and re-checked for completeness by the investigators.

Data collection instrument

Semi-structured questionnaire and face to face interview was be used.

Pre test: Before undertaking the data collection, the instrument was pre tested by taking 5% of eligible for the feasibility of the questionnaires. Later, the questionnaire was adjusted accordingly. The pre-tested data was not included in the main data.

Data quality control: To ensure the consistence of data collection tool the questionnaire was translated to Amharic language during

interview. Interviewers are going to be trained, demonstrated and practice the data collection technique. Guideline would be prepared that could guide the data collectors and this material was handed with brief explanation during the training sessions. The data collectors handled the data collection instruments. At the end of each day, the principal investigator checked the completeness of the questionnaires, and if there is any missing or other problem found, immediate correction was made.

Data analysis

The data was analyzed using SPSS version 16.0 and results are presented in tables, figures, numbers and percentages.

Study variables

Dependent variables: Knowledge, attitude and practice of LARCMs

Independent variables: Age (in years).Religion.Ethnicity.Occupation. Educational level.Marital status. Monthly income (in birr).

Ethical consideration

This study was approved by Institutional review board of Mizan Tepi University. Informed consent was obtained from all the participants after the explanation of the objectives and significance of the study.

Results

This one-week cross-sectional study involved a total of 359 reproductive age women from Kometa kebele, Mizan Aman town, southwest Ethiopia. Among the respondents, the major ethnic groups were Kaffa accounting for 114 (31.9%) followed by Bench 90 (25.0%). The educational levels of the respondents included Elementary among 189 (52.65%) of them followed by the illiterates 95 (26.4%) while only 65 (18.1%) and 10 (2.8%) of had secondary and higher education respectively Table 1.

The majority of the respondents reported monthly income of less than 1000 birr followed by 1000-2000 Figure 1.

Among the respondents 170 (47.35%) aged 15-24 years followed by those aged 25-34 years accounting for 84 (23.4%) of them while the others 74 (20.6%) aged 35-44 and the remaining 31 (8.6%) were 45-49 years of age Figure 2.

Out of 359 respondents, 205 (57.1%) were familiar with some information particularly on LARCMs while the remaining 154 (42.9%) did not know about them. Similarly, out of the 205 respondents who had some information on LARCMs, 145 (70.73%) think that these methods are safer than COC. Regarding the sources of the information on LARCMs, 105 (43%) of the respondents mentioned media followed by from their friends among 85 (41.47%) Table 2.

Among the 205 respondents with some information on LARCMs, 40 (19.51%) are afraid of removal of implant or IUCD. Similarly, 135 (65.85%) of them think that LARCMs can cause some health problems. On the other hand, 160 (78.04%) of them think that the use of LARCMs is religiously and culturally acceptable while the remaining 45 (21.6%) consider it religiously or culturally unacceptable Table 3.

Out of the 205 respondents who know something about LARCMs, only 115 (56.1%) of them had ever used at least one type of LARCMs. Among these 115 patients, 105 (51.21%) have used implant whereas 40 (19.51%) of them have used IUCD. Among these 115 patients who used LARCMs, 65 (56.52%) experienced at least one unwanted effect.

Variable	Categories	Count	Percent (%)
Ethnicity of respondents	Kaffa	114	31.9
	Bench	90	25.0
	Sheko	45	12.5
	Meinit	30	8.3
	Oromo	40	11.1
	Amhara	40	11.1
Religion of respondents	Orthodox	145	40.3
	Protestant	109	30.6
	Muslim	100	27.8
	Others	5	1.4
Marital status of respondents	Married	280	77.99
	Divorced	35	9.7
	Single	24	6.69
	Widowed	20	5.6
Occupation of respondents	Self employed	55	15.3
	Merchant	60	16.7
	Gov. employee	35	9.7
	Non-Gov. employee	15	4.2
	Housewife	190	52.8
	Others	4	1.12
Educational level of respondents	Illiterate	95	26.4
	Elementary	189	52.65
	Secondary	65	18.1
	higher education	10	2.8

Table 1: The socio-demographic characteristics of reproductive age women of Kometa kebele, Mizan Aman town, South-West Ethiopia, from May 25-31, 2014.

