

Post Abortion Family Planning Utilization and Associated Factors Among Women Received Abortion Services at Adama Hospital Medical College, Oromia, Ethiopia

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Abstract: Worldwide post abortion contraceptive prevalence varies within a range of from 69% in Eastern and Southern Europe to 78% in Northern Europe. In Asia, South America and Africa post-abortion family planning utilization variation is ranging from 61 to 97%. In Ethiopia 48– 59% of clients left their institution with post-abortion family planning services which showed wide variations in the percentage of women who received post-abortion contraception. Post-abortion family planning has been proposed as a key strategy to decrease unintended pregnancy and repeat induced abortions. Now it is important to investigate the level post abortion family planning and act on the factors accordingly. So this study aimed to assess post abortion family planning utilization and associated factors among women getting abortion services at Adama Hospital Medical College, 2021. Method: Institutional based cross-sectional study was conducted from January-1 to February-28, 2021. A sample of 471 women were enrolled consecutively. Data was collected by semi-structured questionnaires which were administered via face to face interview. Data was entered using Epi-Info version 7 then exported to SPSS version 20 for processing and analysis. Descriptive statistics was used to explore the participant's characteristics. Binary & multiple logistic regression was used to assess the association between dependent & independent variables. The magnitude of association between dependent & independent variables were measured by odds ratios along with estimated 95% confidence interval. Finally the significance of association was declared by p-value of less than 0.05. Results: The magnitude of post abortion contraceptive was found to be 73.9% (95% CI: 70.1-77.9). The odds of using post abortion family planning for women having diploma level of education was 28.37 (AOR=28.37; 95% CI: 4.09-196.834) times higher than those having no formal educations. After surgical termination the odds of post abortion contraceptive use was 58.9% (AOR=0.411; 95% CI: 0.169-0.991) times lesser than for medical abortion. Conclusion & recommendations: The magnitude of post abortion family planning in this study seems lesser. Independent predictors like maternal education, procedure done, counseling, reason of termination and knowledge status were significantly associated with the outcome variable. So attention should be given for counseling & level of education for consistent & efficient use.

Keywords: Abortion, Adama Hospital, Post Abortion, Post Abortion Family Planning

1. Introduction

Family planning is the use of various methods of fertility control that will help individual or couples to have the number of children they want and when they want them. Abortion is the loss of pregnancy before the age of viability which is considered as 28 weeks of gestation or weight of less than 1000gm in most developing countries including Ethiopia. Post

abortion family planning (PAFP) is the service given for women after undergoing abortion and a key component of Post abortion care (PAC); and it includes voluntary contraceptive counseling and service provision [1, 2].

Worldwide post abortion contraceptive prevalence is estimated to be 58% and in the more developed countries,

regional prevalence variations fall within a relatively narrow range, from 69% in Eastern and Southern Europe to 78% in Northern Europe. Among the less developed countries, contraceptive prevalence is lowest in Africa. Use of post abortion contraception among married women in less developed countries also varies from 8% in Western Africa to a high of 83% in Eastern Asia. In Asia, South America and Africa on post-abortion family planning utilization variation is ranging from 61 to 97% [3-5].

In Europe and US repeat abortion is 22% & 50% due to non-use of post abortion contraceptives. This is similarly affecting Africa including Ethiopia (35%). In Ethiopia 48– 59% of clients left their institution with post-abortion family planning services which showed wide variations in the percentage of women who received post-abortion contraception. Yet many of these women do not have access to effective contraceptives and not offered immediate post abortion family planning services, although they are at risky [6-8].

In developing countries, about 885 million of reproductive age (15–49) want to prevent becoming pregnant; of these women about 671 million are using contraceptive while the remaining 214 million are considered to have unmet need of contraceptives. About (21%) of this unmet need for contraception is observed in Sub-Saharan Africa. In sub-Saharan Africa, 23% were utilized any types of family planning and 18% were using modern family planning methods. The contraceptive prevalence rate in Ethiopia was 36% for all women and 42% for currently married women. Although contraceptive acceptance rate has improved in the last decade from 28.6 to 36%, it remains as one of the countries with low contraceptive use and unmet need for family planning [2, 9].

According to WHO report of 2012, around 213 million pregnancies occurred worldwide and around 80 million unwanted pregnancies of which 89% occurred in the developing countries; of these, 50% ended in abortion. In developing countries, 885 million of reproductive age (15–49) want to prevent becoming pregnant; 671 million are using contraceptives & 214 have unmet need of which 21% are found in Africa. In Eastern Africa, unsafe abortion accounts for 1 in 7 maternal deaths. An estimated 382,000 induced abortions were performed in Ethiopia at this time [10].

