

**ADDIS ABABA UNIVERSITY
COLLEGE OF HEALTH SCIENCES
SCHOOL OF NURSING AND MIDWIFERY
POST GRADUATE PROGRAM**

**DISCONTINUATION RATE OF LONG ACTING
REVERSIBLE CONTRACEPTIVES AND FACTORS
ASSOCIATED AMONG REPRODUCTIVE AGE WOMEN
IN BUTAJIRA TOWN, SOUTHERN ETHIOPIA, 2020**

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THIS THESIS BY HAREGWA ASNAKE IS ACCEPTED IN ITS PRESENT FORM BY THE BOARD OF EXAMINERS AS SATISFYING THESIS REQUIREMENT FOR THE DEGREE OF MASTERS IN MATERNITY AND REPRODUCTIVE HEALTH NURSING

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List of Acronyms and Abbreviations

AHR	Adjusted Hazard Ratio
AOR	Adjusted Odds Ratio
CI	Confidence Interval
CSA	Central Statistics Agency
DHS	Demographic and Health Survey
EDHS	Ethiopian Demographic and Health Survey
ETB	Ethiopian Birr
HEW	Health Extension Workers
IUD	Intra Uterine Device
LARC	Long Acting Reversible Contraceptive
MOH	Ministry of Health
RH	Reproductive Health
SDG3	Sustainable Development Goal 3
SNNPR	South Nation Nationality and Peoples' Region
SPSS	Statistical Product and Service Solutions
US	United State
WHO	World Health Organization

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Abstract

Background: High prevalence of modern contraceptive discontinuation including long-acting reversible contraceptives without any change in fertility intention has resulted in unintended pregnancy. Discontinuation of contraceptives often associated with unplanned pregnancy which ends up with induced abortion and unplanned birth. The DHS analysis of 60 countries reported that discontinuation rate of an IUD was 14.3%. Based on the report of developing countries 13.1%, 26.3% and 36.7% of IUD user women discontinued at the first 12, 24 and 36 months respectively.

Objectives: To assess the discontinuation rate of long-acting reversible contraceptives and factors associated among reproductive age women in Butajira town, Southern Ethiopia, 2020.

Methods: community-based cross-sectional study was conducted from April to May to assess the discontinuation rate of long acting reversible contraceptives and factors associated among reproductive-age women in Butajira town. Systematic sampling method was used to select 227 women. Data was collected by questionnaire and entered into a computer using Epi-data version 4.6.2 statistical program then it was exported to SPSS version 25 for analysis. Statistical analysis was used to predict the relation between dependent and independent variables. Lastly, significant of statistical association was assured using OR at a 95% confidence interval and p-value <0.05. The result was presented using text, tables, graphs and charts.

Result: this study revealed that discontinuation rate of long-acting reversible contraceptives was found 22.5%. The main reason for discontinuation was facing of side effect 26(52%) and from that menstrual disruption 19(73.1%). Time consumed to reach the health facility (AOR= 6.16(95% CI 1.46-25.97), desire to have more children (AOR= 5.3(95% CI: 1.13-24.81) and counseled about benefit of long acting reversible contraceptives (AOR=0.08(95% CI: 0.02-0.39) were predictors of LARC discontinuation.

Conclusion and Recommendation: This study showed that discontinuation rate was 22.5%. The result suggested that need of implementing and strengthening regular supervision on how clients are counseled.

Key words: Discontinuation, LARC, Butajira

1. INTRODUCTION

1.1. Background

Contraceptive utilization helps the couples and individuals to decide freely the number and spacing of children. The growing use of contraceptive method has resulted in improvement of health-related outcomes such as maternal mortality and infant mortality (1).

Long-acting reversible contraceptive methods (implants and IUD) are among the subclass of modern contraceptive methods. They provide effective contraception for long period of time without requiring the action of the user and with minimal load to user after initiation (2). Women can prevent unwanted pregnancies at least for three years after using implants and 10 years after using copper IUD with the immediate return of fertility after removal of these devices (3).

High prevalence of modern contraceptive discontinuation including long-acting reversible contraceptives without any change in fertility intention has resulted in unintended pregnancy (4). The DHS analysis of 60 countries reported that discontinuation rate of an IUD was 14.3% (5). According to the report of systematic review and meta-analysis of 20 studies from different parts of the world 20% of users discontinued LARC (20.6% of an IUD and 20.2% of implants users) (6). Based on the report of developing countries 13.1%, 26.3% and 36.7% of IUD users women discontinued at the first 12, 24 and 36 months respectively (7).

In EDHS 2016 the overall discontinuation of contraceptives at 12 months was 35% and from that 13% of them were IUD users and 11% of them were implants users among reproductive age women (8).

The higher discontinuation rate of long acting reversible contraceptive methods indicates the failure of family planning program. LARC, which designed to use for 3-12 years, are cost effective when they serve for intended period. In relation with their health impact, the economic burden of the problem is very high. Therefor measuring the discontinuation rate and identifying associated factors is important for designing of program to overcome the problem.

1.2.Statement of the Problem

According to the WHO 2010 report, nearly 99% abortion deaths were caused by unsafe abortion secondary to unplanned pregnancies. Unintended pregnancies and unplanned birth can have a serious health, social and economic impact on woman and her family (9). Unintended pregnancy remained high worldwide. For instance in United States half of the pregnancies are unintended (10). In countries where moderate to high contraceptive prevalence, the majority of unintended pregnancy occur due to discontinuation (11).

A study on the cause and consequence of contraceptive discontinuation evidenced from 60 demographic and health survey at three months after discontinuation revealed 40% or more women were at risk of conception: in Egypt (40%), Ethiopia (42%), Kenya (51%), Malawi (73%), Tanzania (56%), and Zimbabwe (47%) (5).

Many experts believed LARCs to have the higher continuation rates as compare to other methods of contraceptives but evidences from different studies indicated that discontinuation has been increasing. In India, Vietnam and Nepal, the discontinuation rate of IUD in the first year was 16.79%, 19.4% and 46% respectively (12–14). The discontinuation rate of LARC is highly increasing in Africa. A study in Nigeria, discontinuation of Jadell was found to be 26% and discontinuation of Implanol was found to be 19% in Nigeria and 13.5% in Egypt (15,16). A study in different regions of Ethiopia on discontinuation of implanol: 16% in Ofla Tigry and 65% in Debretabor (17–19)

Quality of family planning service plays an important role in contraceptive use, because it is likely to affect adoption and contraceptive continuation (20). From the existed limited researches socio demographic characteristics (age, marital status, educational status), reproductive related characteristics (history of abortion, number of living children, parity) and method related factors (side effect, counseling, satisfaction with the service given, information about family planning) were risk for discontinuation of long acting reversible contraceptives (13,14,19,20).

Giving major concern on possible side effect, counseling, reassurance and follow up result increase duration of use of LARC and women's satisfaction. In general documentation of LARC discontinuation in Africa is poor (21). In 2003, Ethiopian MOH implemented the

health extension program, which was aimed to increase access to RH care including family planning (22,23). In spite the Ethiopian government had been working on improvement of RH service and making health facility service accessible and usable for all reproductive age women over the past decade, encouraging contraceptive continuation has been given less concern than enhancing new adopters in the country (24).

Beside low utilization of LARC, its discontinuation is increasing. There is no study conducted on discontinuation of IUD and other Implants (Jadell) in Ethiopia except few studies on implanol discontinuation. Considering this gap, this study aims to determine the discontinuation rate of long acting reversible contraceptives and associated factors among reproductive age women in Butajira town, south Ethiopia, 2020.

1.3. Significance of the study

Beyond low utilization of long acting reversible contraceptives, there discontinuation also common. Contraceptive discontinuation can highly contribute for unplanned pregnancy, unsafe abortion, which contributes to high maternal mortality.

The discontinuation and determinant factors of long acting reversible family planning methods is not well studied in Ethiopia particularly in this selected study area. Therefore, this study aimed to assess the discontinuation rate and its determinant factors among LARC users’.

The finding of this study in general will help the health professionals to understand the extent of discontinuation rate of LARC, and further help to improve the quality of family planning service.

Also, the finding will help the policy makers, planners and other organization who work on family planning area to look for different approaches in order to solve this problem.

The paper may be useful to other researchers as reference while conducting further studies.

In broader sense, the finding of this study will help in the achievement of the sustainable development goal (SDG 3) of family planning in the country.

2. LITERATURE REVIEW

2.1. Rate and Reason for Discontinuation of LARC

2.1.1. The discontinuation rate of LARC

Currently the discontinuation rate of long-acting reversible contraceptives is increasing even though the rate is geographically varying.

A study in USA among 267 women the incidence of IUD discontinuation in the first 12 months was found to be 19.5%. Another retrospective study among 108,281 women, 17 % of IUD users discontinued in the first year of insertion (25). Also prospective study among 9,256 adolescents and women discontinuation rate of IUD was reported 8% and 6.9% for implants (26).

