

Assessment of Factors Affecting Long acting of Family Planning Utilization in Adigrat Town, Tigray, North-East Ethiopia

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Abstract: Back Ground: Family planning is a key to slowing unsustainable population growth and the resulting negative impacts on the economy, environment, and national and regional development efforts. Furthermore, the methods considered “long-acting” in this context are –Intra Uterine Devices and implants, vasectomy and female sterilization are considered “permanent family planning methods.” Pills, injectable, such as Depo-Provera are considered “short-acting family planning methods” because their lengths of action are only from 1 to 3 months. Objectives: To assess factors affecting of long acting family planning utilization in Adigrat town, Tigray, Ethiopia. Methods: A Community based cross-sectional study design was conducted, from August 27, 2014 -September, 15, 2014 at six kebele of Adigrat town. . A total of 130 women at age group between 15-49 years old who have used short acting and long acting family planning methods were involved in the study. The data's were collected through structured pre-tested self-administered questionnaires. Data was edited, clearance and analyzed using SPSS version 16.0 statistical package. The findings of the study were summarized and presented using tables, descriptive measures and statistical diagrams. The P-value of <0.05 was used for significance of the study. Result: Out of the total respondent, 130(100%) were female. Majority of them 50(38.5%) were between 25-29 years old. shows that more than half of subjects 92(70.8%) had known their own HIV status. The result also indicated that the highest percentage of participants 28 (21.56%), who are using injectable contraceptive, were at age between 25-29 years old. Followed by 12(9.2%) were used implant, 5(3.85%) were used IUCD. 5(3.85%) were used pills at age between 30-34 years old. Conclusion and recommendation: To motivate the using contraceptive and to clear the misconception about family planning the recruitment programs, and Health information communication training and motivation about purpose of Long acting family planning should be strengthened. It is recommended that can intensive family planning methods training and motivation program should be maintained this will allow people to be well informed turning the positive attitude of saving life through family planning to a regular practice and finally we would like to recommend the need to carry out more detailed study regarding long acting family planning.

Keywords: Family Planning, Long Acting, Contraceptive

1. Introduction

Family planning has the power to save lives, yet today, more than 200 million women in the developing world don't want to be pregnant but aren't using modern contraception especially Long acting Family Planning(LAFP) methods such

as Implants, despite of meet their needs, can dramatically improve the health and well-being of women, families, and communities (1,2). Long acting contraceptive is a human right and is essential to women's empowerment as well as it is central to efforts to reduce poverty, promote economic growth, raise female productivity, lower fertility and improve child survival and maternal health which prevents 20-35 % of

all maternal deaths by enabling smaller family size and balance natural resource use with the needs of the population (3). In the least developed countries, use of LARCs/PMs accounts for less than one-fifth (19 %) of the contraceptive method mix. It is estimated that if 5,000 oral contraceptive users were to switch to an intrauterine device (IUD) or implant, approximately 1,250 unintended pregnancies could be averted over a 5-year period (4,5,6,7,8,9). Women who are not satisfied with short-acting methods but still wish to avoid pregnancy need alternative family planning choices. In developing countries, 20 percent to 30 percent of women who use oral contraceptives or injectable stop within two years of starting because of side effects or other health concerns. Many of these women could benefit from switching to an LAMP (10). The methods considered "long-acting" in this context are IUDs and implants; vasectomy and female sterilization are considered "permanent." Pills, injectable, such as Depo-Provera are considered "short-acting" because their lengths of action are only from 1 to 3 months (11). Fifty Five percent of reproductive age women in Africa have an unmet need for modern contraception, in Asia, and Latin America and the Caribbean regions have relatively high contraceptive prevalence, with unmet need of 21% and 22%, respectively. Furthermore 13% of the world's married women use the Intrauterine Contraceptive device as their method of contraception, Implants still remains at low rate, despite the fact that, complications during pregnancy and childbirth are the leading cause of death for women in Africa and voluntary family planning empowers women and men to decide when to have a child and to avoid unintended pregnancies and abortions which results in healthier families, communities, and nations, complications of unintended pregnancy rests on African region (12,13).