In a 2001–2002 in hospitals of Addis Ababa, post-abortion complications were one of the three leading causes of maternal morbidity & mortality, contributing to 28.9% of the deaths. There is a large gap between actual fertility and women's average preferred family size in Ethiopia. Unmet need for family planning is 22% among married women. This lead to unintended pregnancy and unsafe abortion [11].

A medical, social and economic impact of unwanted pregnancy was significant. The economic consequences of abortion in terms of direct cost for health systems and indirect cost for women, their families, and societies could be raised for paying for unsafe abortion &/or treatment of its complications. There are also costs incurred by inability to perform normal economic and domestic activities for a period of time. Social consequences like risk of being denounced,

well-being of children & members and stigma experienced by women and families are among the most. This can increase the risk of morbidity and mortality due to unsafe abortion because it can provoke a delay in seeking treatment [12, 13].

In developing countries, two-thirds of unintended pregnancies occur among women who were not using any method of contraception [7]. Obstacles to increased contraceptive access and use include religious objections, lack of awareness of the availability of contraceptive methods, concerns about possible health risks and side effects, and the mistaken belief that one will not become pregnant. Due to this reason many post abortion women leaves the institution without any contraceptives, despite WHO's recommendation of a minimum six month inter-pregnancy interval to ensure better maternal health. Following any abortions, all women should receive counseling and contraception services to prevent unintended pregnancies in their future [14].

In Ethiopia 412 women die from pregnancy related cause for every 100,000 live birth. About 44% of this death could be preventable only with the use of any contraceptive methods as it reduces unintended pregnancy. The modern contraceptive prevalence among the currently married women 35% (EDHS 2016) and 41% (Mini EDHS 2019). At the same time there were 22% unmet need among this age group. This gap has to be addressed through integrating family planning services with post abortion service as it is the ideal time to prevent unwanted pregnancy and break the vicious cycle of repeated abortion [15].

For reduction of maternal mortality and morbidity several efforts have been made by FMOH. These include strengthening basic and comprehensive Emergency obstetric care, improve accessibility to family planning services, scale up comprehensive post abortion services, and improve availability of reproductive health commodities like supplies, equipment and medicines including contraceptives. Increasing CPR and reducing unmet need has to be encouraged through integrating family planning with post abortion care [16]. Post-abortion family planning has been proposed as a key strategy to decrease unintended pregnancy and repeat induced abortions. However, the accessibility and quality of PAFP services remain a challenge in many countries including Ethiopia and due to this unwanted pregnancies were ending in repeated induced abortions [17].

Studies done on unsafe & safe abortion in selected health facilities in Ethiopia 2010 showed that fear of side-effects, absence of full information, perceived low risk of conception, inconvenience to use, and social-cultural factors are common reasons for the low use of contraceptives acceptance in general and post abortion family planning in particular [18, 19]. Although post abortion contraceptive is mandatory to increase contraceptive rate which reduces unplanned pregnancy and unsafe abortion, there were no relevant studies in my study setting after abortion service was expanded at michu clinic.

Understanding the importance of post abortion family

planning services and factors affecting contraceptive usage is very important in addressing unmet needs and increasing uptake among post abortion clients. This study described the factors hindering or facilitating usage of family planning services to post abortion clients and magnitude of post abortion family planning in the hospital. Thus clients benefited as the finding pointed out the factors that disable their contraceptive use after abortion. Additionally the hospital was advantageous that the magnitude and factors were identified. Governmental and nongovernmental organization will use it for make effective decisions on post abortion contraceptive intervention program. Researchers can use this finding as the base line data to investigate on the same issue.

2. Objectives

2.1. General Objective

To assess magnitude of post abortion family planning utilization and associated factors among women received abortion services at Adama Hospital Medical College, january-1 to february-28, 2021.

2.2. Specific Objectives

To determine magnitude of post abortion family planning utilization among women received abortion services january-1 to february-28, 2021.

To identify the factors associated with the utilization of post abortion family planning among women received abortion services january-1 to february-28, 2021.