In a cohort study conducted in Netherland discontinuation rate of implanol after 12 months was 28% and 47% at 24 months (27). A study in India among IUD users revealed the incidence of IUD discontinuation in the first year following insertion was 16.79 % (12).

A cross sectional study in Pakistan among 681 women of IUD users, nearly one-fifth (19.4%, of the women had discontinued IUD use at a mean duration of 7.7 ± 2.1 months. The highest rate of discontinuation recorded 15.5% and 19% at six and ten months respectively (28). A result from retrospective study in Vietnam among (n = 1316) discontinuation of IUD was 12.1% at 12 months 19.4% at 24 months and 26.9% at 36 months (13).

According to a report based on developing countries, 13.1% of IUD users discontinued during the first 12 months, 26.3% within 24 months, and 36.7% by the third year following insertion. The discontinuation of IUD within the first 12 months ranges from 13% to 47% (6). In DHS analysis of 21 low income countries the discontinuation rate of IUD was ranged 20% in Indonesia to 76% in Sierra Leone in the first 36 months (29).

A descriptive cross-sectional study in South Africa (n = 188) women, implanol discontinuation was 64.3% with mean duration of use 11.2 ± 7.1 months and 94.4% of users removed it after the second year (30)

A result from retrospective study in Nigeria, tertiary clinics among 335 women, 31.3% of the user had removed their LARC and 53.4%, 18.2% and 28.4% for implanol, jadell and IUD respectively. Another cross sectional study among 11,502 women who used implants, 26% discontinued Jadell and 19% removed implanol (15,31).

A study in Ambo, Ethiopia, among 356 women, early Implanol discontinuation rate was reported 38.2% (32). On the other hand a cross sectional study among (n = 244) women, the discontinuation rate of implanol in Hawassa was 16% (20).

2.1.2. Reasons for discontinuation of LARC

A prospective study in Australia among 211 women the main reasons for premature removal of IUD were 47.5% because of heavy menstrual bleeding and 25.4% due to expulsion (33).

A study in USA showed nearly half of IUD users discontinued due to pain and 32.7% of them because of expulsion (25). Cohort study in China reported that most of the users discontinued IUD related to method failure 10.06% in the first year and 18.96% in second year of insertion (34).

Study in Vietnam reasons for discontinuation among the 434 women who had ever had an IUD removed, 48% were due to health concerns as the main reason for removal. Of these women, 43% reported excessive menstrual bleeding, 18% reported weight loss, 14% infections, and 3% discomfort during sexual intercourse. Other reasons for IUD removal were desire to switch to another FP method (14%) and expulsion (10%). Only 6% of women had their IUDs removed due to a desire for more children(13).

Study in India of the 387 women, 56 % discontinued IUD use because of a desire to conceive, 27.7 % because of side effects, 15.36 % because of opposition from the woman's family, and 1.5 % because they were sexually inactive. The discontinuation in the first 12 months of use was mostly due to side effects, the most common being irregular bleeding and excessive bleeding , followed by infection and pain. The higher discontinuation rates in the second and the third years were chiefly due to the desire of the women to conceive (12).

A descriptive cross sectional study in South Africa on 188 women indicated that most participants discontinued implanol because of side effect (71.3%), followed by poor position

of insertion (3.2%) and desire to conceive (4.3%). Other reason for implanol discontinuation was being on medical treatment (anti-retroviral drugs, anti-psychotic and anti-tuberculosis drugs). Around 5.3% of the user got pregnant while using implanol and decide to remove it (30).

A study result in Nigeria revealed that 38.5% of women discontinued LARC because of a desire to become pregnant. The others due to side effect (24.5%), out of these (bleeding (15.5%), head ache (3.6%), weight gain (3%)) (31). Another retrospective study among 1,401 women also revealed that majority of jadell user discontinued use because of desire for pregnancy (41.2%), changed to another method (12.5%), prolonged or irregular menses (11.3%) and spouse's request (7.4%) (35).

Community based Un-matched case control study in Diguna Fango district of south Ethiopia; reasons for implanol discontinuation were method inconveniency (35.5%), desire to have more children (24.7%), husband opposition (15.3%), rumor (14.1%), and religious opposition (13.5%). Moreover, among cases and controls majority of cases (43.5%) and controls (56.1%) experienced side effect. The major side effect was menstrual disruption (70.2%) and others were headache (64.8%), amenorrhea (27%), weight gain (24%), and other minor side effects (13.5%) (36).

2.2.Factors associated with discontinuation of LARC methods

2.2.1. Socio demographic related factors

A cohort prospective study in US, St Louis town, being single (AOR = 1.26, 95% CI: 1.01, 1.59) separated/widowed/divorced (AOR = 1.62, 95% [CI] 1.11, 2.37) women more likely to discontinued LARC compared to married women (26).

Study result in Vietnam women in the oldest age group (≥ 40 years) had more than two times the risk of discontinuing IUD use (AHR = 2.18, 95% [CI] 1.32–3.61; P = 0.002) than women aged ≤ 25 years. Women who worked as housewives were less likely to discontinue IUD use (AHR = 0.60, 95% [CI] 0.41-0.88; P = 0.010) than women who worked as farmers. Also women who were working in government or business less likely to discontinue IUD use (AHR = 0.56, 95% [CI] 0.37 – 0.86; P = 0.007) than farmers (13).

A nested case control study of 115 cases and 115 controls in Nepal showed that women from rural area of an IUD user two times more likely discontinued IUD than women from urban area (AOR = 2.121, 95% [CI] 1.192-3.775) (37).

A community cross sectional study of 711 women in Dale district south Ethiopia revealed that women at the age of 20-24, 25-29 and ≥ 35 years old were less likely discontinued implanol use compared to women with the age <20 years old with (AOR = 0.52, 95% [CI] 0.27–0.96), (AOR = 0.44, 95% [CI] 0.23–0.85) and (AOR = 0.08, 95% [CI] 0.2–0.41) respectively. And also women whose monthly income >1000 ETB less likely discontinued implanol use than women monthly income <500 ETB (AOR = 0.45, 95% [CI] 0.20–0.97) (19).

Un- matched case control study in Diguna Fango district of Wolayita, southern Ethiopia showed that women <20 years old three times more likely discontinued implanol use than women ≥ 35 years old with (AOR = 3, 95% [CI] 1.16–7.80). Similarly women who had no formal education three times more likely discontinuation compared to women who attended secondary school and above (AOR = 2.8, 95% [CI] 1.31–6.11) (36).

A study result in Ambo, Ethiopia showed that the odds of discontinuation among women who had completed secondary school were more than 2 times higher than the odds in those who have no formal education (AOR=2.2, 95% [CI] 1.16-4.16; P = 0.046) (32).

2.2.2. Method related factors

A study result in Pakistan showed that women who had not got counseling during implanol insertion more likely discontinued it compared to who had got counseling service (AOR = 1.2, 95% [CI] 1.02-3.89). Also those who faced side effect three times likely discontinued implanol use (AOR = 3.14, 95% [CI] 1.7-5.54) than who do not face side effect (32).

A study in Nepal on early discontinuation of IUD stated that women who had faced side effect during utilization of IUD two times more likely discontinued compared to who had not faced such problem (AOR = 2.623, 95% [CI] 1.182-5.822). Similarly, another nested case control study in the same setting women had faced side effect of IUD use three times more likely discontinued than had not faced side effect (OR = 2.813, 95% [CI] 1.647-4.803) and

who had not follow up three times likely discontinued IUD (OR = 2.690, 95% [CI] 1.527-4.740) than who had follow up (37) .

A study in Upper Egypt women who experienced side effects of Implanon use was more likely to discontinued (AHR 3.6, 95% [CI] 1.60 to 8.11) than who had not experienced side effect (16).

An institutional based cross sectional study in Debretabor, Ethiopia showed that women who had not got counseling about the side effect of implanol use were more likely discontinued than who had been counseled about side effect (AOR = 1.5, 95% [CI] 1.104–3.427), who had no an appointment for follow up two times likely discontinued (AOR = 2.6, 95% [CI] 1.248–4.305) than who had follow up and those who experienced side effect more likely discontinued (AOR = 1.7, 95% [CI] 1.452–4.604) than who had not experienced side effect (18).

A study result in Ofla district of Tigray, Ethiopia showed that women whose weight increased during implanol use were four times more likely discontinued than whose weight had not increased (AOR = 4.23, 95% [CI] 1.48-37.61). Also those who did not satisfied by service given during insertion three times more likely discontinued than who were satisfied (AOR = 3.40, 95% [CI] 1.32-8.76) (17).

A study in Dale district of south Ethiopia showed that women who had no information about family planning before the insertion of LARC were more likely discontinued implanol than who had information (AOR = 1.52, 95% [CI] 1.1–2.28) and women who were not choose the method by themselves were 1.83 times more likely discontinued implanol (AOR = 1.83, 95% [CI] 1.18 – 2.83) compared to those who had chosen the method by themselves (19).

