

Magnitude of Reversible Contraceptive Discontinuation and Associated Factors Among Women Attending Antenatal Care at Public Health Institutions in Harar, Eastern Ethiopia 2021

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1. Abstract

Contraceptive discontinuation is the phenomena of starting a contraceptive method and then stopping it within one year of its use. An analysis of Demographic and Health Surveys (DHS) conducted in 34 countries estimated that among women who had ever used a modern method, about 38% discontinued using a modern method. Ethiopia demographic and health survey 2016 reported that 35% discontinued their contraceptive method. Contraceptive discontinuation is one of a worldwide problem that has a negative consequence on maternal, neonatal and infant health. Twenty-five million out of 74 million unintended pregnancies resulted from contraceptive discontinuation and it account 33% of unintended birth and 35% of unintended pregnancy. Twenty-five million out of 74 million unintended pregnancies resulted from contraceptive discontinuation and it account 33% of unintended birth and 35% of unintended pregnancy. Determining the magnitude and factors associated with reversible contraceptive methods is crucial to make appropriate plans and intervention measures. The finding of this study was important to improve utilization of access of different contraceptive methods and alleviate barriers and strengthen family planning services.

1.1. Objective

To assess magnitude of discontinuation of reversible contraceptive and associated factors among women Attending Antenatal Care at Public Health Institutions in Harar, Eastern Ethiopia 2021.

1.2. Methodology

Institutions based cross sectional study was conducted on 333 pregnant women who visit ANC service at Public Health Institutions and the study was conducted in Hiwot Fana Specialized University hospital and Jugol hospital from May 15 – 31/2021. Sample was allocated proportionately and study participant was selected by Systematic random sampling. Collected and checked data were entered in to Epi Data software version 3.02 and exported and analyzed using SPSS version 21. Descriptive statistics were used to determine prevalence such as frequency, percentage, mean and ratio. Both Bivariate and multiple logistic regressions were used to observe the association between the outcome variable and associated factors. P value less than 0.20 in Bivariate analysis was transferred to multivariate analysis and P value less than or equal to 0.05 was considered as level of statistically significance.

1.3. Result

The overall magnitude of reversible contraceptive on this study was 12.5% (95% CI: 8.1%, 14.6%). Mothers who had ever experienced side effect, Mothers who had not discussing on contraceptive with husband, decision maker on number of child, women want to have more children had significantly associated with the outcome variables.

1.4. Conclusion and Recommendation

one of the major reason for discontinuation of reversible contraceptive were fear of side effect there for provision of effective counseling during ANC visit is significantly important.

2. Introduction

The contraceptive discontinuation is the phenomena of starting a contraceptive method and then stopping it within one year of its use [1]. It is an abandonment of contraceptive method utilization among women who ever use contraception for any reason [2]. Literatures report different reasons and factors for discontinue specific methods, where the major factors reported include Age, parity, family size, decision maker to use Modern Contraceptive (MC), partner supports, perceived benefit to the family, perceived MC harm, duration of contraceptive use, counseling, desired number of children and type of contraceptive [3]. An analysis of Demographic and Health Surveys (DHS) conducted in 34 countries estimated that among women who had ever used a modern method, about 38% discontinued using a modern method of women in spite of the continuing need for family planning [4]. Ethiopia Demographic and Health Survey (EDHS) 2016 reported that 35% discontinued their contraceptive method [5].

2.1. Statement of the Problem

Contraceptive discontinuation is one of a worldwide problem that has a negative consequence on maternal, neonatal and infant health. Twenty- five million out of 74 million unintended pregnancies resulted from contraceptive discontinuation and it account 33% of unintended birth and 35% of unintended pregnancy according to a study conducted in 36 developing countries [6]. The discontinuation rates are highest in sub-Saharan Africa where the majority of women in 13 of 18 countries have discontinued using contraception. In countries outside of sub-Saharan Africa, the discontinuation rates vary between 19 and 36% [7]. In Ethiopia 12 months contraceptives discontinuation rate were 35% that varied by the method of contraceptive; the discontinuation rate was 70%, for oral contraceptive pills, and 38% for injectable methods [8]. Contraceptive discontinuation is a public health concern that has a negative effect on women's reproductive health outcomes [9]. A high proportion of contraceptive discontinuation without the desire of women to get pregnant is associated with unintended pregnancies, unwanted births and unsafe abortions which have increased risks of pregnancy and childbirth related maternal morbidity and poor infant and child health outcomes [10]. Even those few studies conducted on Magnitude and Reason for Discontinuation of Reversible Contraceptive in Ethiopia, as far as my knowledge concerned there is no sufficient information or study conducted in my study area there for this study will try to fill the information gap which was not address by other researchers.