3. Methods

3.1. Study Period and Setting

The study was conducted in Adama Hospital Medical College from january-1 to february-28, 2021. AHMC is one of the tertiary and the only teaching hospital in Oromia region which is found in Adama town. Adama is found about 99 km away in the eastern of Addis ababa which is the capital of Ethiopia. It is comprised of 5 sub city and 18 kebeles. According to the town health office 2019 report, the total projected population of the town was 388,940 among which 23,652 were estimated pregnant women [11]. About 12,600 women were contacted AHMC for MCH services of which average of about 3226 were who seek abortion per year as per HMIS report of the hospital. The hospital was constructed by American Mennonite missionaries since 1946. It is serving over five million catchment populations and as a referral site for neighboring zones and regions such as part of Amhara and Afar regions. There are 11 obstetricians, 39 OBGYN residents and 34 midwives who are currently providing MCH related services and 3 midwives are giving family planning and abortion services in particular.

3.2. Study Design

The institution based cross sectional study was conducted.

3.3. Populations

3.3.1. Source Population

All pregnant women who came to seek abortion service at AHMC.

3.3.2. Study Populations

Women who got abortion service at AHMC during the study period.

3.3.3. Eligibility Criteria

Inclusion

Women who got the abortion service during the period.

Exclusion

Women who with disability (hearing or speaking) and has no attendant.

3.4. Sample Size Determination

An independent sample was calculated for each specific objective. Accordingly to estimate the magnitude of PAFP utilization, the sample size was calculated using single population proportion formula considering important statistical assumptions such as, the proportion of PAFP utilization (P) among women received abortion services 71% [28], the level of significance (α) of 0.05 and corresponding standardized value for 95% confidence (Z) 1.96 and margin of error (d)=0.04, calculated from statistic obtained from the above mentioned study. Inserting these values in the formula at the calculated sample was illustrated as follow;

$$n = \frac{(Z_{\alpha/2})^2 * p(1-p)}{d^2} = (1.96)^2 \times (0.71 \times 0.29) / (0.04)^2 = 494$$

Since the population was less than 10,000, the correction formula was used as follows:

$$N = \frac{n}{1+n/N} = \frac{494}{1+494/3226} = 428$$

Non response rate of 10% was considered and the final sample was 471.

The sample size for the second objective has been calculated by considering the following assumption using epinfo version 7. Among the variables marital status, counseling on contraceptive and history of previous usage were considered as the main associated factors for use of PAFP. Accordingly for example the proportion of being married among women who used PAFP was 83.5% and proportion of being married among women who didn't used were 16.5%. The odds ratio of being user among women who were married compared to single was 2.59 [20]. So; the calculated sample size was 198 (99 exposed and 99 unexposed) as illustrated on the following table. Hence, the sample size of the first objective was used as the final sample size (Table 1).

Table 1. The sample size for the second objectives.

variables	%of outcome in unexposed	Ratio of unexposed to exposed	Outcome in exposed	OR	power	CI	Total sample
Marital status	16.5	1	83.5	2.59	80	95%	198
Counseling on PAFP	32.8	2	75.5	3.5	80	95%	95
Hx of contraceptives	32.9	1	82.1	3.6	80	95%	82

3.5. Sampling Procedures

Consecutive sampling technique was used to get the required samples considering the clients came randomly from different areas which assure randomization. Clients who contacted the unit for abortion and got the service during the study period was interviewed at their exit or discharge.

3.6. Data Collection Tools & Procedure

Data was collected using interviewer administered semi-structured questionnaire which was adopted from previous similar studies and modified accordingly. It was translated to Afan Oromo and Amharic by experts before data collection period. Data collectors were 2 degree midwives who were giving free services in the hospital and they were supervised by one degree midwife who had the experience on collecting & supervising. The collectors has undergone face to face interview after participants permission were confirmed.

3.7. Data Quality Control

Training was given for data collectors and supervisor for two days by principal investigator on sampling, completeness & consistency and ethical issues. Pretest was conducted before actual collection on 5% of the samples at Bishoftu hospital and the tools was modified accordingly. Data was checked daily for completeness by supervisor and the collected questionnaires were handled and stored safely in a secured box after counted.

3.8. Study Variables

Dependent Variable:

Post abortion family planning utilization.

Independent Variables:

1. *Social-demographic:* Age, residence, marital, education, income...
2. *Reproductive & contraceptive history:* parity, history of FP use, History of Abortion...
3. *Facility & HCP related:* Availability, Counseling, technology used...
4. *Knowledge and Attitude on contraceptive use:* Timing, effectiveness...

3.9. Data Processing and Analysis

The collected data were coded and entered into EPI-Info version seven and then exported to SPSS for cleaning, transforming and analysis. Descriptive analysis was used to explore the characteristics of the participants. Data was approximately normally distributed as per the histogram and

curve.