2.2.3. Obstetrics related factors

A prospective study in Australia on user characteristics and, experience and continuation rate of copper intrauterine device of 211 women showed that, women had two or more child were less likely discontinued IUD use than women had no any child (AHR = 0.22, 95% [CI] 0.09-0.5) (33).

A study in Debretabor revealed that women had living children were more likely discontinued implanol than who had no living children (AOR = 2.0, 95 [CI] 1.29–4.541). Also women had only one child more likely discontinued implanol than women had two or more children (AOR = 1.9, 95% [CI] 1.277–2.843) (18).

A study in Diguna Fango district of Wolayita in South, Ethiopia showed that women had history of abortion two times more likely discontinued implanol use (AOR = 2.3, 95% [CI] 1.1–3.21) than who had no abortion history (36).

In general, few literatures are available in developing countries particularly in Ethiopia. The discontinuation rate shows a slight variation from place to place. Rate of discontinuation increased from first year to subsequent years of usage. The main reasons for discontinuation of LARC were side-effects, need to have more children and method failure. Being single, divorced, separated and widowed increase discontinuation rate and younger IUD user are less discontinuation rate than contrast group. But among implanol users the inverse is true. On the other hand, level of education increased the likely hood of discontinuation LARC. Counseling and adequate information provision and self-decision about the method have great impact to decrease discontinuation. Finally, mother who have more than two children and no abortion history cases have less discontinuation rate than the contrast group.

2.3. Conceptual framework

Based on reviewed literatures, discontinuation of LARC can be affected by different factors. These factors can be categorized as, Socio demographic related factors, health system related factors, obstetrics related factors and method related factors. The following conceptual framework is developed based on reviewed literatures and modified (13,14,19,20) .

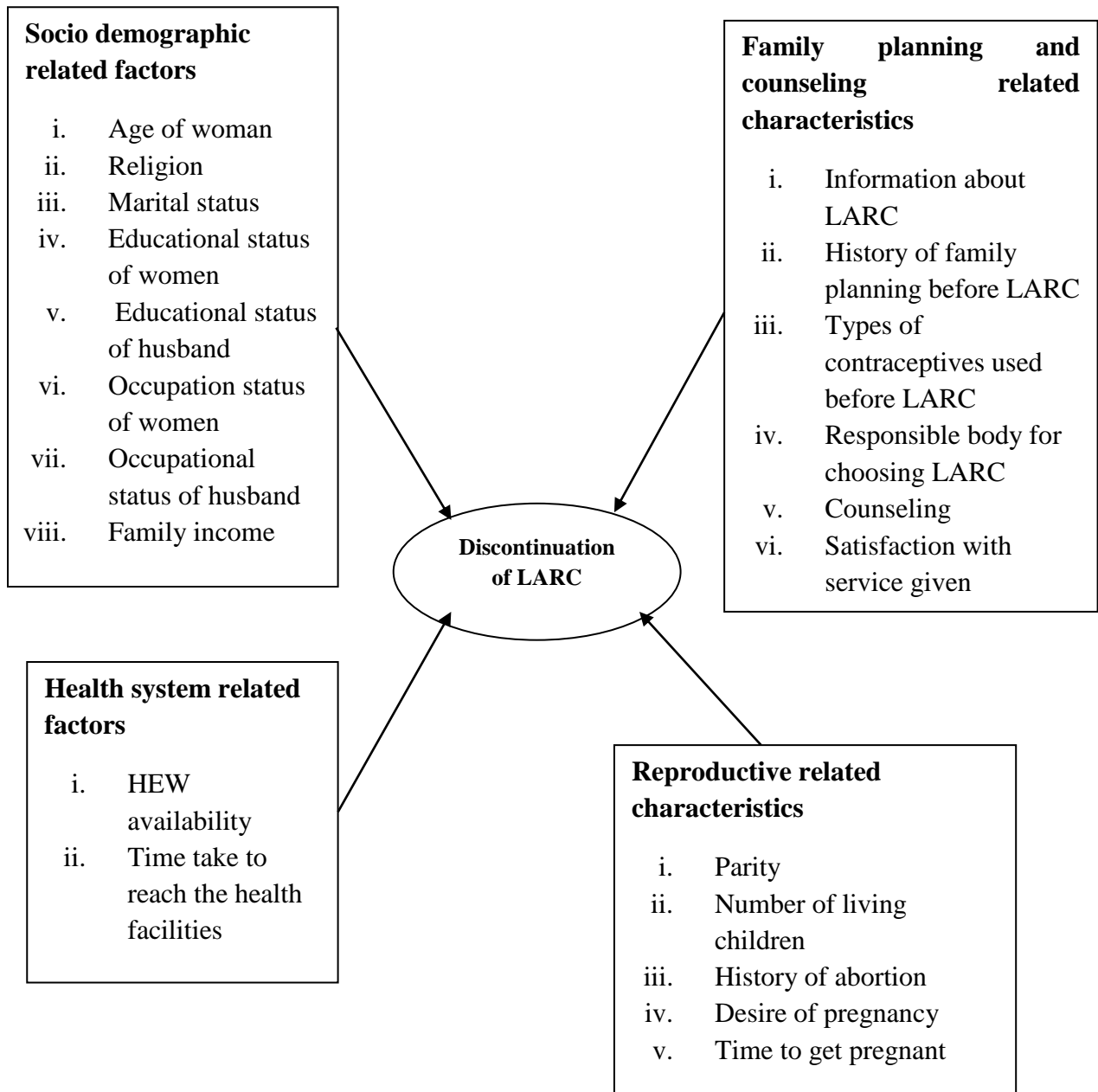


Figure 1 Conceptual framework on assessment of LARC discontinuation and associated factors among reproductive age women in Butajira town; constructed from reviewed literatures and modified.

Key: LARC = Long Acting Reversible Contraceptives, HEW = Health Extension Worker

3. OBJECTIVES

3.1.General Objectives

To assess the discontinuation rate of long acting reversible contraceptives and associated factors among reproductive age women in Butajira town, South Ethiopia.

3.2.Specific Objectives

- To determine the discontinuation rate of long acting reversible contraceptives among reproductive age women in Butajira town.
- To identify factors associated with long acting reversible contraceptives discontinuation among reproductive age women in Butajira town.

4. METHODS AND MATERIALS

4.1. Study area and period

The study was conducted in Butajira town from April 01 to May 01, 2020. Butajira is a town and separate Woreda in South central Ethiopia and 109km far from Addis Ababa. Located at the base of Zebidar Massif in Gurage zone of SNNPR and town is surrounded by Meskane woreda. The town has an elevation of 2131 meter above sea level and the estimated size is 797 Km². The annual rainfall ranges between 900mm and 1,400mm. In 2007 according to CSA report, total population were 33,406 of whom 16,923 were men and 16,483 were women (38). In 2009 the number of women in reproductive age group were 11,133 (39). The town has one public hospital and one health center.

4.2. Study Design

Community based cross sectional study design was conducted

4.3. Source and Study Population

4.3.1. Source population

Source populations were all reproductive age women (15-49) who ever used long acting reversible contraceptives in Butajira town.

4.3.2. Study subjects

All reproductive age women who inserted long acting reversible contraceptives one year prior to data collection time in Butajira town.

4.4. Eligibility Criteria

4.4.1. Inclusion criteria

- All reproductive age women who had been using long acting reversible contraceptives in Butajira town since March 01/2019 to March 01/2020

4.4.2. Exclusion criteria

- Women who has been using LARC in town and included in sampling frame, but not currently living in Butajira town

4.5. Sample Size Determination

The sample size was calculated by using single population proportion formula based on the following assumptions: Proportion of implanol discontinuation in Hawassa, South Ethiopia was used, which is 16% (20) at significant level $\alpha = 0.05$, 95% confidence interval, Margin of error 5% and 10% non-response rate, the sample size was calculated by the following formula:

$$n = \frac{(Z \alpha/2)^2 P (1-P)}{d^2}$$
$$= \frac{(1.96)^2 0.16 (1-0.16)}{(0.05)^2} = 206$$

