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Factors Associated with Contraceptive Discontinuation in Agarfa District, Bale Zone, South East Ethiopia

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Abstract

Background: Contraceptive discontinuation for reasons other than the desire for pregnancy is a public health concern because of its association with negative reproductive health outcomes. Discontinuation rate is increasing with a remarkable figure in Ethiopia. But reasons for discontinuing the method were not well addressed in different studies within the country. The study was conducted to assess magnitude and factors contributing to discontinuation of modern contraceptive methods among currently married women in Agarfa district.

Method: A community based quantitative cross-sectional study supplemented by qualitative method was conducted in Agarfa district. A total of 788 currently married women aged 15-49 years were involved in the survey. They were selected through systematic random sampling technique. The data was collected by using structured interviewer administered questionnaire, and analyzed by using SPSS version 21. Multivariate analysis was computed to identify the independent predictors of contraceptive method discontinuations. In-depth interview was conducted for the qualitative part of the study.Thematic analysis was used to analyze the qualitative data.

Result: The magnitude of discontinuation of modern contraceptive was 25.5%. The highest discontinuation rate was for injectables. The main reasons for the discontinuation were to get pregnancy and fear of side effects. The principal factors which were found positively associated with MC discontinuation were presence of TV in home, method failure, and participants' perception that MC can harm the womb. Whereas, increased family size, joint decision on using FP by couples, and participants' perceptions that their partner supports FP use and FP is beneficial to the family financially were found positively associated with continuing MC utilization.

Conclusion: The magnitude of MC discontinuation for all methods is still high. FP providers should improve quality of counseling on all of the FP methods, address misconceptions and fears that exist about modern contraceptives and highlight the benefits of FP during FP counseling.

Keywords: Contraceptive Discontinuation; Bale Zone; Oromia; Ethiopia

Abbreviations:

FP: Family Planning; WHO: World Health Organization; TFR: Total Fertility Rate; CPR: Contraceptive Prevalence Rate; EDHS: Ethiopian Demographic Health Survey; HH: Household; IDI: In-Depth Interviews; MC: Modern Contraceptives

Introduction

One of the major problems of developing countries confront with is increasing growth of population which in fact is a serious threat for the global community. Using family planning (FP) consistently and effectively is the main determinant factors of population growth. Nowadays, FP services and its information is assumed as one of the fundamental human rights [1]. The World Health Organization (WHO) estimated that 210 million women get pregnant each year and that about two-thirds, deliver live infants globally. The remaining one-third of pregnancies ends in still births, miscarriages and induced abortions [2]. Family planning reduces the number of unintended and unwanted pregnancies and thereby saving women from high risk pregnancies and unsafe abortions. Most of the unintended pregnancies occur when using contraceptive methods are discontinued or be used non-continuously or inappropriately. Despite persistent advocacy urging the use of modern contraceptive methods for FP, the fertility rates in most Sub-Saharan African countries still remains unacceptably high, mostly due to poor uptake of contraception because of cultural, Economical, socio-demographic and political barriers [3].

In Ethiopian context the total wanted fertility rate is 3.0 but the actual total fertility rate (TFR) is 4.8 children per woman. The TFR in rural areas exceeds the TFR in urban areas by almost three children per woman (5.5 and 2.6 children per woman, respectively). The TFR of Oromia region is 5.6 children per woman, and 30% of the currently married women have an unmet need for contraception which represents the highest figure of all regions in Ethiopia [4]. In the past few years, Ethiopian Ministry of Health have planned to increase the contraceptive prevalence rate from 33% to 66% by 2015. In order to

achieve this target, the Ministry has given priority to the provision of FP [5].

Dynamics of contraceptive use; continuation, switching and failure are important markers of how well programmes are meeting the FP needs of women and couples. Studying the dynamics of contraceptive use can reveal problems in the use of contraceptive technologies and the gaps in the provision of services and, therefore, provide guidance essential for improving services is very important. Discontinuation of use that is not followed by prompt recourse to an alternative method carries the possible implication that the range of readily accessible methods may need to be widened. High discontinuation rates due to perceived or real side-effects require that counselling services, informed choice and method mix [6].

Numerous clinical studies have been conducted but population based studies of contraceptive discontinuation and its determinants are much less common especially in developing country. Within two years of starting an episode of use, almost half of the users have discontinued in Egypt, Indonesia, and Zimbabwe. In Bangladesh, Colombia, and Peru, approximately two thirds discontinue within two years [7].