The crude associations between PAFP and independent variables were assessed using binary logistic regression analysis. At this level the candidate variables for multivariate analysis were selected at P-value < 0.25. Multivariate logistic regression was applied to estimate the adjusted effects of independent variables on outcome variable. The strength of association was estimated using odds ratio with 95% confidence interval. Then the significance of associations was declared at p-value < 0.05. The regression model was developed using standard model building strategy in which the effects of all predictors can be assessed simultaneously. The final fitted model was assessed for multicollinearity using Variance Inflation Factor (VIF) and goodness of fit using Hosmer and Lemishow test.

For the knowledge and attitude, first their status were determined as “good” or “poor” and “positive” or “negative” respectively. There were five knowledge & seven attitude questions. Then the sum of each point for each client was computed and mean value (1.71, for knowledge & 3.68, for attitude) was taken as cut-off to determine their status and assessed for association.

3.10. Operational Definitions

Post abortion family planning utilization: The number of post abortal women who used any family planning method (Yes Vs No) [23].

Knowledge on contraceptives: will be dichotomized as ‘poor’ and ‘good’. Those who answered below the mean value of knowledge questions were considered as poorly knowledgeable and those who answered above or equal to mean values as having good knowledge.

Attitude towards contraceptives: dichotomized as negative and positive.

Positive attitude: When one answered more than or equal to mean value of attitude questions.

Negative attitude: When one answered less than mean value of of attitude questions [28].

4. Results

4.1. Socio-demographic Characteristics of Participants

A sample of 471 participants was involved in this study, making the response rate of 100%. Among study participants, 178 (37.8%) were aged 20-24 years and 187 (39.7%) of them attained secondary school (degree and above). The study found that, 275 (58%) of participants were married and 311 (66%) were urban residents. Regarding the participant’s occupation, 153 (32.6%) were students currently and 125 (26.7%) of women’s paternal were employed (table 2).

Table 1. Socio-demographic characteristics of participants who received abortion services at AHMC during january-1 to february-28, 2021.

Maternal age	n	Percent
<=19	82	17.4
20-24	178	37.8
25-29	137	29.1
30-34	47	10
>=35	27	5.7
Maternal education		
Primary	138	29.3
Secondary	187	39.7
Diploma	63	13.4
Degree & above	45	9.6
No formal education	38	8.1
Marital status		
Married	275	58.4
Single	152	32.3
Others*	44	9.3
Maternal Occupation		
House wife	132	28.1
Student	153	32.6
Employed	67	14.3
Daily labourer	68	14.5
Other**	50	10.6
Paternal Occupation		
Student	59	12.6
Employed	125	26.7
Daily labourer	64	13.7
Merchant	50	10.7
Farmer	76	16.2
Unknown	69	14.7
other***	26	5.5
Residence		
Urban	311	66.2
Rural	159	33.8
Religion		
Orthodox	190	40.3
Muslim	186	39.5
Protestant	92	19.5
Other****	3	0.6

*=Widowed and Divorced, **=Merchants &Farmer, ***=Driver (Bajaj, long vehicle...),****=waaqeffataa, catholic Unknown=For mother who is raped and couldn't now the age of doer.

4.2. Reproductive and Contraceptive History of Participants

Among participating women, 253 (53.7%) had no history of pregnancy and 335 (71%) were used at least one of the contraceptive methods before current pregnancy. Regarding methods used, 191 (45.3%) used depo provera followed by 110 (26.1%) implants. Among those who didn't used any contraceptives, 96 (61%) claimed that they didn't planned to have a sex or pregnancy. 77 (16%) of the participants had history of abortion out of which 7 (9.6%) were having more than three abortions. 44 (58%) of those abortions were induced. 406 (86.4%) of the current abortion were induced medically by medication of which more than half 248 (52.7%) were due to unintended pregnancy (table 3).

Table 2. Reproductive and contraceptive characteristics of participants who received abortion service at AHMC during january-1 to february-30, 2021.