Where:

n = the required Sample size

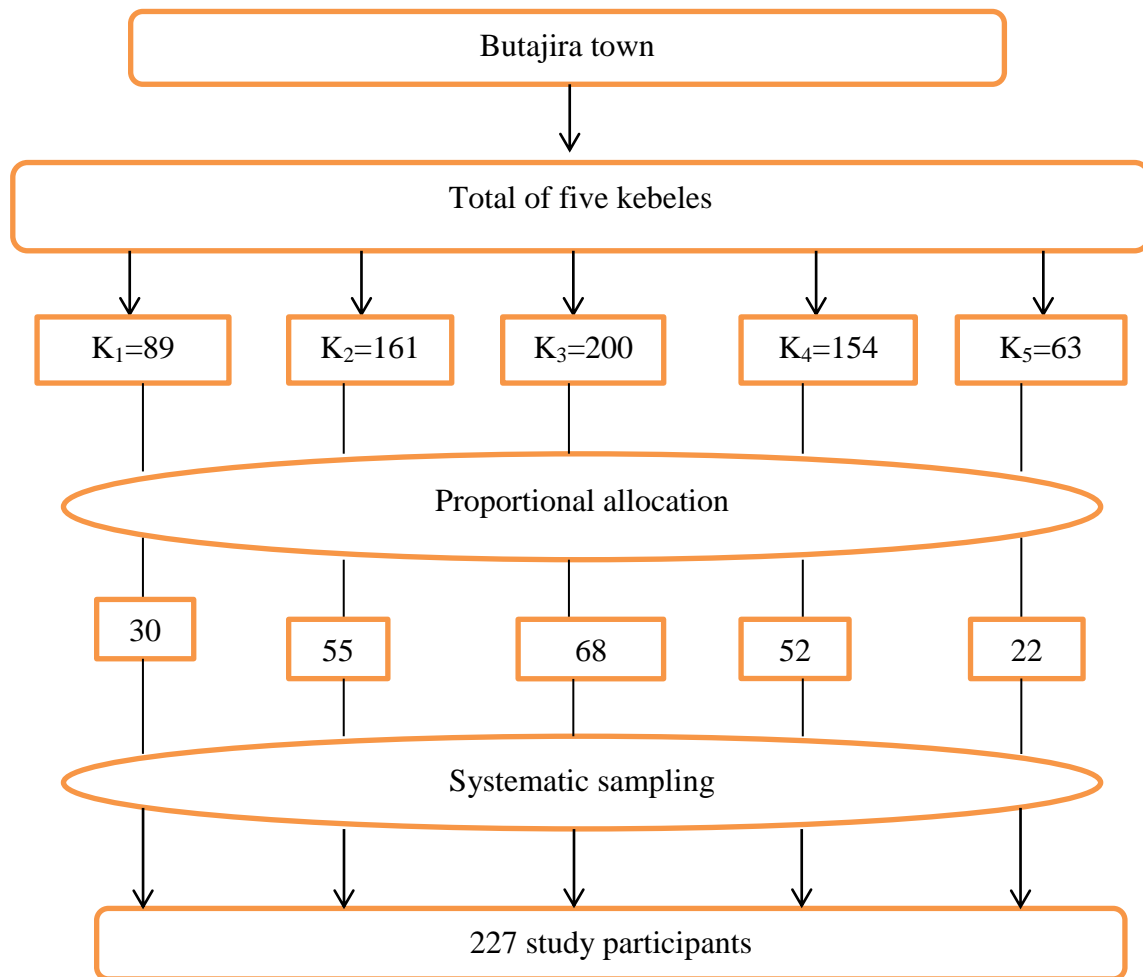
P = Proportion of LARC discontinuation (16% or P=0.16), discontinuation of implanol in Hawassa city 16%

Z = the value of the standard normal curve score corresponding to the given confidence interval (1.96)

d = the permissible Margin of error (the required precision) = 5%. By adding 10% non-response rate, total of 227 participants were recruited as study units.

4.6. Sampling Procedure

In this study, all five Kebeles in Butajira town were included. List of long acting reversible contraceptives were taken from family planning registration books of health center and hospital. For sake of maintaining confidentiality and privacy identification number was given in place of their name by researcher for each users. The identification number and address were used to select study participants. Systematic sampling method was used to select study participant until sample size was enough for each kebele. With a total of long acting reversible contraceptives in Butajira town where N= 667 and total sample size n= 227 an interval of $k = 667/227 = 3$, then every third women were selected from the list. Women who were not at home repeated visit was made and tried to decrease non response rate.



4.7. Study variables

4.7.1. Independent variables

Socio demographic characteristics

- Age
- Religion
- Marital status
- Educational status of woman
- Educational status of husband
- Occupational status of women
- Occupational status of husband
- Family income

Health system related factors

- Health extension workers availability
- Time take to reach to health institutions

Reproductive related characteristics

- Parity
- Living children
- History of abortion
- Desire of pregnancy
- Time to get pregnancy

Family planning and counseling related characteristics

- Information about LARC
- History of family planning before LARC
- Type of contraceptive before LARC
- Responsible person for choosing LARC
- Counseling service
- Satisfaction with the service

4.7.2. Dependent variables

- Discontinuation rate of LARC.

4.8.Operational Definition of Variables (18,19)

Contraceptive: an agent or device intended to prevent pregnancy.

Counseling on contraceptive: making the women aware of its long protection, side effect, and effectiveness of the method.

Discontinuation of long acting reversible contraceptives: removal of long acting reversible contraceptives within one year following insertion

Long acting reversible contraceptive: contraceptive methods which serve as 3–10 years but can be removed at any time.

Information about LARC: A woman at least had heard about LARC

Method failure: the user becomes pregnant while the method is in place.

Menstrual disruption: any deviation from women's regular menstrual cycle.

Health concern: any psychological or medically known conditions which may result fear of the use of LARC.

Side effect: when the women develop at least one side effect after LARC insertion like menstrual disruption, insertion arm pain, headache, acne, pelvic pain and others.

4.9.Data Collection Tool

Data was collected using interviewer administered pretested questionnaire. It has been prepared from reviewed literatures (13,14,19,20) and modified accordingly to suit for the study. Data collection tool address socio demographic characteristics in the first part, health system related characteristics in the second part, reproductive related characteristics in the third part and lastly contraceptive and counseling related characteristics. It has prepared first in English and then translated to Amharic then translated back to English by official language translators to evaluate its consistency. Final version of the tool was edited; Amharic questionnaire was used to collect the data from the respondents.

4.10. Data Collection Procedure

Interview technique was used to collect data with structured and pretested questionnaire. Five undergraduate Midwifery students and 2 BSc degree holder midwife and nurse as a supervisor were used. One day training was given for data collectors concerning the research objective, data collection tools and procedures, and interview methods that were supposed to be applied during data collection. The selected data collectors collected data in all five Kebeles in Butajira town from April to May 2020. Principal investigator checked the completeness of the data on daily basis and gave necessary feedback for data collectors.

4.11. Data entry and analysis procedure

The collected data was checked for completeness and was entered into Epi data 4.6.2. Then, the analysis was made with Statistical Product and Service Solutions (SPSS) versions 25. Analytical statistics was used to show the relationship between dependent and independent study variables. Variables at (P- value <0.2) detected at bivariate level were candidate for

multivariate logistic regression model to control for possible confounding variables, to examine association and to produce crude and adjusted odds ratio along with their corresponding confidence limits (95% CI). A P-value less than 0.05 was considered statistically significant.

4.12. Data quality assurance

To assure the quality of data, the questionnaire was pre-tested. Pretest was done in Addis Ababa, Gulele Sub-City, Hidasse and 03 kebele health centers on March 10-11 before conducting the major study on about 5% of the sample to check validity and reliability of questionnaire. After pre-testing the questionnaire, revision and amendment were made accordingly. Training was given for the data collectors on how to interview and check the questionnaire for completeness. The supervisors and principal investigator checked and revised the completeness of questionnaire and offer necessary feedback to data collectors.

4.13. Ethical clearance

Ethical clearance was assured prior to data collection from Institutional Review Board of School of Nursing and Midwifery, College of Health Sciences, Addis Ababa University. Authorization was obtained from health Bureau of Gurage zone and Butajira town. When willingness and verbal consent was obtained, the data collectors were begun interview. Each study participants were informed about the purpose, methods of collection, anticipated benefit and risk of study. Privacy and confidentiality was maintained throughout the data collection, analysis and result dissemination

4.14. Dissemination of the result

The result of research will be disseminated both with hard and soft copy to Addis Ababa University College of Health Sciences School of Nursing and Midwifery. The research result will be disseminated and accessed to others as source of information to do further research and even to critique the findings. It will also be provided to Health Bureau of Butajira City Administration and public health institutions in Butajira town. Finally, the soft copy will be accessible through the University library portal and attempt will be made to publish in scientific journals.

5. RESULT

5.1.Socio-demographic characteristics

A total of two hundred twenty two participants have responded to the questionnaire, making response rate of 97.8%. The age of respondents was between 20-35+ years with the mean age of 28 ± 4.9 years. One hundred forty three of the participants (64.4%) were Muslim by religion, 205(92.3%) were married and 83(37.4%) of women were house wife. More than half of respondents have monthly income of 500-1000 ETB with mean 740.50 ± 238.20 per month.

Table 1 Socio-demographic status of women who ever used LARC in 2019/2020 in Butajira town, Southern Ethiopia, 2020 (n = 222).