When a couple discontinues using FP, even for a brief period, the woman may become pregnant unintentionally. Similarly, when a woman wants to limit or space births but is not using contraception, she runs the risk of becoming pregnant unintentionally. In both situations, these unintended pregnancies often lead to larger than intended family sizes and contribute to higher rates of overall fertility [8]. In many Sub-Saharan countries where the contraceptive prevalence rate (CPR) has historically been very low and has only recently begun to rise, encouraging contraceptive continuation has been less of a priority than encouraging new adopters. However, the influence of contraceptive discontinuation on fertility will increase as the CPR increases and fertility falls [9]. Family planning programs can have only limited impact on fertility reduction if contraceptive discontinuation rate is high [10].

Injectable users approximately 32% in both Ethiopia and Malawi discontinue by the end of the first year [11]. Ten percent of users discontinued to become pregnant and 12% switched to other methods. The discontinuation rate is highest among pill users (61%) and lowest among users of injectables (32%). The desire to become pregnant is the most prominent reason for contraceptive discontinuation (30%), followed by health concerns (26%) [12]. According to Ethiopian demographic health survey (EDHS) 2011 the 12 month contraceptive discontinuation rate for all methods is 37%. Among methods, the highest discontinuation rate is for the pill (70%), followed by the male condom (62%). In contrast, implants have a discontinuation rate of just 5% (4). As we can see from these findings the rate of discontinuation is clearly increasing but the reasons for discontinuations were not adequately addressed in these two national surveys. Therefore, this study was conducted in Agarfa district, Bale Zone, Oromia Region that will help policy makers and program officers to decide on women's reproductive health services specifically on family planning.

Methods

A community based quantitative cross sectional study complemented by qualitative method was conducted from March to May 2014 in Agarfa district, which is found in Bale Zone, Oromia National Regional State. Agarfa district has a total of 104,412 populations (53,276 males and 51,136 females) [13].

The study subjects were all women on marriage aged 15-49 years with history of modern contraceptive use found in the selected Kebeles (smallest administrative unit) of Agarfa district. Those eligible women who were severely ill or unable to respond for the questionnaire were excluded from the study. Women participated for quantitative interview were excluded from the in-depth interview. The required sample size was calculated using the formula of estimating a single population proportion taking 37% proportion (P) of contraceptive discontinuation rate at national level (4), 5% margin of error, design effect of two, and 95% confidence level. This was found 716 and adding a 10% allowance for a non-response rate, the total sample size was 788.

In the first step the district was divided into 21 kebeles. Out of these, 10 kebeles were selected using simple random sampling then the sample was proportionally allocated to the size of the kebeles. After calculating the sampling interval (K value), the households (HH) with currently married women who have history of modern contraceptive use was selected by systematic random sampling technique. When there was no eligible woman in the selected HH, the next HH was selected for interview. When two or more eligible women were present in one household, only one woman was considered by lottery method. Participants for the in-depth interview were selected purposively. Ten in-depth interviews (IDI) with women who had history of contraceptive discontinuation were conducted. Saturation of information was used to decide on adequacy of the samples for IDI.

Questionnaire was prepared first in English then translated to local language (Oromifa) for data collection by language expert. To insure consistency of the translation with the English version; the questionnaire was translated back to English by another language expert. Before the actual data collection, the questionnaire was pre-tested on 5% (39 women) of the sample size in the same district from those kebeles not included in sample. Based on the pre-test, the time needed for the completion of interview was estimated, questions were revised, edited, and those found to be unclear or confusing were modified. Data was collected using structured and pretested interviewer administered Oromifa version questionnaire. Ten Oromifa speakers who had a minimum 12th grade completed collected the data. Two Bachelor degree holders supervised the data collectors. Data collectors and supervisors were trained for one day on the study instrument and interviewing techniques. The interview was conducted in a place where the woman feels free to express her feelings and ideas. Moreover, in occasions where the sampled women are not accessed for absence, up to three visits was considered for interview to minimize the non-response rate. Daily close supervision and spot checks of filled-in questionnaires were made by the field supervisors and investigator deployed with the data collectors. At the end of every data collection days, meetings were held among data collectors, supervisors and the investigators to discuss practical problems and issues of major concern. Open ended discussion guides was used for the IDI. The in-depth interviews were undertaken by the principal investigators. The IDIs were tape recorded and note was taken.