Gravidity	n	%
primi	253	53.7
Grandmulti	195	41.4
multi	23	4.9
Hx of FP use		
Yes	335	71.1
No	136	28.9
Method used		
DMPA	191	45.3
Imp	110	26.1
IUCD	11	2.6
Pills	108	25.6
Other*	2	0.5
Why not used		
not planned to have sex	96	61.1
used Natural methods	23	14.7
Opposition from partner	19	12.1
Others**	19	12.1
Hx of Abortion		
Yes	77	16.3
No	394	83.7
Number of abortion		
1	53	72.6
2	13	17.8
3 and more	7	9.6
Types of previous abortion		
Spontaneous	32	42.1
Induced	44	57.9
Types of current abortion		
Spontaneous	64	13.6
Induced	406	86.4
Reason of termination		
Unintended	248	52.7
Congenital anomaly	91	19.3
missed	86	18.3
Other***	45	9.5
GA (wks)		
<=12	190	40.4
28-Dec	280	59.6

*=Condom, Natural. **=Religious, Assumes menopause, fear of side effect, do not know about FP. ***=Incomplete & Inevitable

Table 3. Facility and HCP related factors of participants who received abortion service at AHMC during january-1 to february-30, 2021.

Methods of termination	n	%
MA	385	81.7
MVA	81	17.2
Mixed	5	1.1
Counseled now		
Yes	438	93
No	33	7
Time of counseling		
Before	376	86.6
During	21	4.8
After	38	8.8
Received now		
Yes	348	73.9
No	123	26.1
Method received		
DMPA	85	24.4
Imp	241	69
Others*	23	6.6
Why not received		
Didn't understood the counseling	9	4.1

Methods of termination	n	%
No service (selected methods)	7	5.7
To have discussion with partner	53	43.1
Lives alone	3	2.4
To get pregnant soon	40	32.5
Other**	15	12.2

*=IUD, Pills & BTL **=Will receive after stabilized, Refusal, Natural

4.3. Facility and HCP related Factors

For 385 (81.7%), the method of termination were medical or drug and 81 (17.2) were performed by manual vacuum aspiration. 438 (93%) of the participants were counseled on post abortion contraceptives and it was occurred before the procedure for 376 (86.6%) of the participants. 348 (73.9%) was discharged after using post abortion family planning. LAFP dominated the used method of which implant accounts for 241 (69%) while Depo-provera was 85 (24.4%). 53 (43%) of those who didn't received were planned to take after having discussion with their partner (table 4).

4.4. Knowledge and Attitude Status of Participants

41.2% were having good knowledge while 49.7% were had positive attitude towards post abortion contraceptives (figure 1).

4.5. Factors Associated with Post Abortion Contraceptive Utilization

From the variables selected by simple regression at p-value of 0.25, Maternal education, procedure done, counseled, knowledge status and reason for termination were found to be significantly associated with the odds of using post abortion contraceptives (p-value <0.05).

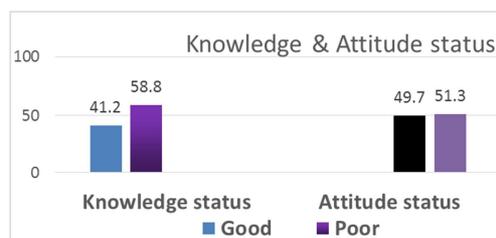


Figure 1. Knowledge and Attitude of participants on post abortion family planning at AHMC january-1 to february-28/2021.

As per the result of multivariate analysis the odds of using post abortion family planning among women having diploma level of education was 28.37 (AOR=28.37; 95% CI: 4.09-196.834) times higher than those having no formal education. Similarly having secondary level education was associated with 10.75 (AOR=10.75; 95% CI: 1.885-61.295) times higher odds of using Post abortion family planning compared to having no formal educations. The odds of using PAC among woman for whom MVA was done was 58.9% (AOR=0.411; 95% CI: 0.169-0.991) lesser compared to women for medical abortion. Those who were not counseled were 97% (AOR=0.03; 95% CI: 0.006-0.149) time lesser than those who were counseled.

Poor knowledge was associated 43% (AOR=0.569; 95% CI: 0.337-0.961) lesser compared to their counterparts. On the other hand termination of pregnancy for inevitable abortion was associated 12.242 (AOR=12.242; 95% CI: 1.927-77.784) times higher than unintended and 2.809 (AOR=2.809; 95% CI: 1.406-5.613) times higher for those with congenital anomaly (table 5).

Table 4. Factors associated with post abortion contraceptive utilization at AHMC during january-1 to february-30, 2021.