2.2. Significance of the Study

Determining the magnitude and factors associated with reversible contraceptive methods is crucial to make appropriate plans and intervention measures. The finding of this study was important for concerned bodies like local non-governmental organizations working on family planning, health care managers, health profes-

sionals as well as different stakeholders and to improve utilization of access of different contraceptive methods and alleviate barriers and strengthen family planning services. Additionally, it will help for other researchers as a base line data.

3. Objective

3.1. General Objective

To assess magnitude of discontinuation of reversible contraceptive and associated factors among women Attending Antenatal Care at Public Health Institutions in Harar, Eastern Ethiopia 2021.

3.2. Specific Objective

To determine magnitude of discontinuation of reversible contraceptive and associated factors among women Attending Antenatal Care at Public Health Institutions In Harar, Eastern Ethiopia 2021.

To identify factors associated with discontinuation of reversible contraceptive and associated factors among women Attending Antenatal Care at Public Health Institutions In Harar, Eastern Ethiopia 2021.

4. Methodology

4.1. Study Area and Period

The study was conducted in Hiwot Fana Specialized University hospital and Jugol hospital from May 15 – 31/2021. Jugel hospital was established in 1902. It has 105 inpatient beds. Hiwot Fana Specialized University serves as a referral hospital for the entire Eastern part of Ethiopia including Eastern Oromia, Dire Dawa City Administration, Somali Regional State and the Harar Regional State. Different ward and clinics were found in both hospitals. Maternal and child health care clinics are the one among those.

4.2. Study Design

Institutional based cross-sectional study design was use to conduct the study.

5. Populations

5.1. Source population

All pregnant women visiting the ANC clinic at HFUSH and Jugol hospital 2021.

5.2. Study Population

Randomly selected pregnant women attending Antenatal care clinic at HFUSH and Jugol hospital 2021.

6. Eligibility Criteria

6.1. Inclusion Criteria

Pregnant mother who come for ANC service and use modern types of reversible contraceptive before current pregnancy.

6.2. Exclusion Criteria

- Seriously ill women
- Women who are unable to communicate
- Women who are not willing full to participate

6.3. Sample Size Determination

Sample size was determined by using single population proportion formula with (27%) of magnitude reversible contraceptive which was taken from study conducted in Humera town (21) [11] after adding 10% non-response rate the final sample size will be come 333.

6.4. Sampling Technique and Procedure

In the town there are 3 Public hospital were found among those two hospital Jugul and HFSUH was selected by lottery method. Based on the data obtained from the two hospitals the total number of pregnant women having ANC on Average monthly were in HFSUH were 340 while in Jugul was 270 in both institutions also were 610. After obtaining this data the sample size was proportionally allocated to both institutions and study participants were selected by systematic random sampling techniques.

7. Study Variable

7.1. Dependent Variable

Reversible contraceptive discontinuation.

7.2. Independent Variable

- Socio-demographic character: age, religion, occupation, education, husband opposition and husband go abroad.
- Obstetric factors: number of children, parity, abortion and desire for pregnancy
- Method related factors: side effect and contraceptive type.
- Quality of family planning service: counseling and appointment for follow-up.

7.3. Data Collection Tool and Procedure

A semi- structure questioner was developed by English version after literature review and it was translated into local language and return back to English version to check its consistency. The questioner had 3 parts socio-demographic, Reproductive characteristics, Contraceptive discontinuation characteristics. Data was collected by face to face interview.

7.4. Data Processing and Analysis

Data checking and cleaning was done by principal investigators on daily basis during collection before actual analysis and data entry was done by Epi- data 3.02 and Analysis was done using statistical software for social sciences (SPSS) 21.0. The Uni-variate analysis such as proportions, percentages, ratios, frequency distributions and appropriate graphic presentations as well as measures of central tendency and measures of dispersion were made. Multiple logistic regression analysis was used for better prediction of determinants and to reduce bias due to confounders and those variables with P-valueless than 0.20 will entered in to multiple logistic regression analysis. Associations with P - value less than 0.05 will be declared as statistically significant at 95% confidence level.