An estimation of 358 000 maternal deaths occurred worldwide in 2008, a 34% decline from the levels of 1990, despite this decline, developing countries continued to account for 99% (355 000) of the deaths. Sub Saharan Africa (SSA) and South Asia accounted for 87% (313,000) of global maternal deaths and more than 350 million couples worldwide have limited or no access to effective and affordable especially to LAFP methods (14).

Over 200 million women worldwide who want to use contraceptives don't have access to them and the world's poorest women and men are not empowered to decide the number of children and timing of their births (15). Experience in countries of Ghana, Kenya, Malawi, Tanzania, and Zambia confirms this, for example, Ghana removed policy barriers to allow trained nurses to insert implants and they trained 600 nurses, and as a result more than 88,000 Ghanaian women chose Norplant® up from 1998 to 2006, for example the CPR for implants rose over 10-fold, from 0.1% to 1.2 % in Ghana (16, 17, 18, 19, 20). Ethiopia, the most populated country in Africa making the second nation in Africa, has increased its population nearly seven times from 11.8 million at the beginning of the 20th century to about 80 million today. The total fertility rate of Ethiopia is 4.8 children per women and population growth

rate are estimated at 2.7% per year (17), in addition, contraception use among married women ages 15 to 49 was at 15%, with 14 percent use of modern methods (up from five percent in 1990) and most of the women were married as young as 15 years of age or younger, had an average of 7 or 8 children, and believed that pregnancy needed to occur every year in order to prove their fertility to their husbands and the community (21). Long acting family planning methods provide uninterrupted protection to women for 3 to 12 years and by far the most effective (99% or greater) and very safe and convenient but still the utilization is so low (22). The study area which is Adigrat town populated with 63,549 people, there are two government health centers, one private clinic and one district hospital but the service utilization of LAFP is significantly very low performance with coverage of 5.8%, in which 5.3% Implants and 0.5% Intrauterine device (IUD), while currently utilization of short acting family planning coverage is very high as compared to Long acting family planning (LAFP) users with 94.2% coverage that indicates 2011/12 town health office report, this is questionable that needs investigation, and the reasons why the result of LAFP users becoming very low coverage if majority of mothers used modern contraceptives, this problem is not studied previously. From this point of view, this study helps to dig out the current problems; prevalence rate of long acting contraceptives by type, why clients preferred short acting family planning methods rather than long acting methods is highly significant for program manager's intervention, implementation, monitoring and evaluation to improve utilization of long acting family planning methods. The purpose of this study was to assess factors affecting long acting family planning utilization in Adigrat town, Tigray, Ethiopia.

2. Methods and Materials

2.1. Study Area and Period

This study was conducted in Adigrat town, Adigrat town is located in Eastern Tigray. The total population of the town is estimated to be 63,549 people, out of which 50.8% are females. Age wise, 23.5% of the population are females in reproductive age group and 14.6% are under five children. The town is administratively divided in 6 kebel where the kebel are further divided into 24 ketenas. The study area has one district hospital; two governmental health centers, two higher private clinics as well as one medium private clinic. In addition, there are 351 Women's Developmental Army (WDA) teams, and 10,530 organized women with 1755 team leaders which facilitate community based health promotion especially to prevent pregnancy related complications (maternal mortality). Among those reproductive age group mothers approximately 83.8% (n=12,520) are eligible for any modern type of contraceptives. The coverage of modern contraceptive is 89% (n=11142), which are 94.2% of them are currently on short acting contraceptives and 5.8% of them are on LAFP methods, accounted 5.3%, and 0.5% used

Implant and IUCDs, respectively in 2012 (report). The study was conducted in Adigrat town in 130 randomly selected women at age group between 15-49 years old who have used short acting and long acting family planning methods from August 27, 2014 -September, 15, 2014 in the city.