Data were first entered to Epi-Info version 3.5.1 and cleaned. Then data were exported to Statistical Package for Social Sciences (SPSS) version 21 for analysis. First descriptive analyses were carried out for each of the variables. Second, bi-variate analyses were done for the independent variables with the outcome variable to select candidate variables for the multivariable analyses. For the association and their

statistical significance, Odds Ratio (OR) and 95% confidence interval (CI) was calculated for each independent variable against the dependent variable. Finally, variables which have shown significant association with the dependent variable on the bi-variate analysis were entered to multivariate logistic regression model to identify their independent effects. Statistical significance was accepted at P<0.05.

The tape-recorded and note obtained from IDI was transcribed carefully by investigators into Afan Oromo language word by word and arranged with the written notes taken at the time of discussion and interview. The information was translated in to English. Thematic analysis was employed in order to describe the ideas obtained from the IDI. Through this process, a verbatim quotation was used to illustrate responses on relevant issues and themes. Finally, it is incorporated with the quantitative findings in order to provide comprehensive and complete information.

Ethical clearance was obtained from Ethical and Rreview Committee of Madawalabu University (MWU). Official permission letter was obtained from MWU to Bale Zone Health Office then to Agarfa Health office. Verbal informed consent was obtained from all study participants. Participation in the study was completely voluntary. All the information obtained from the respondents remained confidential and anonymous.

Results

A total of 788 women responded to the questionnaire making the response rate 100%. The mean age of the participants was 31.0 ± (6.3 SD) years. Most of the participants were Oromo (86.3%) by Ethnicity and Muslim (49.4%) by religion (Table 1). Most of the participants (78.2%) were housewives, and 54% of their partner's were farmers by occupation. The mean family size of the participants was 6.1 ± 2.4, ranging from 1 to 14.

Socio-demographic characteristics	Frequency (n)	Percentage (%)
Age group of participants		
15-19	8	1
20-24	86	10.9
25-29	270	34.3
30-34	175	22.2
35-39	156	19.8
40-44	71	9
45-49	22	2.8
Religion		
Orthodox	347	44
Muslim	389	49.4
Protestant	21	2.7
Catholic	31	3.9
Educational level of participants		
Can't read and write	178	22.6
Can read and write	68	8.6
Grade (1-4th)	227	28.8
Grade (5-8th)	215	27.3
Grade (9-12th)	87	11
Grade 12+	13	1.6
Educational level of their partner		
Can't read and write	54	6.9
Can read and write	44	5.6
Grade (1-4th)	165	20.9
Grade (5-8th)	287	36.4
Grade (9-12th)	177	22.5
Grade 12+	61	7.7
Women living with her Husband		
Yes	760	96.4
No	28	3.6
Women's Husband has only one wife		
Yes	743	94.3
No	45	5.7
How many wives he have currently		
Two	41	90.5
Three	4	9.5
Participants having TV		
Yes	236	29.9
No	552	70.1
Participants having Radio		
Yes	582	73.9
No	206	26.1

Table 1: Socio-demographic characteristics of married women in the reproductive age group, Agarfa district, May, 2014 (n=788).

The mean age at first marriage and first birth of the participants was 18.6 ± 2.1 years and 20.1 ± 2.2 years, respectively. The mean number of alive birth was 4.3 ± 2.3 children per women. The mean ideal desired number of children to have in life time was 5.5 ± 1.7 children ranging from 1 to 12 children. The most ever known type of modern contraceptive was Depo-provera (98.5%) followed by pills (82.5%). The most ever used type of MC was Depo-provera (81.5%) followed by Pills (38.3%). Three forth (75.9%) of the participants were on modern contraceptive during the interview time. Nearly half (45%) of the participants stated fear of side effect was their main reason for not currently using MC.

The magnitude of MC discontinuation was 25.5% (95% CI=22.6%, 28.8%). The discontinuation rate within one year was 19.7%. Whereas two year and above rate of discontinuation was 5.8%. Among the major methods, the highest discontinuation rate was for the injectables

(67.2%), followed by the pills (27.4%). In contrast, implants had a discontinuation rate of just 4.0%. The median duration of use before stopping the method was 10 months with minimum 3 and maximum 72 months. The main reasons of discontinuing the method were to get pregnant (61.7%) and fear of side effects (48.0%) (Table 2) Thirteen percent of the participants stated that there are things that prohibit women from using FP like rumours, limited in access and husband disapprovals. 11% of the participants had experienced pregnancy while they were using FP.

Most of the participants of IDI stated the presence of opposition to use MC especially from the family of husband which mostly wanted to see many grandchildren.