7.5. Data Quality Assurance

Data quality assurance mechanisms were instituted at several points to ensure the quality of the data. Before the data collection, the data collection instrument was pre-tested by taking 5% of the total sample. Data collector and supervisor were trained for two days on objective of the study, method of data collection and discussed thoroughly on the tools prepared for data collection. The data was coded carefully in order to increase accuracy and quality of data.

7.6. Ethical Considerations

Before beginning data collection, ethical clearance letter was obtained from Harar Health Science College Research Ethics Review Committee and it was submitted to the study organization and consent was obtained from hospital CEO and Permission was obtained from study institution. All the participants were informed the purpose, advantages and disadvantages, there have the right to be involved or not as well as they can withdraw from the study any time they want. Informed verbal consent was obtained from all participants. Confidentiality was maintained by avoiding names and other personal identification.

8. Result

8.1. Socio Demographic Characteristics of the Respondents

Majority 176 (52.4%) of respondents were between the age group 18 -24 years with mean age of 28.24 and standard deviation of (SD \pm 4.978). Regarding marital status majority 307 (92.2%) of the respondent were married and Most of respondents 144 (43.2%) was Muslim religion follower. Average monthly income ranges from 500 up to 18,000 birr with mean of 6634.47 and standard deviation of (SD \pm 4101.11) (Table 1).

Table 1: Socio-demographic characteristics of pregnant women who visit ANC service at Public Health Institutions In Harar, Eastern Ethiopia 2021 (n = 333)

Variables	Frequency	Percentage
Age		
18-24	176	52.4
25-34	126	38.4
>35	31	9.2
Educational status		
No formal education	189	56.8
formal education	144	43.2
Religion		
Muslim	144	43.2
Orthodox	136	40.8
Protestant	46	13.8
Catholic	3	0.9
Other	4	0.01
Marital status		
Married	307	92.2
Not Married*	26	7.8
Monthly income		
<500	8	2.4
5-1500	102	30.6
>1500	223	73

Other*= single, divorced, widowed

8.2. Magnitude of Reversible Contraceptives Discontinuation

The overall magnitude of reversible contraceptive on this study was 12.5% (95% CI: 8.1%, 14.6%).

9. Reproductive Characteristics

Most of the respondents 162 (48.2%) had more than three live births. Majority 328 (97.6%) and 303 (91.1%) had primigravida and want to Have too more children. Regarding abortion 328 (98.5

%) of respondent had no history and 30 (8.9%) mother had desire to have four and above child and husband 301(89.6) was decision maker on number child (Table2).

10. Contraceptive Histories

Majority of the respondent was used injectable contraceptive. Regarding side effect 291 (87.5%) replied that there had not experienced. Only 60 (18.8%) replied that health providers advise them about contraceptive (Table 3).

Table 2: Reproductive characteristics of pregnant women who visit ANC service at Public Health Institutions In Harar, Eastern Ethiopia 2021 (n = 333)

Characteristics	Variables	Frequency	Percent
No. of live births	2-Jan	127	37.8
	4-Mar	162	48.2
	5 and above	44	14
Having any pregnancy before	Yes	5	2.4
	No	328	97.6
Want to Have too more children	Yes	30	8.9
	No	303	91.1
History of abortion	Yes	5	1.5
	No	328	98.5
Respondents age at first pregnancy:	Yes	39	11.6
	No	297	88.4
Hx of child death	Yes	42	12.5
	No	291	87.5
Children desired to you have	3-Jan	303	91.1
	4 and above	30	8.9
Husbanded want to have additional child	Yes	60	18.8
	No	273	81.3
Decision maker on number child	wife	29	8.9
	husband	301	89.6
	other	3	1.5

Health Institutions In Harar, Eastern Ethiopia 2021 (n = 333).

Table 3: Contraceptive characteristics of pregnant women who visit ANC service at Public Health Institutions In Harar, Eastern Ethiopia 2021 (n = 333)

Variables		Frequency	Percent
Types of contraceptive used	pill	130	39
	injectable	144	43.3
	Implant	43	12.9
	IUCD	16	4.8
Are you discontinued that contraceptive	Yes	32	9.7
	No	301	91.3
If no how long used since you discontinued that contraceptive	<= 6month	6	18.8
	7-12 month	16	50
	> = 13 month	10	31.2
If yes reason for discontinued your contraceptive	Side effects	7	21.9
	other	25	78.1
Have you ever experienced any side effect	Yes	42	12.5
	No	291	87.5
Health providers advice you on contraceptive	yes	303	91.1
	no	30	8.9
Health providers give appointment to you	Yes	60	18
	No	273	82
Know about side effect	yes	30	8.9
	no	301	89.1