2.2. Study Design

A Community based cross-sectional descriptive study was employed.

2.3. Study Population

The study population consisted of women of reproductive age group who have gotten long acting family planning and hormonal contraceptives (oral contraceptive pills (OCPs) and injectable) services during the study. Population of all women age 15-49 years old who have used short acting and long acting family planning (pills and inject able) methods was included in the study. Women who used emergency contraception, condoms, foam jelly and tubal ligation were excluded from this study

2.4. Sample Size Determination

To determine sample size there are 5000 clients eligible for modern contraceptives, as though documented study about Prevalence of LAFP and short acting contraceptive methods in the study area is not found, for sample size determination the prevalence of long acting family planning users in Mekelle town is 12%, was considered. The formula used to determine the sample size with 95% confident interval, 5% margin of error and cluster form of design effect will take in to account. So the required sample size is

$$n = DE \times Z^2 p (1 - p) / w^2.$$

Design Effect (DE)-2, that is $2 \times 1.962^2 \times 0.04(1-0.04) / (0.05)^2 = 118$ and 10% contingency of 33 clients was made total sample size of 130 respondents.

2.5. Sampling Procedure

Probability sampling technique was employed. In Adigrat town, there are six Kebeles and these Kebeles encompass 24 Ketenas. Of those Kebeles with Woreda Health office recommendation and with scarcity resource, and feasibility one Ketena from each Kebele were selected and making 6 clusters were identified again by simple random sampling. Then the study units were allocated proportionally from each Ketena. Finally, simple random sampling technique was used select the study participants.

2.6. Instruments and Measurements

Pretested and structured questionnaire was used Translation of instrument is made from English language to local Tigrigna language and back to English language by different experts who are familiar on the field of area and blind on the original version of the questionnaire (English version) in order to facilitate reliable response to underline

questions and keep the original meaning of the instruments. Questionnaires for each item are adapted from previously done similar studies (13). The instrument contains Five parts: Sociodemographic data, of the respondents(11 items), Reproductive history(08 items), Concerning Knowledge(4 items), Concerning attitude(03 items) , and concerning practice(15 items) with combination of responses "Yes" ,"No" and " don't know" assuming score of "Yes"=1 ,either of "don't know" or "No" =0,

2.7. Data Collection Procedure

The data were collected for five days in each study Ketena. First the town was divided in to 24 clusters based on the number of households (14,443) as well as their residents, among these, six clusters will be taken randomly(one cluster from each kebele and sampling interval calculation is mandatory for selection of households, if a cluster is found physically inaccessible, it was replaced by another randomly selected cluster. After complete selection of clusters taken over, households were leveled depending on the number of clusters allocated. The first household was selected using table of random numbers, while subsequent households was picked-up by adding the sampling interval using systematic random selection (every 7th) households based on the structured developed questionnaire, 130 respondents was interviewing home to home in the community for all selected households that exists based on the sampling frame. Data collectors are 12 female nurses, two professionals per cluster and 30 HH per data collector. Moreover, data collectors was given training and orientation prior to data collection period and strict supervision and follow up is the daily bases.

2.8. Data Processing and Analysis

The questionnaire checked for completeness and consistency and entered and edited in the computer for statistical analysis. Data was entered in to Epi Info version 3.5.1 database. Furthermore, the data editing and clearance was done on the same software. Finally, the data was taken to SPSS version 16.0 for the final analysis. Extreme observations and missing values was assessed and managed. The findings of the study was summarized and presented using tables, descriptive measures and statistical diagrams. Binary logistic regression was used to assess the independent effect of the predictors on the utilization of Implants. Statistical inferences were made by using chi-square test and the measure of association was the odds ratio. All covariates with nearly $p \leq 0.05$ in the bi-variable analysis or potential confounders was included in to the final model to obtain adjusted odds ratio and their 95% confidence intervals. All statistical tests was two sided and was considered significant at $\alpha = 0.05$ or less. This study on completion could serve as a baseline data as well as a reference material to researchers, experts or policy makers for intervention. To reach these bodies original copy of the study finding will be disseminated to Mekelle University Ayder Campus, department of Nursing In-service, Tigray Regional Health

Bureau and Adigrat town health office. In addition, the findings were presented on appropriate seminars, conferences and workshops. Furthermore, the investigator was prepared the manuscript and send for publication on reputable and peer reviewed journals.