Variable	Frequency	Percent (%)
Woman's age		
20-24	54	24.3
25-29	83	37.4
30-34	52	23.4
35+	33	14.9
Religion		
Orthodox	63	28.4
Muslim	143	64.4
Protestant	16	7.2
Marital status		
Single	6	2.7
Married	205	92.3
Divorced	8	3.6
Widowed	3	1.4
Educational status of women		
Illiterate	45	20.3
Read and write	74	33.3
Primary	32	14.4
Secondary	43	19.4
Higher education	28	12.6
Educational status of husband (n=205)		
Illiterate	30	14.6
Read and write	72	35.1
Primary	31	15.1
Secondary	36	17.6
Higher education	36	17.6
Occupational status of women		
Merchant	41	18.5
Government employee	51	22.9
Private employee	47	21.2
House wife	83	37.4
Occupational status of husband (n=205)		
Merchant	63	30.7
Government employee	70	34.1

Private employee	48	23.4
Daily laborer	24	11.7
Family income		
<500	20	9.0
500-1000	112	50.5
1000+	90	40.5

5.2. Health system related characteristics

Majority of women had an access to get health extension workers in their area 200(90.1%) and more than half of women consumed less than 30 minutes to reach the health facilities 91(41.0%).

Table 2 Health system related characteristics of women who ever used LARC in 2019/2020 in Butajira town, southern Ethiopia, 2020 (n=222)

Variable	Frequency	Percent %
Health extension worker availability		
Yes	200	90.1
No	22	9.9
Time take to reach health institutions		
<30 minutes	91	41.0
30-60 minutes	76	34.2
+60 minutes	55	24.8

5.3. Reproductive history related characteristics of women

Reproductive history was one of the factor that was assessed in this study. More than half 115(51.8%) of the respondents had given birth one to two times. Out of this 112(56.5%) respondents had one to two alive children. Among total respondents 66(29.7%) had history of abortion and 163(73.4%) had desire to have more children.

Table 3 Reproductive history of women who ever used LARC 2019/2020, in Butajira town, Southern Ethiopia, 2020 (n=222)

Variables	Frequency	Percent %
Parity		
0	24	10.8
1	45	20.3
2	70	31.5
3+	83	37.4
Living children (n=198)		
0	4	2.0
1	45	22.7
2	67	33.8
3+	82	41.4
History of abortion		
Yes	66	29.7
No	156	70.3
Desire of pregnancy		
Yes	163	73.4
No	59	26.6
Women desire to become pregnant (n=163)		
Within one years	93	57.1
Within two years	70	42.9

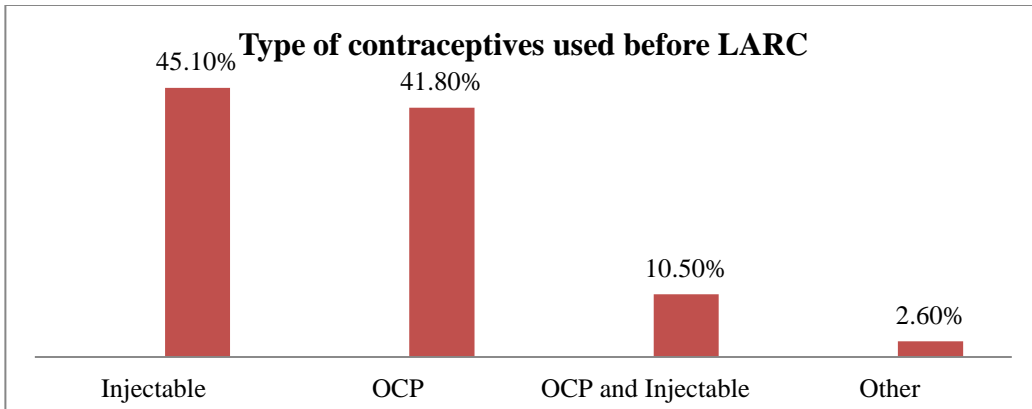
5.4. Contraceptive and counseling related characteristics

More than half 131(59.0%) of respondents had an information about long acting reversible contraceptives before insertion. The long acting reversible contraceptives had selected by women 130(58.6%) and majority 181(81.5%) of women have been using implanol. One hundred forty eight (66.7%) have been counseled about side effect of long acting reversible contraceptives and 145(65.3%) of respondents have satisfied with the service given before insertion.

Table 4 Contraceptive and counseling related characteristics of women who ever used LARC in 2019/2020 in Butajira town, Southern Ethiopia, 2020 (n=222)

Variable	Frequency	Percent %
Information about LARC		
Yes	131	59.0
No	91	41.0
Contraceptive before LARC		
Yes	151	68.0
No	71	31.9
Method selection		
My self	130	58.6%
My husband	24	10.8
Health professional	47	21.2
HEW	20	9.0
Other	1	0.5
Types of LARC women have been using		
Implanor	181	81.5
IUD	28	12.6
Jadell	13	5.9
Counseled about benefit of LARC		
Yes	180	81.1
No	42	18.9
Counseled about side effect		
Yes	148	66.7
No	74	33.3
Counseled about effectiveness		
Yes	158	71.2
No	64	28.8
Satisfaction with the service given		
Yes	145	65.3
No	77	34.7

Majority of participants had used contraceptives before the insertion of long acting reversible contraceptives, 68(45.1%) injectable followed by 63(41.8%) OCP.



Key: OCP- Oral Contraceptive Pills

Figure 2 Contraceptives history among women who ever used long acting reversible in 2019/2020 in Butajira town, Southern Ethiopia, 2020 (n=151)

5.5.Magnitude of long acting reversible contraceptives discontinuation rate

The result demonstrated that discontinuation rate among 222 women who ever used long acting reversible contraceptives during one year were 50(22.5%) and from that 39(78.0%), 7(14.0%) and 4(8.0%) discontinued implanol, Jadelle and IUD respectively. Women discontinued long acting reversible contraceptives between 3-12 months with mean of 5.9 ± 3.02 month. Majority of the women removed long acting reversible contraceptives 37(74%) over 3-6months, followed by 13(26%) over 7-12 months.

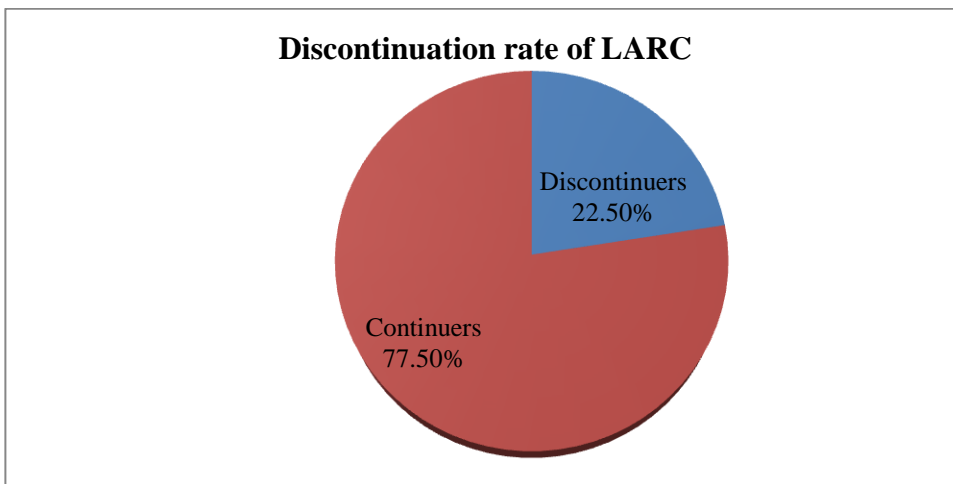


Figure 3 proportion of LARC discontinuation among LARC users in Butajira town in 2019/20 south Ethiopia, 2020 (n=222).

5.6.Reason for discontinuation of long acting reversible contraceptives

Women discontinued LARC mainly due to facing side effect 26(52%) followed by desire to have child 11(22%) and 10(20%) health concern. Most common complaints among women who faced side effect were menstrual disruption 19(73.1%), head ache 6(23%), method inconvinency 4(15.4%), weight gain 2(7.7%), insertion site arm pain 2(7.7%) and abdominal pain 2(7.7%).

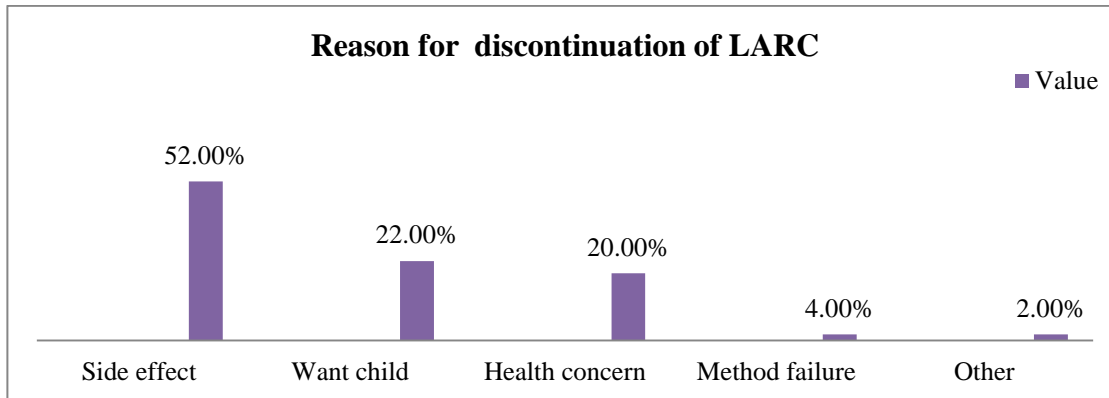


Figure 4 Reason for discontinuation among women who ever used LARC in 2019/2020 in Butajira town, South Ethiopia, 2020 (n=50).