11. Factor Associated with Discontinuation of Reversible Contraceptive

In Bivariate analysis, maternal age, Health provider's advice on contraceptive, History of abortion, was associated with discontin-

uation of reversible contraceptive at a p-value less than 0.20. After control confounder on multivariable analysis ever experienced any side effect, discussing on contraceptive with husband and Decision maker on number of child were significantly associat-

ed. Those mothers who had ever experienced any side effect eight times (AOR=8.10, 95% CI: 3.01 - 21.79) and Mothers who had not discussing on contraceptive with husband three times (AOR=3.16, 95% CI: 1.10 - 9.04) and Decision maker on number of child were

two times (AOR=2.56, 95% CI: 1.85 - 7.93) and women want to have more children were three times (AOR= 2.84, 95% CI: 1.45 - 6.98) more likely associated with discontinuation of reversible contraceptive (Table 4).

Table 4: Factor associated with reversible contraceptive of pregnant women who visit ANC service at Public Health Institutions In Harar, Eastern Ethiopia 2021 (n = 333)

Variables	Stillbirth		COR (95%CI)	AOR (95%CI)	P-value	
	Yes No (%)	No No (%)				
Health providers advice on contraceptive	Yes	31(9.2)	81(24.1)	0.23(0.21 - 0.45)	1.44(0.57 - 3.62)	0.752
	No	11(3.3)	213(63.4)	1	1	
Discuss your husband	yes	12(3.6)	27(8.0)	2.08(0.92 - 4.48)	3.16 (1.10 - 9.04)	0.001
	no	30(8.9)	267(79.5)	1	1	
Experience of side effects	yes	12(3.6)	30(8.9)	2.62(1.11 - 4.67)	1.67(1.16 - 6.63)	
	no	24(8.0)	267(79.5)	1	1	0.341
Maternal Age	18-24	19(5.7)	157(46.7)	2.03(0.92 - 44.48)	1.24(0.41 - 3.68)	0.852
	25-34	20(5.9)	109(32.4)	1	1	0.411
	>35	3(0.9)	28(8.3)	0.66(0.19 - 2.24)	1.580(0.25 - 9.87)	
Ever experienced any side effect	yes	27(8.9)	271(80.7)	5.05(2.53 - 10.09)	8.10 (3.01 - 21.79)	0.021
	no	12(3.6)	18(5.4)	1		
Decision maker on number of child	yes	1(0.3)	7(2.1)	2.26(1.60 - 5.61)	2.56 (1.85 - 7.93)	0.069
	no	41(12.2)	287(85.4)	1	1	
Have too more children	yes	32(9.5)	17(5.1)	5.03(2.69 -10.45)	2.84(1.45 - 6.98)	0.035
	no	10(2.9)	277(82.4)	1	1	
History of abortion	yes	11(3.3)	241(71.7)	4.11(1.99 - 8.46)	2.80 (1.14 - 6.88)	0.962
	no	31(9.2)	53(15.6)	1	1	

12. Discussion

In this study, the magnitude of on discontinuation of reversible contraceptive was 12.4 (95% CI: 8.1%, 14.6) which was lower than other studies conducted districts Bangladesh (38.4%) [10]. Humera (27.1%) [11], Nepal (62%) [12] (16%) Ofla district Tigray [13] (65%) Debre Tabor town [14] (40.4%) Dire Dawa [15] (23.4%). This difference might be due to difference in study population, contraceptive type as well as Socio-demography.

Mothers who had ever experienced any side effect were more likely to have of discontinuation of reversible contraceptive this finding was consistent with study conducted in Agarfa district Bale Zone, south east Ethiopia [3] and Ofla district Tigray [13].

In this study one of the factor determine discontinuation of reversible contraceptive was need to have more children this finding was in line with study conducted on Humera (27.1%) [11], Ofla district Tigray [13] and Diguna Fango district, Wolayita Zone [16].

In this study the odds of discontinuation of reversible contraceptive were not significantly associated with age, educational status and history of abortion this finding is different from the study done in DigunaFango district, Wolayita Zone [27].

13. Conclusion

In this study the magnitude of discontinuation of reversible contraceptive were lower than other studies conducted. Factors like having contraceptive side effect, Mothers who had not discussing on contraceptive with husband, Decision maker on number of child and women want to have more children were significantly associated with discontinuation of reversible contraceptive.

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