2.9. Operational Definitions

Knowledge of long acting family planning: if the women has mentioned implants o IUCD as one of the family planning methods, she would be considered as having knowledge of long acting family planning methods as method of contraceptive

Non Implanon/IUCD users: Are women of reproductive age group who used/got hormonal contraceptive (OCPS and injectable).

Choice-means clients have a range of family planning methods to choose them among alternatives.

2.10. Data Quality Control

To ensure the quality of data, first the questionnaire was pretested. The pretested was conducted in 5% of the participants at randomly selected Ketenas away from the study Ketenas. Training was given for the data collectors and supervisors before the actual data collection. Every day after data collection, questionnaires were reviewed and checked for completeness, accuracy and clarity by the supervisors and principal investigators.

2.11. Ethical Considerations.

The study was approved by the Ethical Review Board of

Mekelle University, college of Health Sciences, Department of Nursing. Verbal consent was obtained from each study participants. The ethical committee approved the consent procedure since the study had no any harm to the study participants

3. Results

Socio-demographic Characteristics

Out of the total respondent, 130(100%) were female. Majority of them 50(38.5%) were between 25-29 years old. One hundred and eight (83.1%) of the respondent were Orthodox in religion and followed by catholic17(13.1%). The majority of participants 115(88.5%) were Tigray by ethnicity. The result shows that the majority of participants 45 (34.6%) were at level of education. The finding also indicates that the majority of participant 53(42.3%) were farmer by occupation. More than half of participants 105(80.8%) have good relation to the family as spouse. The majority of participants 110(84.6%) were married, most of the participants husband's level of education 56(43.1%) were above grade 12. More than half of subjects 92(70.8%) had known their own HIV status. It indicates that they had good experiences and information about HIV and its effect. The majority of the response about their husband's HIV status. In addition, Most of subjects 44(33.8%) have range between 501-1000 Birr by monthly income (Table.1). Shows that participants in this study had mainly used injectable family planning method.

Table 1. Socio demographic characteristics of women at age group between 15-49 years old who have used short acting and long acting family planning methods at Adigrat town, Tigray, Ethiopia 2014.

Roll No	Variables	Characteristics (classification)	Frequency Frequency(n)	Percentage (%)	Mean and standard deviation Mean M±SD
1	Age	15-19	8	6.2	3.21±1.390
		20-24	32	24.6	
		25-29	50	38.5	
		30-34	22	16.9	
		35-39	7	5.4	
		40-44	5	3.8	
		45-49	6	4.6	
		Total	130	100	
2	Religion	Orthodox	108	83.1	1.21±0.493
		Catholic	17	13.1	
		Muslim	5	3.8	
		Total	130	100	
		Tigray	115	85.5	
3	Ethnicity	Amhara	8	6.2	1.19±0.682
		Gurage	5	3.8	
		Others	2	1.6	
		Total	130	100	
		Unable to read and write	14	10.8	
4	Level of education	Able to read and write	9	6.9	4.48±1.848
		Grade1-4	13	10.0	
		Grade5-8	15	11.5	
		Grade9-12	45	34.6	
		Above12 Grade	34	26.2	