5.7.Factors associated with discontinuation rate of long acting reversible contraceptives

Socio demographic related characteristics, health system related characteristics, reproductive related characteristics and family planning and counseling related characteristics were included in analysis to see significant association with long acting reversible contraceptives discontinuation rate. All variables were first tested in binary logistics regression. Hence, variables p value <0.2 were entered to multivariate logistics regression. Multivariate logistics regression analysis showed that time consumed to reach the health institutions, desire to have more children and counseled about the benefit of long acting reversible contraceptives before insertion were found to have statistically significant association with the discontinuation of long acting reversible contraceptives. The result demonstrated that women who had consumed 60 minutes and more to reach the health facilities six times more likely to discontinue long acting reversible contraceptives compared to women who had consumed less than 30 minutes to reach the health facilities (AOR = 6.16 (95% CI: 1.46-25.97). Women who desire to have

more children were five times more likely to discontinue long acting reversible contraceptives as compared to women who have no desire to have more children (AOR = 5.30(95% CI: 1.13-24.81). Women who were counseled about benefit of long acting reversible contraceptives more likely to continue compared to women who weren't counseled about benefit of long acting reversible contraceptives (AOR=0.08(95% CI: 0.02-0.39).

Table 5 Factors associated with discontinuation rate of long acting reversible contraceptives in Butajira town in 2019/2020, southern Ethiopia, 2020 (n=222).

Variables	Discontinuation rate of LARC		COR 95%	AOR 95%
	Discontinuers	Continuers		
Age of women				
20-24	9(18.0%)	45(26.2%)	1.45(0.41,5.15)	0.31(0.04,2.42)
25-29	20(40.0%)	63(36.6%)	2.30(0.72,7.34)	0.32(0.06,1.80)
30-34	17(34.0%)	35(20.3%)	3.52(1.07,11.64)	1.17(0.22,6.25)
+35	4(8.0%)	29(16.9%)	1	1
Occupational status of women				
Merchant	15(30.0%)	26(15.1%)	1	1
Government employee	12(24.0%)	39(22.7%)	0.53(0.22,1.32)	0.62(0.08,4.73)
Private employee	9(18.0%)	38(22.1%)	0.41(0.16,1.08)	1.65(0.24,11.29)
House-wife	14(28.0%)	69(40.1%)	0.35(0.15,0.83)	0.61(0.13,2.92)
Time take to reach the health facility				
<30 minutes	13(26.0%)	78(45.3%)	1	1
30-60 minutes	14(28.0%)	62(36.0%)	1.36(0.59,3.09)	1.81(0.47,6.99)
+60 minutes	23(46.0%)	32(18.6%)	4.31(1.95,9.55)	6.16(1.46,25.97)
Desire of pregnancy				
No	6(12.0%)	53(30.8%)	1	1
Yes	44(88.0%)	119(69.2%)	0.19(0.07,0.57)	5.30(1.13,24.81)
Counseled about benefit of LARC				
No	21(42.0%)	21(12.2%)	1	1
Yes	29(58.0%)	151(87.8%)	0.19(0.09,0.39)	0.08(0.02,0.39)
Counseled about side-effect of LARC				
No	28(56.0%)	46(26.7%)	1	1
Yes	22(44.0%)	126(73.3%)	0.29(0.15,0.55)	1.02(0.25,4.20)
Counseled about effectiveness of LARC				
No	26(52.0%)	38(22.1%)	1	1
Yes	24(48.0%)	134(77.9%)	0.26(0.14,0.51)	1.12(0.25,4.99)
Satisfied with the service given				
No	31(62.0%)	46(26.7%)	1	1
Yes	19(38.0%)	126(73.3%)	0.22(0.12,0.43)	0.31(0.06,1.50)

6. DISCUSSION

The study found that discontinuation rate was 22.5% with mean of 5.9 ± 3.0 months. This finding is higher than study done in USA, Pakistan, Vietnam and Hawassa (13,20,25,40) but lower than study done in Nepal, South Africa, Nigeria and Ambo (14,30–32). This discrepancy may be due to difference in study design, sample size and duration of the study. Moreover, it may be due to the present study included all types of long acting reversible contraceptives (Implanot, Jadelle and IUD), but other studies included only one type of long acting reversible contraceptive. In addition, it might be due to study setting as this study only done in urban area whereas other studies done in either rural or urban or in both. Finally, it may be due to educational status of women as in this study majority of women had no formal education where as in other studies majority of participants were above primary.

This study found that majority of women were younger in parallel with study done in Hawassa, South Africa and Pakistan southern Ethiopia (20,30,40). This may be due to it doesn't require for frequent visit of health institutions until they need to remove it and to keep privacy. Young may have intended to have children as a result high discontinuation rate of long acting reversible contraceptives.

The study revealed that the main reason for discontinuation of long acting reversible contraceptives was facing side effect, desire to conceive and health concern in line with the study in Australia, Vietnam, India and South Africa (12,13,30,33). Menstrual disruption was main side effect faced among discontinuers. Menstrual irregularity may not cause for serious health problem but interferes with daily activity especially on sexual activity with their husband. Discontinuation due to side effect was a result of in adequate counseling and information on possible side effect before insertion of long acting contraceptives. Giving adequate counseling and information on possible side effect could ensure the continuation on long acting reversible contraceptives.

From independent factors time consumed to reach health institutions desire for having more children and pre insertion counseling were predictors for discontinuation of long acting reversible

The odds of time consumed 60minutes and more to reach health facility was six times more likely to discontinue long acting contraceptives compared to women who have consumed less than 30 minutes to reach to the health facilities which is consistent with study in Pakistan (40). This is related to the fact that unable to get the health facility nearby and traveling long distance make difficult repeated visits this may result in discontinuation of long acting reversible contraceptives. In addition in present study 46% of discontinuers consumed >60 minute to reach the health facility.

The odds of desire to have more children were five times more likely to discontinue long acting reversible contraceptive which is inconsistent with study in Debre Tabor town (18). This might the difference in denominator. In present study the denominator was all long acting reversible contraceptives but study in Debre Tabor the denominator was all women who request removal of long acting contraceptive. Moreover, it may be due to difference in educational attainment of respondents. In present study most of the participants had no formal education compared to the study participants in Debre Tabor, most of the respondents were above primary. Lastly, it might be due to sociocultural difference of participants across the study area.

Present study showed that women counseled about benefit of the long acting reversible contraceptives were less likely discontinued long acting reversible contraceptives compared to women who were not counseled about the benefit of long acting contraceptive methods which is inconsistent with the study done in Hawassa, Dale district of south Ethiopia and Debre Tabor (18–20). In other studies pre insertion counseling about benefit of long acting reversible contraceptives neither risk factor nor protective factor for discontinuation of long acting reversible contraceptives. This discrepancy might be due to sociocultural difference. Pre insertion counseling about benefit of long acting reversible contraceptives helps for ensuring continuation rate by tolerating side-effects.

7. Strength and Limitation of the study

7.1.Strength of study

- ✓ The study can be a base for further similar study or large scale study

- ✓ Add significant contribution for Butajira town health bureau and Butajira town public health facilities.

7.2.Limitation of the study

- ✚ Since data on dependent and independent variables was collected at the same point in time, no causal interpretation can be made of the relationships between variables.
- ✚ Result not generalizable where place of residence is rural
- ✚ Study may had recall bias of respondents
- ✚ The study may have social desirability biases.

8. CONCLUSION AND RECOMMENDATION

8.1.Conclusion

The study concluded that long acting reversible contraceptives discontinuation is high (22.5%). The main reasons for discontinuation of long acting reversible contraceptives were facing side effect, desire to conceive and health concern. Time takes to reach health institutions, desires for pregnancy and counseled about benefit of long acting contraceptives were predictors of long acting reversible contraceptives.

8.2.Recommendation

To Butajira town health bureau

- Great effort should be made to address the perception and understanding through mass media or health education in order to ensure continuation of long acting reversible contraceptives.
- Preparing separate room for counseling in order to maintain privacy and confidentiality of client.
- Implementing and strengthen regular supervision on how clients are counseled.
- By collaborating with Butajira city administration should work on infrastructures like roads and increasing number of health centers.

To heath care providers

- Health care providers to provide proper and adequate pre insertion counseling based on prepared national standard manual.
- Adequate pre insertion counseling on possible side effects

To Researchers

- Further researches must be done by incorporating both qualitative and quantitative methods to see the extent of problem and to find out solution.

To Nursing and Midwifery practice

The result showed higher discontinuation rate of long acting contraceptives and the main reason for discontinuation was facing of side effect. Also result revealed that health care providers also involved in decision making of selecting long acting reversible contraceptives. This finding will be used to correct such problems and filling gaps in providing of family planning service.