One IDI said that;

"He (husband) has got good feeling about it (family planning). But the problem is with his family. He accepts the feeling of his family even though he knows that we have to limit our children based on the resource we have."

Reasons for stopping the MC Use	Frequency (n)	Percentage (%)
Lack of knowledge/information	1	0.5
Lack of access	3	1.5
Getting pregnant	124	61.7
Fear of infertility	13	6.5
Partner disapproves	40	20.0
I am infecund	3	1.5
Fear of side effect	97	48.0
Don't like modern methods	3	1.5
Fear of method failure	29	14.4
Perceive MC is sinful to use	2	1.0
Providers advised me to stop	2	1.0
Husband away at job	4	2.0
Facility is very far	2	1.0
Quality service problem	3	1.5
Cultural taboo	0	0

Table 2: Reasons for stopping MC use, married women in the reproductive age group, Agarfa district, May, 2014 (n=788)

Participants selected multiple responses

Almost forty four percent of the participants faced irregular bleeding and missing period while using FP. Twenty four percent of the participants experienced heavy bleeding during using FP (Table 3).

Although the in-depth interview participants have acknowledged the benefit of contraceptive as to limit and space child birth; they have explained different side effects of modern contraceptives. The effect of MC was explained differently by the women. Most of the participants have experienced different side effects like heavy bleeding, disturbance of menstruations, headache, and loss of appetite. They have perceived fear of infertility after use of MC.

"I know one of my friends took some tablet (pills). She bleeds every time, her menses always stay for one week; the bleeding does not stop. First I want to use contraceptive for the future but I fear later. The bleeding was too much."

"I know the woman who used contraceptive and has been unable to give birth for three years. Her womb was affected by contraceptive."

"After I changed from pills to injection, I faced problems. It has really changed the pattern of my menstruation. I did not have my periods for a long time. The normal women should always have their periods. When I told the provider about it, he told me it was from method. I had all the bad effects he talked about because I did not have my period and also it changed the seat of my foetus in the uterus during that time. That was why I delivered my baby by operation."

Nine percent of the clients did not get any information at their first visit for FP. Sixteen percent of the mothers had not counseled on any anticipated side effects of the method. Some of the qualitative study participants identified the presence of limitation in the providers counseling about the available methods and possible side effects.

"*First when I went to health centre for the service, they asked me which method do you want? I responded as I don't know for a time being, I asked them for one month. Then they gave me pills."*

Contraceptives side effect	Frequency (n)	Percentage (%)
Irregular bleeding/spotting	347	44.0
Lack of period	341	43.3
Heavy bleeding	186	23.6
Weight gain	291	36.9
Weight loss	181	23.0
Headaches	419	53.2
Nausea, vomiting	123	15.6
Decrease libido	39	4.9
Vaginal dryness	37	4.7
Pain at insertion site	158	20.1
Depression	291	36.9
Mood swings	240	30.5

Table 3: Modern contraceptives' side effect while using contraceptives, married women in the reproductive age group, Agarfa district, May, 2014 (n=788)

Participants selected multiple responses

For a single increase in family size the likelihood of MC discontinuation decreases by 12%. Those participants who have TV were twice more likely (AOR=1.8, 95%CI: 1.2, 2.8) to discontinue than those who have no TV in their home. Participants who said that decision to use MC was the role of husband found almost three times more likely to discontinue (AOR=2.76, 95%CI: 1.22, 6.24) compared to the participants who said it was decided by both the husband and wife. Participants who had experienced pregnancy while using MC were three times more likely to discontinue MC (AOR=3.2, 95%CI: 1.84, 5.70) compared to those who did not experience pregnancy while using the method. Participants' perceptions that their partner supports FP use and FP is beneficial to the family financially have been found positively associated with continuing MC utilization. Whereas, participants' who perceived MC could harm the womb were more likely to discontinue MC use (Table 4).