Roll No	Variables	Characteristics (classification)	Frequency Frequency(n)	Percentage (%)	Mean and standard deviation Mean M±SD
5	Occupation	Total	130	100	2.71±1.792
		Farmer	55	42.3	
		Merchant	4	3.1	
		Government employee	33	25.3	
		Private	16	12.3	
		House wife	7	5.4	
		Daily laborer	12	9.2	
		Student	3	2.3	
		Total	130	100	
6	Relation to the family	Head	18	13.8	2.00±0.787
		Spouse	105	80.8	
		Daughter	1	0.8	
		Others	6	4.7	
		Total	130	100	
7	Do you know your HIV Status	Yes	92	70.8	1.29±0.457
		No	38	29.2	
		Total	130	100	
8	Do you know your husband's HIV status	Yes	81	62.3	1.45±0.727
		No	49	37.6	
		Total	130	100	
9	Monthly income	200-500 Birr	26	20	2.70±1.351
		501-1000Birr	44	33.8	
		1001-2000Birr	24	18.5	
		2001-3000 Birr	15	11.5	
		Above 3000 Birr	21	16.2	
		Total	130	100	
10	Current marital status	Single	8	6.2	2.12±0.682
		Married	110	84.6	
		Living together	3	2.3	
		Divorce	6	4.6	
		Widowed	3	2.3	
		Total	130	100	
11	Husband level of education	Unable to read and write	4	3.1	5.31±1.539
		Able to read and write	4	3.1	
		Grade1-4	3	2.3	
		Grade5-8	24	18.5	
		Grade9-12	39	30.0	
		Above 12 grade	56	43.1	
		Total	130	100	

There was no significant relationship between Long acting Family planning(LAFP) and age of participants.(Chi-square=0.901, Df=1).The result also indicates that the highest percentage of participants 28(21.55), who are using injectable contraceptive were at age between 25-29 years old. Followed by 12(9.2%) were used Implant, 5(3.855) were

used IUCD. 5 (3.85%) were used pills at age between 30-34 years old. The result also showed that, the majority of participant 41(31.54%) were not used long acting family planning methods at age between 25-29 years old. However, only 24(20%) were used long acting family planning methods at reproductive age (Show table.2).

Table 2. Respondents Choice, Educational back Ground and Age of women at age group between 15-49 years old who have used short acting and long acting family planning methods at Adigrat town, Tigray ,Ethiopia 2014.

Educational back ground	Norplant	Inject able	Pills	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Unable to read and write	6	8	2	1	1	8	1	-	3	-
Able to read and write	2	5	-	-	-	5	1	2	-	12
Grade1-4	7	6	1	-	3	6	3	-	-	1
Grade5-8	11	8	4	-	7	4	2	1	-	1
Grade9-12	17	25	7	3	16	14	8	2	-	2
Above12 Grade	15	17	3	4	5	13	7	2	2	1
Total	58	69	17	8	32	50	22	7	5	6

The result in table3 shows more than half of subject 66(50.8%) had married between 18-20. It indicates that they had good experience. The result also shows that majority of participants 58(44.6%) had got pregnancy between 3-5, 106(81.8%) have not breast feeding expression at study time, 69(53.1%) have not decided the number of children want to have. However, among the participants who have decided the number of children want to have, the majority of them 51(39.2%) have wanted to get four children. Shows that most of subjects 105(88.8%) were not used long acting family planning method. However, the majority 58(44.5%) were used LAFP before. The result also reveals that the majority 69(53.1%) have using injectable contraceptive method currently. Regarding the method of LAFP preference, more than half of the subjects 64(49.2%) had need for future

to control unwanted pregnancy. Most of the subject 70(53.8%) have divorce as a main reason to prefer implant contraceptive and generally LAFP method. The result shows that majority of the participants 106(81.8%) were got LAFP from Health center and Hospitals. The study result reveals that the majority of the participants 84(64.6%) had discussion and supportive by role of husband on utilization of Implant / IUCD, 80(61.5%) have planned to use implants/IUCD for the future, 82(63.1%) had preferred to get two times, 105(80.8%) have not been faced unwanted pregnancy. However, among these participants, the majority of the participant 66(50.8%) were abortion have main solution if unwanted pregnancy once occurred. Almost the entire participant 130(100%) were suggested that distributions means of contraceptive method are free service at health center and hospitals.