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ADDIS ABABA UNIVERSITY
COLLEGE OF HEALTH SCIENCE
SCHOOL OF NURSING AND MIDWIFERY

ANNEX

Annex I: English version Information Sheet

Greeting!

Hello dear respondent! My name is _____ and I am working as data collector for the study being conducted in this town by Ms. Haregwa Asnake who is studying for her master's degree at Addis Ababa University School of Nursing and Midwifery postgraduate study. You are selected to be one of the participants in this study and you are kindly requested to answer for questionnaire.

Study title– The discontinuation rate of long acting reversible contraceptives and factors associated among reproductive age women in Butajira town, south Ethiopia, 2020.

Procedure and duration: there are different questions to be answered. Interview questionnaire will be used which take **15-20** minutes.

Risks: the risks of being participating in this study are minimal, only taking few minutes.

Benefit- at this moment you may not get any direct benefit by being involved in this study but the information you provide is very important to solve problem associated with long acting contraceptive discontinuation

Confidentiality: The information that you provide us will be confidential. The questioner will be coded to exclude showing your name on questionnaire and consent form.

Rights: Participation in this study is voluntary. You have the right to declare not to participate in this study and you have the right to withdraw from participating at any time.

Contact address: If there is any question or unclear idea any time about the study or the procedures, do not hesitate to contact and speak to principal investigators with cell

phone number: **0923689556** or e-mail address haregasnake23@gmail.com

I have read this form and I comprehend and understand all condition stated above.

Are you willing to participate in this study?

1. No (say thank you) 2. Yes (continue interviewing)

Annex II: Amharic version information sheet

ጤና ይስጥልኝ

ሰላም ውድ ተሳታፊዎች ስሜ _____ ይባላል። እኔ በዚህ ሆስፒታል በሚካሄደው ጥናት ላይ ለወ/ሪት ሀረግ አስናቀ በአዲስ አበባ ዩኒቨርሲቲ የጤና ሳይንስ ኮሌጅ በነርቲንግ እና ሚድዋይዲሪ ት/ት ክፍል የድህረ ምረቃ ማጠናቀቂያ መረጃ ሰብሳቢ ሆኜ እየሰራሁ እገኛለሁ። እርሶ የጥናቱ ተሳታፊ ሆነው ስለተመረጡ መጠይቁ ላይ ያሉትን ጥያቄዎች እንዲመልሱልኝ ስል በትህትና እጠይቃለሁ።

የጥናቱ እርጅን - የረጅም ጊዜ የወሊድ መቆጣጠሪያ የማቋረጥ ሂደት በቡታጅራ ከተማ ውስጥ ባለፈው አንድ አመት ውስጥ ያለበት ደረጃ እና ተጓዳኝ ምክንያቶች።

የጥናቱ ሂደት እና የሚወስደው ጊዜ - በመጠይቁ ላይ የተለያዩ ጥያቄዎች ተካተዋል። መጠይቁን ለመሙላት 15 -20 ደቂቃ ሊወስድ ይችላል።

ተጋላጭነት - በጥናቱ ላይ በመሳተፍ ለጉዳት የመጋለጥ እድሎ አነስተኛ ነው። እሱም የተወሰኑ ደቂቃዎችን ሊያበክኑ ይችላሉ።

ተጠቃሚነት- በዚህ ጥናት በመሳተፍ በቀጥታ የሚያገኙት ምንም አይነት ጥቅም ባይኖርም የሚሰጡን መረጃ ግን የረጅም ጊዜ የወሊድ መቆጣጠሪያ ማቋረጥ ላይ ያሉትን ችግሮች ለመፍታት ይረዳል።

ሚሰጥራዊነት - የሚሰጡት መረጃ ሚስጥራዊነቱ የተጠበቀ ሲሆን በመጠይቁ ላይም ስሞት አይጠቀስም።

ሙብቶች - በዚህ ጥናት ላይ የሚሳተፉት በፍቃደኝነት ሲሆን በማንኛውም ሰአት ከጥናቱ መውጣት (ማቋረጥ) ይችላሉ።

አድራሻ - ስለጥናቱም ሆነ ስለሂደቱ ማንኛውም አይነት ጥያቄ ወይም ግልፅ ያልሆነ ነገር ካለ በሚከተለው አድራሻ መጠየቅ ይችላሉ። ስ.ቁ: 0923689556 ወይም በኢሜል አድራሻ: haregasnake23@gmail.com

ከላይ የተጠቀሱትን ሁነቶች አንብቤ ተረድቻለሁ

በዚህ ጥናት ላይ ለመሳተፍ ፍቃደኛ ነዎት?

- 1. አይደለሁም (አመሰግናለሁ) 2. ፍቃደኛ ነኝ (ጥያቄውን መቀጠል)

Annex III: English version Consent form

I have read the information sheet concerning this study (or have understand verbal explanation) and I understand what will be required of me and what will happen to me if I take part in it. I also understand that any time I may withdraw from this study without giving a reason and without me and my families' routine service utilization being affected for my refusal.

Participant's signature _____ Date _____

Interviewer signature certifying that the informed consent will be given verbally.

Interviewer's name _____

Interviewer's signature _____

Date _____

May I continue the interview?

1. Yes _____ continue the interview
2. No _____ Stop the interview and thank the respondent

Result: (to confirm for completeness)

- A. Questionnaire completed _____
- B. Questionnaire partially completed _____
- C. Participant refused _____
- D. Others (please specify)

Checked by supervisors

Supervisor's Name _____

Supervisor's Signature _____

Date _____

Annex IV: Amharic version consent form

ጥናቱን አስመልክቶ የተሰጠውን ማብራሪያ አንብቤአለሁ (በቃል) ተብራርቶልኛል። ስለሆነም በጥናቱ ላይ ለመሳተፍ ከኔ የሚጠበቁትን ነገሮች እና በመሳተፌ የሚደርሱብኝን ነገሮች ተረድቻለሁ። በማንኛውም ሰዓት ምንም ዓይነት ምክንያት ሳልሰጥ ጥናቱን ማቋረጥ እንደምችል ተረድቻለሁ። ጥናቱን በማቋረጥ ምክንያት እኔም ሆነ ቤተሰቦቼ በምናገኛቸው ገልግሎቶች ላይ ተፅኖ አይኖረውም።

የተሳታፊው ፊርማ _____ ቀን _____

የስምምነት ቅፅ ስለመሞላቱ የሚያረጋግጥ የመረጃ ሰብሳቢው ፊርማ

የመረጃ ሰብሳቢው ፊርማ _____

የመረጃ ሰብሳቢው ስም _____

ቀን _____

ቃለ ምልልሱን መቀጠል እችላለሁ?

1. አዎ
2. አይደለም
- 3.

ውጤት

ሀ. መጠይቁ ሙሉ ለሙሉ ተሞልቷል

ለ. መጠይቁ በከፊል ተሞልቷል

ሐ. ተሳታፊው አልተስማማም

መ. ሌላ ካለ ይጥቀሱ

በተቆጣጣሪዎች ተፈትሽዋል

የተቆጣጣሪው ስም _____ የተቆጣጣሪው ፊርማ _____ ቀን _____

Annex V: English version questionnaire

PART I: SOCIO DEMOGRAPHIC			
SN	Question	Response	Remark
101	What is your age in years?	_____years	
102	What is your religion?	1. Orthodox Christian 2. Muslim 3. Protestant 4. Catholic Others (specify)_____	
103	What is your marital status?	1. Single 2. Married 3. Divorced/separated 4. Widowed Other(specify)_____	
104	What is your educational status?	1. Illiterate 2. Read and write 3. Primary 4. Secondary 5. Higher education/ university/ college	
105	What is your husband educational status?	1. Illiterate 2. Read and write 3. Primary 4. Secondary 5. Higher education/ university/ college	
106	What is your occupational status?	1. Merchant 2. Government employed 3. Private employed 4. House wife Other (specify)_____	
107	What is your husband occupational status?	1. Merchant 2. Government employed 3. Private employed 4. Daily laborer Other (specify)_____	
108	What is your family monthly income per month?	_____ETB	

Part II: health system related characteristics

201	Are health extension workers available in your area?	1. Yes 2. No	
202	How much time takes to reach health institutions.	_____ minutes	

Part III: Reproductive related characteristics

301	How many times you gave birth?	_____	
302	How many numbers of living children did you have?	_____	
303	Have you ever faced abortion?	1. Yes 2. No	
304	Did you have desire for pregnancy?	1. Yes 2. No	
305	If question-304-yes, at what time you plan?	_____ years	