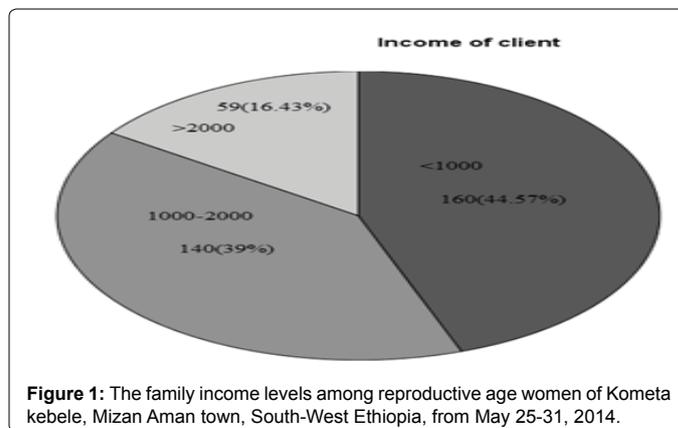


Figure 1: The family income levels among reproductive age women of Kometa kebele, Mizan Aman town, South-West Ethiopia, from May 25-31, 2014.

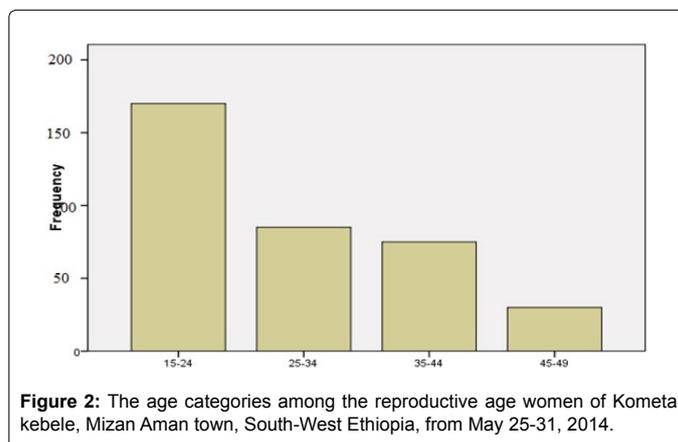


Figure 2: The age categories among the reproductive age women of Kometa kebele, Mizan Aman town, South-West Ethiopia, from May 25-31, 2014.

Variable	Response	Frequency	Percent (%)
Do you know reversible contraceptive methods working for >3 years?	Yes	205	57.1
	No	154	42.9
	Total	359	100
Do you think these methods are safer than COC?	Yes	145	70.73
	No	60	29.27
	Total	205	100
Are the contraceptive effects of LARCMs reversible?	Yes	115	56
	No	90	44
	Total	205	100
Can LARCMs prevent transmission of STI?	Yes	40	19.6
	No	165	80.4
	Total	205	100
What unwanted effects of LARCMs you know?	Amenorrhoea	120	58.5
	Irregularity of menses	60	29.27
	Weight gain	55	26.82
Source of knowledge on LARCMs	Media	105	43
	Friend	85	41.47
	Health professional	30	14.63

Table 2: The knowledge on LARCMs of reproductive age women of Kometa kebele, Mizan Aman town, South-West Ethiopia, from May 25-31, 2014.

Variable	Response category	Frequency	Percent (%)
Are you afraid of the removal of implant or IUCD?	Yes	40	19.51
	No	165	80.49
	Total	205	100
Can LARCMs cause any health problem?	Yes	135	65.85
	No	70	34.15
	Total	205	100
Are LARCMs acceptable religiously & culturally?	Yes	160	78.04
	No	45	21.6
	Total	205	100
What do you prefer if itching/pain at insertion site occurs?	Consulting health worker	100	48.78
	Self-medication	70	34.14
	Using traditional medicine	35	17
	Total	205	100

Table 3: The attitude on LARCMs of reproductive age women of Kometa kebele, Mizan Aman town, South-West Ethiopia, from May 25-31, 2014.

Among these irregularity of menses was reported by 50 (43.48%) of the respondents followed by amenorrhoea and weight gain which were reported by 35 (30.44%) and 20 (17.39%) of them respectively Table 4.

Discussion

This one-week cross-sectional study involved a total of 359 respondents and attempt has been made to assess knowledge, attitude and practice of long acting reversible contraceptive methods among reproductive age women in Kometa kebele, Mizan Aman town, south west Ethiopia. In this study, more than half 190 (52.8%) of the 359 respondents were housewives and most of them have just an elementary education among 189 (52.65%) or are illiterates 95 (26.4%). This might have contributed to the low rate of familiarity with LARCMs which was only 205 (57.1%) of the 359 respondents. This is comparable with the study in Mekele where 51.9% of the respondents knew IUCD and 52.1% of them knew implant.

Among these 205 respondents who know LARCMs, 145 (70.73%) think that these methods are safer than COC while the remaining 60 (29.27%) of them do not know this.