Table 3. Reasons for Preferences of the Method based on Marital Status. of women at age group between 15-49 years old who have used short acting and long acting family planning methods at Adigrat town, Tigray, Ethiopia 2014.

Marital status	To limit family size	To space birth	To prevent pregnancy	For my health	Others	Total
Single	7	-	1	4	-	8
Married	52	45	7	-	1	109
Divorced	1	2	-	-	-	3
Separated	4	2	-	-	-	6
Others	4	-	-	-	-	4
Total	67	49	8	4	1	130

The study result indicates that the majority of subjects 23(17.7%) who are living at Keble 03, were used injectable types of contraceptive methods. The participants who are living at Keble 03 were highly used all methods of contraceptives than all other Kebels. However, the majority of the subjects who are living at Keble 03, were used implants. The result also shows that the majority of participants 40(31%) had not used long acting family planning methods. However, 46(49%), 37(28.5%) and

28(21.5%) were preferred implant, Intra Utrine contraceptive device and other long acting family planning method respectively. The association between types of LAFP participant used before this study time is not significantly associated with their educational background. The study result also shows that the majority of subjects 21(16%) were used IUCD before, followed by 17(13%) were used Implants between grade 9-12 by their educational background. The remain finding have putted on the table below (Table.4).

Table 4. Respondents Attitude to Change from Short Acting to Long Acting Methods of women at age group between 15-49 years old who have used short acting and long acting family planning methods at Adigrat town, Tigray, Ethiopia 2014.

Age	Injectable		Pills		Plan to change to					
					Implants		IUCD		Total	
	No	%	No	%	No	%	No	%	No	%
Unable to read and write	8	6.16	2	1.54	2	1.54	2	1.54	14	10.78
Able to read and write	5	3.85	-	-	3	2.31	1	0.77	9	6.93
Grade1-4	6	4.62	1	0.77	4	3.08	2	1.54	13	10.01
Grade5-8	8	6.16	4	3.08	3	2.31	-	-	15	11.55
Grade9-12	25	19.25	7	5.39	11	8.47	2	1.54	45	34.65
Above12 Grade	17	13	3	2.31	9	6.93	5	3.85	34	26.18
Total	69	53.9	17	13	32	24.64	12	9.2	130	100

The result shows that participants in this study had mainly used injectable family planning method. The result of Pearson chi-square indicates (table.3) that there was no significant relationship between LAFP and age of the participants (Chi-Square=0.901, Df=1). The result also indicated that the highest percentage of participants 28 (21.56%), who are using injectable contraceptive, were at age between 25-29 years old. Followed by 12(9.2%) were used

implant, 5(3.85%) were used IUCD. 5(3.85%) were used pills at age between 30-34 years old. The result also shows that the majority of participant 41(31.54%) were not used long acting FP methods at age between 25-29 years old. However, only 24(20%) were used long acting FP method at reproductive age. Table4. reveals that there was not a statistically significant correlation between educational background and reproductive history. The result also shows that

the mean score of participants who are above 12th grade (3.52 ± 0.511) were higher than unable to read and write (2.21 ± 0.893) who had decided the number of children want

to have. However, there was a relationship between educational back ground and number of the first pregnancy at reproductive age ($P=0.009, F=3.002, Df=1$) (table .5).

Table 5. Respondents Attitude to Change from Short Acting to Long Acting Methods of women at age group between 15-49 years old who have used short acting and long acting family planning methods at Adigrat town, Tigray ,Ethiopia 2014.