Variables	COR(95%CI)	AOR(95%CI
Women's education		
Can't read and write	0.8(0.25, 2.29)	1.0(0.24, 4.63)
Can read and write	0.6(0.19, 2.29)	0.7(0.15, 3.40)
Grade (1-4th)	0.5(0.17, 1.78)	0.6(0.14, 2.44)
Grade (5-8th)	0.4(0.12, 1.24)	0.5(0.13, 2.07)
Grade (9-12th)	0.3(0.07, 0.91)	0.3(0.07, 1.29)
Grade 12+	Ref.	Ref
Partner's education		
Can't read and write	Ref.	Ref.
Can read and write	1.0(0.46, 2.41)	1.15(0.37, 3.49)
Grade (1-4th)	0.6(0.32, 1.18)	1.86(0.60, 5.70)
Grade (5-8th)	0.6(0.36, 1.25)	0.81(0.31, 2.10)
Grade (9-12th)	0.4(0.20, 0.80)	1.07(0.46, 2.50)
Grade 12+	0.6(0.29, 1.45)	0.59(0.24, 1.40)

Family size	0.9(0.89, 1.02)	0.88(0.80, 0.97)*
Husband was living with her wife		
No	Ref.	Ref.
Yes	2.2(1.05, 4.87)	1.25(0.45, 3.47)
Have TV in home		
No	Ref.	Ref.
Yes	0.7(0.52, 1.04)	1.8(1.16, 2.87)**
#Age at marriage	0.9(0.85, 0.99)	0.96(0.86, 1.07)
Decision on the number. of children		
Husband	3.5(1.55, 8.30)	1.33(0.37, 4.73)
Wife	3.0(1.38, 6.47)	2.46(0.90, 6.75)
Both	1.3(0.89, 1.91)	1.43(0.87, 2.36)
God	Ref.	Ref.
Discuss on MC with female friend		
No	Ref.	Ref.
Yes	1.7(1.20, 2.38)	0.92(0.59, 1.43)
The method was wanted		
No	Ref.	Ref.
Yes	0.2(0.17, 0.41)	0.55(0.29, 1.04)
Opposition not to use MC		
No	Ref.	Ref.
Yes	2.0(1.26, 3.27)	1.01(0.48, 2.09)
Things prohibit women from using MC in your community		
No	Ref.	Ref.
Yes	2.0(1.31, 3.13)	1.36(00.71, 2.62)
Ever experienced pregnancy while on MC		
No	Ref.	Ref.
Yes	4.2(2.73, 6.74)	3.24(1.84, 5.70)***

Variables	AOR (95%CI)	AOR (95%CI)
Who decide on FP use		
Husband	6.3(3.69, 10.76)	2.76(1.22, 6.24)*
Wife	2.9(1.71, 4.90)	1.54(0.75, 3.16)
Both	Ref.	Ref.
Husband support		
Agree Neutral	0.4(0.08, 0.21) 0.2(0.06, 0.69)	0.40(0.20, 0.80)* 0.41(0.10, 1.68)
Disagree	Ref.	Ref.

FP methods benefit your family financially		
Agree	0.05(0.02, 0.16)	0.20(0.05, 0.76)*
Neutral	0.2(0.06, 0.73)	0.32(0.07, 1.43)
Disagree	Ref.	Ref.
Using MC is beneficial for women's health		
Agree	0.2(0.13, 0.40)	1.07(0.66, 1.74)
Neutral	0.4(0.22, 0.98)	1.48(0.68, 3.24)
Disagree	Ref.	Ref.
Have access to all choices		
Agree	0.3(0.15, 0.60)	1.51(0.51, 4.49)
Neutral	0.4(0.15, 0.98)	1.00(0.26, 3.83)
Disagree	Ref.	Ref.
There are competent providers in the HF		
Agree	0.2(0.11, 0.35)	0.52(0.21, 1.30)
Neutral	0.3(0.15, 0.69)	0.63(0.21, 1.84)
Disagree	Ref.	Ref.
Can discuss about FP with spouse		
Agree	0.3(0.17, 0.50)	1.55(0.61, 3.88)
Neutral	0.4(0.17, 0.86)	2.20(0.67, 7.21)
Disagree	Ref.	Ref.
Contraceptives can harm a woman's womb		
Agree	5.3(3.72, 7.72)	2.46(1.47, 4.10)***
Neutral	3.6(2.06, 6.38)	2.72(1.21, 6.12)*
Disagree	Ref.	Ref.
# Variables treated as continuous, * Significant at P<0.05, **significant at P<0.01, ***significant at P<0.001		

Table 4: Multivariate analyses of selected factors affecting MC discontinuation among married women, Agarfa district, May, 2014.

Discussion

In this study the magnitude of MC discontinuation for all methods was found as 25.5% (95%CI: 22.6% to 28.8%). One year discontinuation rate was 19.7%. This is lower than the national finding of EDHS 2011 (37%) [4] and Kenya (36%) [14]. The overall 12 month discontinuation rates are highest in the Dominican Republic (63 to 65%), Bangladesh (49%), and Colombia (44 to 53%) [15].