Similarly, only 115 (56%) of the 205 respondents who have some

information on LARCMs know that the contraceptive effects of LARCMs are reversible while the remaining 90 (44%) think the effects may be irreversible. This problem of negative attitudes on the use of LARCMs is comparable with the study in Mekele where it was overall 53.6%. This may be due to inadequate health education provision to the clients during their visits to the health care workers and comprehensive health education on the merits and demerits of different alternatives of family planning should be provided to the clients during their visits to the health care facilities.

Accordingly, the commutative sum of these low knowledge level of the respondents and the fact that most of the respondents have lower educational level and are mainly housewives and the low incomes and poor access to media as well as their negative attitudes towards the use of LARCMs including cultural and religious types might have limited the use of LARCMs which was used by 115 (56.1%) even among the 205 respondents who have some familiarity about them. Moreover, as only 120 (58.5%) of them know amenorrhoea, 60 (29.27%) of them know irregularity of menses and 55 (26.82%) of them know weight gain among the unwanted effects of LARCMs, the occurrences of one or more of these adverse effects might make the clients not to use in future.

Additionally, 70 (34.14%) and 35 (17%) of them preferred self-

Variables	Response categories	Frequency	Percent (%)
Have you ever used any of LARCMs?	Yes	115	56.1
	No	90	43.9
	Total	205	100
Have you ever used IUCD?	Yes	40	19.51
	No	165	80.49
Have you ever used implant?	Yes	105	51.21
	No	100	48.79
	Total	205	100
Have you ever experienced unwanted effects of LARCMs?	Yes	65	56.52
	No	50	43.48
	Total	115	100
What unwanted effects of LARCMs have you ever experienced?	Amenorrhea	35	30.44
	Irregularity of menses	50	43.48
	Weight gain	20	17.39
What did you do when you experienced unwanted effects of LARCMs?	Consulting health worker	55	84.62
	Self-medication	7	10.77
	Using traditional medicine	3	4.61
	Total	65	100

Table 4: The practice on LARCMs of reproductive age women of Kometa kebele, Mizan Aman town, South-West Ethiopia, from May 25-31, 2014.

medication and using traditional medicine respectively when unwanted effects are incurred implying poor counseling during the health facility visits. To solve this problem, the unwanted effects of the individual methods should be initially thoroughly discussed with the clients before decisions are reached including what should be done if these effects are incurred. The fact that most of the respondents mainly depended on media among 105 (43%) and on friends among 85 (41.47%) shows that the contribution of health care workers on creating awareness about LARCMs is too low and should be improved by the very commitment of the individual units concerned.

Moreover, 40 (19.6%) of the 205 respondents who know LARCMs think that LARCMs have some protection against STIs. This is, particularly, detrimental as this might lead to risky practices of using these family planning methods to prevent STIs while these are actually ineffective.

Out of the 205 respondents who know LARCMs, 115 (56.1%) of them had ever used at least one type of LARCMs; 105 (51.21%) have used implant whereas 40(19.51%) of them have used IUCD and 30 (26.1%) have used both the types as they shifted to IUCD after using implant. Among the total of 359 respondents, 105 (29.25%) used implants and 30 (11.14%) used IUCD. This is much lower than a preliminary study called CHOOSE project that involved 5,086 participants where 70% clients preferred LARCMs and a study in Cape town, South Africa where 86% of women (n=206/240) preferred IUCD use following an IUCD information session. On the other hand, in US only 4.5% of the clients used LARCMs. The use rate of LARCMs was only 0.5% in Guinea. Similarly, the use of LARCMs was higher in this study compared with a study in Mekele where only 12.3% of the clients used these products. This should be further encouraged because the use of these products are more effective and are generally safe.

Among these 115 patients who used LARCMs, 65 (56.52%) experienced at least one unwanted effect. Among these, irregularity of menses was reported by 50 (43.48%) of the respondents followed by amenorrhea and weight gain which were reported by 35 (30.44%) and 20 (17.39%) of them respectively. Among the 65 respondents who experienced unwanted effects from LARCMs, the majority 55 (84.62%) of them preferred to visit the health care worker whereas the remaining

preferred self-medication or traditional medicine which is not usually recommended. The poor practices on the use of LARCMs may be attributed to the poor knowledge and attitudes on these agents due to the aforementioned reasons.

Conclusions

Over half of the participants had some familiarity with LARCMs. Generally, the knowledge, attitude and practice of the respondents were found to be poor but generally comparable with literatures. This may be due to inadequate health education provision to the clients during their visits to the health care workers and comprehensive health education on the merits and demerits of different alternatives of family planning should be provided to the clients during their visits to the health care facilities.

Accordingly, the poor knowledge and negative attitudes about the benefits of LARCMs and the low literacy level of the participants limited the rate of use of these agents.

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