Age	Injectable		Pills		Plan to change to					
					Implants		IUCD		Total	
	No	%	No	%	No	%	No	%	No	%
15-19	2	1.54	-	-	2	1.54	4	3.08	8	6.16
20-24	9	6.93	1	0.77	4	3.08	18	13.86	32	24.64
25-29	12	9.2	5	3.85	4	3.08	28	21.5	49	37.7
30-34	5	3.85	3	2.31	5	3.85	9	6.93	22	16.94
35-39	1	0.77	1	0.77	1	0.77	4	3.08	7	5.39
40-44	-	-	1	0.77	1	0.77	3	2.31	5	3.85
45-49	2	1.54	1	0.77	-	-	4	3.08	7	5.39
Total	31	23.9	12	9.2	17	13.09	70	53.9	130	100

The result shows that the majority of participants (45%; n=58) were used Implant by types of LAFP you used before

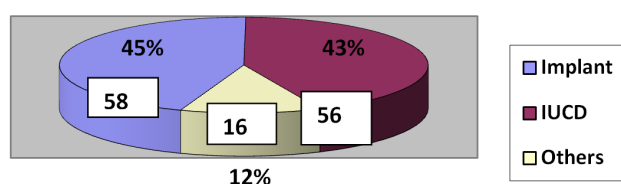


Figure 1. distribution of participant types of LAFP used before by women at age group between 15-49 years old who have used short acting and long acting family planning methods at Adigrat town, Tigray, Ethiopia 2014.

4. Discussion

This study has attempted to assess factors affecting long acting family planning utilization in Adigrat town, Tigray, Norther, Ethiopia. Maintaining an adequate and safe family planning service is an issue of concern to local health planners especially with increase in demand as a result of the decreases in population size and an increase in the numbers of medical facilities and their safety in Adigrat town and as country. Therefore, understanding the various factors contributing to long acting family planning utilization is curcial. Similarly; the result of this study on factors affecting long acting family planning utilization shows that in a diverse group of women of reproductive age groups who have gotten LAFP and hormonal contraceptive services. The proportion of women who reported current contraceptive use was highest in age groups 25-29; where injectable contraceptive users. The least proportion of current use of family planning method Pill 5 (3.85%); Implant 12(9.2%) were reported by age group 30-34. The possible explanation is that most women strive to have small number of children during their younger age, and at around 30 they might want to have their desired number of children. A study was conducted by EDHS, 2011, were shown that overall ,29% of currently married women are currently using a method of family planning ,and nearly all use is a modern method; only one percent of currently married women are using a traditional method and the most popular methods are

injectable 21% married women, only implants 3% and 2% of married women reported using an Intera Utrine contraceptive devices(IUCD). The result in this study were higher in Implant contraceptive method than the previous study by EDHS,2011.however,the injectable contraceptive types were slightly higher than the participant in this study have good knowledge on family planning .Study by Tefera,A.atKoteba were a result has shown that women with young partners were at relatively conducive environment to use family planning methods compared to those with partners older age.Similarly,this study has shown that women with husbands who were younger than 30 years to use contraception. In this study the majority of the respondents had knowledge on their own HIV status. It indicates that they had good experience and information about HIV and its effect. The present study shows that the participant had mainly used injectable family planning method. The current study revealed that the least frequency used long acting FP methods at reproductive age group. The present study shows that more than half of subjects had need of implant contraceptive method for future to control unwanted pregnancy. In addition; they have divorce as main reason to prefer implant contraceptive and overall Long acting family planning. There were no any significant relationship between LAFP and age of participants. The association between role of husbands on utilization of implants/Intrauterine contraceptive devices and is not statically significantly associated with their marital status. This indicates that in this study the result of inject able family planning method was higher in FP than other methods compared with previous studies. The probable reason for this differences may be due to the service given on inject able family planning method becomes increased from time to time in this study area, women of reproductive age group need of practical uses for this types of contraceptives and this may suggest that those who need to use injectable family planning method replay more on seeking the best motivation and knowledge. These scores are slightly higher than those reported from previous studies in other countries. The main reason may be this study indicated that understanding the different types of long acting family planning and hormonal Contraceptives ,which are