In this study the highest discontinuation rate was for the injectables (67.2%), followed by the pills (27.4%). In contrary, the highest discontinuation rate is for the pill (70%), followed by the male condom (62%) (4). Twenty nine percent of injectable users discontinue use of the method for any reason within 12 months of starting [14]. The high rate of discontinuation for injectables partly stems from the fact that women are more likely to experience side effects when using injectables [16]. This was also supported by the qualitative finding that mostly the participants stated the perceived and experienced negative effect of injectables.

In this study the median duration of use before stopping the method was 10 months. Nepali women who started using the pill or Depo-Provera were likely to use it for a relatively short period of time [17].

The main stated reasons for the MC discontinuation were to get pregnancy (61.7%), fear of side effects (48%), partner disapproval (20.0%) and method failure (14.4%). The frequently stated side effects experienced by the participants were headaches, irregular bleeding, and absence of menstruation, depression and weight gain. Similarly, desire to become pregnant was the most prominent reason for contraceptive discontinuation (30%), followed by health concerns (26%) [12]. Four percent of women in Bangladesh discontinued because of their husband's opposition in the first year of use [15]. Disturbances in the menstrual cycle are one of the most common

reasons for discontinuation of hormonal methods of contraception [18]. The percentage of discontinuations due to side effects ranged from 2% in Armenia to 37% in Egypt [15]. Husband's opposition was cited as the reason for 7% of discontinuations in Bangladesh and 2 to 5% in Kenya, Zimbabwe, Armenia, Colombia, and the Dominican Republic [15].

Proper counseling and follow up services are important strategies for the continuation of a method. The survey revealed that 16% of the respondents had not been given counseling about the possible side effects of the method prior to its acceptance. This suggests that the presence of weakness in the quality of service regarding FP. The qualitative finding also identified the presence of limitation in counseling of all method choices especially at first visit.

For a single increase in family size the likelihood of MC discontinuation decreases by 12%. Those participants who have TV were twice more likely to discontinue than those who have no TV in their home. This could be due to the promotion of all contraceptive choices through TV which may increase the knowledge and choice of contraceptives of the participants.

Method failure was positively associated with MC discontinuation. Couples role on decision to use MC were found significantly associated with MC discontinuation. Participants' perceptions that their partner supports FP use and FP is beneficial to the family financially have been found positively associated with continuing MC utilization. Participants' perception that MC can harm the womb was positively associated with MC discontinuation. Similarly, mothers' perception that modern contraceptive especially long acting and permanent contraceptives could harm the womb was negatively associated with their intention to use these methods [19].

The finding should be interpreted taking the limitations of this study in to consideration. Since this study examined the pattern of MC discontinuation only among women on marriage, the sample was limited to only currently-married women at the time of the study. Hence, these results may not be able to be generalized to all women in Agarfa District. The study did not ascertain the providers' attitudes and behaviors on MC use. Interviewer bias may be there especially in the questions with probing. Cause and effect relationship was also difficult to establish for the factors dealt in the study since it is cross-sectional study. Therefore, further prospective studies should be done to investigate in detail on the discontinuation rate of each modern contraceptive.

Conclusion

Based on the findings of the research it is concluded that the magnitude of MC discontinuation for all methods is still high even though lower than the national and international findings. The highest discontinuation rate is for the injectables. Most of the participants discontinue using injectables and pills within one year. The main reasons for the MC discontinuation are to get pregnancy, fear of side effects, partner disapproval and method failure. The principal factors which have been found positively associated with MC discontinuation are presence of TV in home, method failure, and participants' perception that MC can harm the womb. Whereas, increased family size, joint decision on FP using by couples, and participants' perceptions that their partner supports FP use and FP is beneficial to the family financially have been found positively associated with continuing MC utilization.

The district health office should design educational programs that promote and reduce barriers to modern contraceptive use at community level in the district. FP providers should improve quality of FP counseling on all of the FP methods, address misconceptions and fears that exist about modern contraceptives and highlight the benefits of FP during FP counseling. Husbands need relevant information to participate responsibly in making decisions on FP so as increase their support to women on FP utilization.

Competing Interests

The authors declare that they have no competing interests.

Authors' Contributions

TB and AG carried out the conception and designing of the study, data collection, performed statistical analysis and interpretation of data, and wrote the manuscript. PT participated in designing the study, data collection, analysis, reviewing and editing the final draft of the manuscript. All authors read and approved the final manuscript.

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