Variables	PAFP use		Unadjusted and adjusted OR	
	Yes	No	COR (95% CI)	AOR (95% CI)
Maternal Education				
Primary	99	39	1.745 (0.709-4.291)	4.408 (0.965-20.13)
Secondary	142	45	1.403 (0.579-3.404)	10.749 (1.885-61.295)**
Diploma	39	24	2.725 (1.038-7.153)	28.375 (4.09-196.834)***
Degree & above	37	8	0.958 (0.312-2.938)	6.006 (0.732-49.304)
No formal education	31	7	Ref	Ref
procedure done				
MA	277	108	Ref	Ref
MVA	69	12	0.446 (0.232-0.856)	0.411 (0.169-0.991)***
Mixed	2	3	3.847 (0.634-23.343)	6.217 (1.741-52.177)
Counseled now?				
Yes	346	92	Ref	Ref
No	2	31	0.017 (0.004-0.073)	0.03 (0.006-0.149)***
Knowledge status				
good	137	57	Ref	Ref
poor	211	66	0.752 (0.497-1.138)	0.569 (0.337-0.961)*
Reason for terminations				
unintended	208	40	Ref	Ref
Anomaly	62	29	2.432 (1.395-4.24)	2.809 (1.406-5.613)**
Missed	51	35	3.569 (2.064-6.169)	3.514 (1.674-7.375)***
Inevitable	4	13	16.9 (5.242-54.486)	12.242 (1.927-77.784)**
Incomplete	22	6	1.418 (0.541-3.719)	2.232 (1.362-13.754)

5. Discussion

In this study the magnitude of post abortion family planning was found to be 348 (73.9%). This study was almost similar with the study conducted in jimma 71.1% [26] and shire 70% [28]. However it had the difference with that of bahardar 90% [24]. This may be due to the sampling or the difference of sample size b/n two studies. The finding was also far from that was conducted in mariestopes international Ethiopia 90% [23]. The variation could be from the difference of the level of care, competency of the staffs and monitoring of the performance by the seniors of institution.

Moreover this studies finding was in line with the study conducted in eight selected African countries 73% [22] and Australia 71.1% [21]. The finding of this study was not similar with the study done in Nigeria, Darussalam 90.2% [29]. The difference could be for the level of awareness of the community, availability of the commodities and sample differences.

This study revealed the factors associated with post abortion contraceptive usage like maternal, procedure done, counseling, knowledge status and reason for termination of pregnancy as significantly associated predictors (p -value<0.05). Accordingly, the odds of PAFP use among women of diploma level of education were 28 times higher than those of primary level and 10 times for secondary level. This association was also observed by the study done in Tigray [28], saint pauls [25] and Tanzania [29]. The increment in the level of education increases people's ability of analyzing risks and benefits of the outcome and exposure to different sources of information.

The study showed that the technology or method used for termination was associated with contraceptive use. Accordingly, clients for whom MVA was done were 58.9% lesser compared to those of MA. The analytical studies conducted in eight selected African countries also identified the technology used as one of the risk factors [21]. The patients for whom MVA was done had short time of stay at the hospital during which they stabilize themselves from pain associated with the procedure. Despite counseling they prefer to use the contraceptives after recovery and leave the institution without use if not done before the procedure.

According to this study the odds of using FP for those who were counseled on Fp options were 97% time higher than their counterparts. The studies conducted in shire town [27] and Zanzibar [30] showed that counseling had a great contributions.

Additionally having poor knowledge about contraceptive was found to be 43% times lesser likely to use. If counseling is not considering the level of knowledge of clients, they just refuse usages without claiming no reason or immediately require removal. Misconception in the community couldn't be changed shortly by similar ways of counseling for all clients. Reason for termination/ type of abortion was also identified as associated factors in this study. Those with spontaneous abortion need contraceptive for spacing while induced (unintended especially raped) though that they will not raped

again and deny the use.

6. Conclusion

In general according to this study, the magnitude of post abortion contraceptive was low (73.9%) compared to our national figure (78%). LAFP accounts for 73% of the methods used (69% Implants & 4% IUCD). 43% of those who didn't used were for having discussion with partner. The educational level, Technology used for termination, counseling, knowledge status and reason for termination were found to be significantly associated with the outcome.

7. Recommendation

Hospital:

1. Assess the level of competency of the provider in counseling and provide refresher training.
2. Monitor and evaluate the service being given regularly even from data of monthly report.

Health care providers:

1. Use their potential and tactic of counseling which encompasses all.
2. Provide contraception for whom MVA is done before the procedure.

Town and regional health bureau:

Create awareness to community on family planning through mass media like radio & television.

Researcher:

Under go the research on knowledge and attitude status of service provider on post abortion family planning.

Strength and Limitations

Strength:

Interviewing at exit

Limitation:

Inability to observe the knowledge status and attitude of providers on post abortion family planning during counseling.

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