carried out by women of reproductive age groups are very important as study finding women's of reproductive age group can be adjust their own need of contraceptives to direct the needs of them, due to the women of reproductive age groups their need and types of contraceptive .State to look at then this suggests that those who participated in this study had preferred one of LAFP but not all and the previous study may assess their participants only by total types of family planning methods. The majority of women used implants (87%) followed by IUCD (13%) and the prevalence of implants and IUCD users in Mekelle town is 10.6% and 1.5% respectively. There is no study that documented factors associated with very low use of LAFPs in Tigray region. Jennifer wilder(2007) a result shown that 13% of the world's married women use the IUCD as their method of contraception, implants still remains at low rate, despite the fact that ,complications during pregnancy and childbirth are the leading cause of death for women in Africa and voluntary family planning empowers women and men to decided. Urban IUCD users 6.7% and implants inserters are 3.8% while rural 1.1% IUCD and 3.3% of them are implants.(ACOG Committee opinon,2009).Coming to age related implication ,CPR increases from age 15-19 to 20-24,and then declines to 13 percent among women 45-49 years on the way the CPR in Ethiopia observed in the 2011 EDHS has doubled from that reported in the 2005 EDHS. Study which was conducted by WHO, 2005, The Prevalence of LAFP in Addis Ababa is 13.7% which is 10.9% and 2.8% IUCD and Implants respectively and the prevalence of LAFP in Dire Dawa is 12.7% in which IUCD and implants 4.7% and 8% respectively. Finer et al (2012) .In the regional state of Tigray the contraceptive users of any modern types is 21.2% from this, IUCD users 2.1% and Implant inserters 5.65 and women of 15-49 years not use any modern contraceptive currently are 77.8%.The overall prevalence of any contraceptive use in Mekelle town is only 37% and the overall prevalence use of LAFP and permanent contraceptive methods use is 12.3%; the prevalence of LAFP users' are 12%.(20-27).

5. Conclusion

It is concluded from our study that different knowledge, attitude and practice on family planning in Adigrat town, Health facilities and lack of information may serve as an important issue to be addressed .To Motivate the using contraceptive and to clear the misconception about family planning the recruitment programs, and Health information communication Training and motivation about purpose of LAFP should be strengthen. The women of reproductive age group who have gotten LAFP and hormonal contraceptives services should know that numerous screening measures are implemented to ensure that family planning are safe for the user and that is safe for using LAFP and any FP contraceptive methods. omens of reproductive age groups understand about a problem in the availability of necessary materials and supplies for these who needs t use any

LAFP.There was a problem in the availability of necessary materials and supplies for those who need any favorable LAFP.There majority of respondents have to believe to use LAFP any methods inconvenient place, inaccessible emergency types of family planning and husband opposition. It indicates the high risk practice and necessitates intervention and low knowledge, attitude, and practice including motivation on long acting family planning and their factors.

Recommendation

The low motivation, awareness, attitude and practice on long acting family planning but also any types of FP among the women of reproductive age groups who have gotten LAFP and hormonal contraceptive services in Adigrat town is an indicative for in effectcient management system within the health Bureau has to prepare a program for other service provides for experience sharing in order to improve the quality initiation. Furthermore, the health Institutes such as Hospital, Health Center and other related institutes have to be encouraged for better initiation and motivation. Educate all women of reproductive age groups who have gotten LAFP and hormonal contraceptive and also who are not user in Adigrat town about the benefits and importance of long acting and hormonal family planning methods. Behavioral change communication and demonstration be done regularly as part of the routine service and through the outreach (School /Visits) program about optional family planning practice to all women of reproductive age groups who come to health institution and outreach services.

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Author Contributions

WGT and YWH have made substantial contributions to beginning and design, collection of data, analysis and interpretation of data and in drafting the manuscript and correcting the comment given by the advisors.

AFA, AA and KGG involved in revising the research paper and the manuscript critically for important intellectual context and approval of the final version to be published and participated in its design and coordination. AFA participated in the approval and funding process, participated in the design of the study participated in its design and coordination. AA and KGG had greater contribution in reviewing the manuscript English and topography. And helped to draft the manuscript.

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