Part IV: Contraceptive and counseling related characteristics

401	Did you have information about LARC before insertion?	1. Yes 2. No	
402	Have you ever used any contraceptive before LARC?	1. Yes 2. No	
403	If question-402-yes, what types of contraceptive have you used?	1. OCP 2. Injectable 3. OCP and injectable Other (specify) _____	
404	What type of LARC have you been using?	1. Implanol 2. Jadelle 3. IUD	
405	Who made the choice to use LARC?	1. My self 2. My husband 3. Health Professional 4. HEW Other (specify) _____	
406	Have you been counseled about benefit of LARC?	1. Yes 2. No	
407	Have you been counseled about side effect before insertion of LARC?	1. Yes 2. No	
408	Have you been counseled about effectiveness of the method before insertion of LARC?	1. Yes 2. No	
409	Have you been satisfied with the service given during LARC insertion?	1. Yes 2. No	
410	Have you discontinued LARC?	1. Yes 2. No	
411	How long you use the LARC?	_____	

412	What is your reason for discontinuation?	<ol style="list-style-type: none"> 1. Side effect 2. Health concern 3. Want child 4. Method failure 5. Method shift 6. Method expulsion 7. Husband disapproved Others (specify)_____	
413	If you discontinued because of side effect, what kind of side effect have you faced?	<ol style="list-style-type: none"> 1. Menstrual disruption 2. Weight gain 3. Unusual head ache 4. Insertion arm pain 5. Pelvic pain 6. Infection 7. Inconvenience of method Other (specify)_____	

AnnexVI: በአማርኛ የተዘጋጀ መጠይቅ

ተ. ቁ	የተሳታፊዎች ማሳያ ዳራ	
	ጥያቄ	መልስ
101	እድሜዎት ስንት ነው?	_____ አመት
102	ሀይማኖትዎ ምንድነው?	<ol style="list-style-type: none"> 1. ኦርቶዶክስ 2. ሙስሊም 3. ፕሮቴስታንት 4. ካቶሊክ ሌላ ካለ ይጠቀሱ _____
105	የጋብቻ ሁኔታ ምን ይመስላል?	<ol style="list-style-type: none"> 1. ያላገባች 2. ያገባች 3. የፈታች 4. የትዳር አጋር የሞተባት ሌላ ካለ ይጠቀሱ _____
106	የትምህርት ደረጃዎት ምን ይመስላል?	<ol style="list-style-type: none"> 1. መደበኛ ትምህርት ያልተከታተለች 2. ማንበብ እና መጻፍ የምትችል 3. መጀመሪያ ደረጃ ያጠናቀቀች 4. ሁለተኛ ደረጃ ያጠናቀቀች 5. ከፍተኛ ትምህርት የተከታተለች (ኮሌጅ/ ዩኒቨርሲቲ)
107	የባለቤትዎት የትምህርት ደረጃ ምን ይመስላል?	<ol style="list-style-type: none"> 1. መደበኛ ትምህርት ያልተከታተለ 2. ማንበብ እና መጻፍ የሚችል 3. መጀመሪያ ደረጃ ያጠናቀቀ 4. ሁለተኛ ደረጃ ያጠናቀቀ 5. ከፍተኛ ትምህርት የተከታተለ (ኮሌጅ/ ዩኒቨርሲቲ)
108	አሁን በምን ስራ ላይ ተሰማርተው ይገኛሉ?	<ol style="list-style-type: none"> 1. በንግድ ስራ 2. የመንግስት ሰራተኛ 3. የግል ተቀጣሪ 4. የቤት እመቤት ሌላ ካለ ይጠቀሱ _____

109	ባለቤቶች በምን ስራ ላይ ተሰማርተው ይገኛሉ?	1. በንግድ 2. የሚንግስት ሰራተኛ 3. የግል ተቀጣሪ 4. የጉልበት ሰራተኛ ሌላ ካለ ይጠቀሱ	
110	የቤተሰብ ወርሃዊ ገቢ ምን ያህል ነው?	_____ የኢትዮጵያ ብር	

ክፍል ሁለት፡ ከጤና ስርአት ጋር የተያያዙ ሁኔታዎች

201	በአካባቢዎች የጤና ኤክስቴንሽን ባለሙያዎች አሉ	1. አዎ 2. አይደለም	
202	ከቤትዎ ተነስተው ወደ ጤና ተቋማት ለመድረስ ምን ያህል ሰዓት ይወስዳል?	_____ ደቂቃ	

ክፍል ሦስት፡ የእናትየዋ የወሊድ ታሪክ

301	እስካሁን ስንት ጊዜ ወልደው ያውቃሉ?	_____	
302	አሁን በህይወት ያሉት ልጆች ምን ያህል ናቸው?	_____	
303	የፅንሰ መቋረጥ ገጥሞዎች ያውቃል?	1. አዎ 2. አይደለም	
304	ከዚህ በኋላ የመጠነ ስኬት አለዎት?	1. አዎ 2. አይደለም	
305	ለጥያቄ 304 መልስዎ አዎ ከሆነ ከምን ያህል ጊዜ በኋላ ነው የመጠነ ስኬት ያለዎት?	_____ አመት በኋላ	

ክፍል ሦስት፡ የወሊድ መቆጣጠሪያ እና የማማከር አገልግሎትን የተመለከቱ ሁኔታዎች

401	ስለረጅም ጊዜ የወሊድ መቆጣጠሪያ መንገድ ከመጠቀም በፊት መረጃ ነበረዎት?	1. አዎ 2. አይደለም	
402	አሁን ከሚጠቀሙት መከላከያ በፊት ሌላ መከላከያ ተጠቅመው ያውቁ ነበር?	1. አዎ 2. አይደለም	
403	ለጥያቄ 402 መልስዎ አዎ ከሆነ የሚጠቀሙት መከላከያ ምን ዓይነት ነበር?	1. በአፍ የሚወሰድ 2. በመርፌ የሚሰጥ	

		3. በአፍ እና በመርፌ የሚወሰድ ሌላ ካለ ይጥቀሱ	
404	ባለፈው አንድ አመት ውስጥ ሲጠቀሙት የነበረው / እየተጠቀሙት ያለው የረጅም ጊዜ የወሊድ መቆጣጠሪያ ምን አይነት ነው?	<ol style="list-style-type: none"> 1. በክንድ የሚሰጥ እና ለ ሶስት አመታት የሚያገለግል 2. በክንድ የሚሰጥ እና ለ አምስት አመታት የሚያገለግል 3. በማህፀን የሚቀመጥ ሉፕ 	
405	የረጅም ጊዜ መከላከያውን እንዲጠቀሙ የመረጠልዎት ማነው?	<ol style="list-style-type: none"> 1. በራሴ 2. ባለቤቴ 3. የጤና አገልግሎትን የሚሰጠው ሰው 4. የጤና ኤክስቴንሽን ባለሙያዎች <p>ሌላ ካለ ይጥቀሱ</p>	
406	የረጅም ጊዜ የወሊድ መከላከያ ከመጠቀም በፊት ስለጥቅሙ ምክር ተሰቶት ነበር?	<ol style="list-style-type: none"> 1. አዎ 2. አይደለም 	
407	የረጅም ጊዜ የወሊድ መከላከያ ከመጠቀም በፊት ስለሚያስከትላቸው የጎንዮሽ ጉዳዮች ምክር ተሰቶት ነበር?	<ol style="list-style-type: none"> 1. አዎ 2. አይደለም 	
408	የረጅም ጊዜ የወሊድ መከላከያ ከመጠቀም በፊት ስለውጤታማነቱ ምክር ተሰቶት ነበር?	<ol style="list-style-type: none"> 1. አዎ 2. አይደለም 	
409	በተሰጠዎት አገልግሎት እረክተው ነበር?	<ol style="list-style-type: none"> 1. አዎ 2. አይደለም 	
410	የረጅም ጊዜ የወሊድ መቆጣጠሪያውን አቋርጠዋል?	<ol style="list-style-type: none"> 1. አዎ 2. አይደለም 	
411	ለምን ያህል ጊዜ ነው የረጅም ጊዜ ወሊድ መከጣጠሪያውን የተጠቀሙት?	_____ ወራት	
412	የረጅም ጊዜ ወሊድ መቆጣጠሪያውን ያቋረጡበት ምክንያት ምን ነበር?	<ol style="list-style-type: none"> 1. በጎንዮሽ ጉዳቱ ምክንያት 2. በጤና ጉዳይ 3. ልጅ ስለምፈልግ 4. ውጤታማ ስላልሆነ 5. ሌላ መጠቀም ስለምትፈልግ 	

		6. ከነበረበት ቦታ ወደ ውጭ ሰለወጣ 7. ባለቤቱ ስለተቃወመኝ ሌላ ካለ ይጥቀሱ_____	
413	በጎንዮሽ ጉዳቱ ምክንያት ከሆነ ያቋረጡት ምን አይነት የጎንዮሽ ጉዳት ነበር ያጋጠመዎት?	1. የወር አበባ መዘባት 2. ክብደት መጨመር 3. ያልተለመደ እራስ ምታት 4. የክንድ ህመም 5. የሆድ ህመም 6. ኢንፌክሽን 7. አለመመቻት ሌላ ካለ ይጥቀሱ_____	

