

Assessment of Post Abortion Contraceptive Intention and Associated Factors among Abortion Clients in Gondar Town, North West Ethiopia, 2013

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Abstract Unintended pregnancies continue to be a major global tragedy for millions of women and abortion is an issue which affects every country in the world. The World Health Organization estimates that 20 million unsafe abortions take place each year, in which 80,000 maternal deaths occur due to complications. Cross-sectional study was employed to assess post abortion contraceptive intention and associated factors among abortion clients in Gondar town, Northwest Ethiopia 2013. Six hundred thirty study subjects were included in the study by using a simple random sampling technique. The collected data entered and analyzed by using SPSS version 20.0 software packages. The degree of association between independent and dependent variables were assessed using odds ratio with 95% confidence interval and p-value ≤ 0.05 . The data analyzed using bivariate and multivariate logistic regression. A total of 630 study participants with abortion were assessed. The extent of the post abortion contraceptive intention among 630 clients was (73.5%). Divorced/widowed women [AOR: 0.277, 95% CI :(0.151, 0.508).] was a factor negatively associated with the post abortion contraceptive intention whereas married women [AOR: 1.747, 95% CI :(1.046, 2.916)], abortion from unintended pregnancy [AOR: 3.430, 95% CI (1.597, 7.366) and post abortion contraceptive counseling [AOR: 2.627, 95% CI: (1.366, 5.049)] were factors positively associated with post abortion contraceptive intention. Generally, the post abortion contraceptive intention found in this study was low as compared with others study. Variables like married women, divorced/widowed, abortion from unintended pregnancy and post abortion contraceptive counseling were significant predictors of the post abortion contraceptive intention.

Keywords Post Abortion, Modern Contraceptive, Intention

1. Introduction

Globally 180-200 million pregnancies occurred per year. Among them 75 million pregnancies become unwanted and 585,000 Maternal Mortality occur related to pregnancy complication. Among the maternal mortality, 99% occur in the developing world (1). Globally different factors contribute to this large number of maternal mortality, among them abortion accounts for approximately 13% of all maternal mortality (2).

Abortion is an issue which affects every country in the world. World Health Organization estimates that 20 million unsafe abortions take place each year, in which 80,000 maternal deaths occur due to complication (3). The unsafe abortion defined by WHO as a procedure for terminating an unintended pregnancy either by persons lacking the necessary skills or in an environment lacking the minimal medical standards, or both(4).

The abortion mortality rate observed in developing and developed countries were 400 and 0.2-1.2 per 100,000 abortions respectively. But this mortality rate became worst in Africa which was 680 per 100,000 abortion cases (5).

Ethiopia, as in many developing countries, pregnancy related complications are believed to be one of the leading causes of death of women among reproductive age groups. It has also high maternal mortality ratio which is 676 per 100,000 live births and low modern family planning coverage which is 27% among married women (6). These have a great contribution for unintended pregnancy for sexual active age group in the country. These Untimely and unwanted pregnancies adversely affect the health of women which leads to unsafe abortion which end up in morbidity and mortality among women in her reproductive age.

Ethiopia has a reform of abortion law since 2005 and the penal code was revised to broaden the indications under which abortion is permitted in the country to reduce maternal

mortality due to unsafe abortion. The revised law permitting to terminate the pregnancy when the pregnancy results from rape or incest, when continuation of the pregnancy endangers the health or life of the Woman or the fetus, in cases of fetal impairment, women with physical or mental disabilities, minors who are physically or psychologically unprepared to raise a child and in cases of grave and imminent danger that can be averted only through immediate pregnancy termination(7).

The research done in Ethiopia in 2008 after the liberalization of abortion law revealed that an estimated 382,000 induced abortions were performed. Among them, 103,000 legal procedures performed in the health facilities. As a result of this the abortion rate was 23 per 1,000 women among the age group of 15–44(8). In another study conducted in Ethiopia, the national case fatality rate 628 per 100,000 among women seeking post abortion care was the most serious complications seen in public hospitals (9). These show that unsafe abortion is a prevalent and serious public health problem among women of reproductive age group in the country.

Ethiopia is one of the country with high maternal mortality ratio and high prevalence of unsafe abortion among reproductive age in the country. These woman health condition become a major concern for the health authorities to liberalize the abortion law in 2005. This liberalized law is a good opportunity for both the clients and the health institution to avert the incidence of abortion by providing modern contraceptive method after abortion service.

The post abortion contraceptive intention of women has paramount benefit to reduce maternal mortality from unintended pregnancy; in spite of this fact, this component remains one of the weakest parts of post abortion care. Moreover, my knowledge is concerned no study is done in the particular study area especially in Amhara region, Gondar town. So the result of this study will determine the current status of the proportion of women that have intention for modern contraceptive method and associated factors after abortion care. Therefore, the study will be serving as a source of information for stakeholders and partner's to make possible interventions to improve the level of post abortion contraceptive intention in Gondar town.

2. Objectives of the Study

General objective

Assess the post abortion contraceptive intention and associated factors among abortion clients in Gondar town in 2013.

Specific objectives

- To determine the proportion of women s' intention for modern contraceptive methods after abortion care.
- To identify factors associated with the post abortion contraceptive intention.

3. Methods and Materials

Study design

An institution based cross-sectional quantitative study was conducted to assess the post abortion contraceptive intention among abortion clients.

Source population

All women who came to the Hospital gynecology ward/OPD, health centers and clinical examination room with a diagnosis of abortion and seeking termination of abortion services in Gondar town.

Study population

All women who came to the Hospital gynecology ward, health centers and clinical examination room with a diagnosis of abortion and seeking termination of abortion services with in July to September.

Inclusion criteria

Clients who came for both safe abortion and post abortion care services were included in the study.

Exclusion criteria: Those referral cases were excluded from the study.

Sample size

The Sample size is determined by using single population proportion formula with the following assumption: $z\alpha/2 = (1.96)$, is standardized normal distribution curve /value for the 95%; proportion of post abortion contraceptive intention which is 83%(10) ; the margin of error taken (0.03); Non response rate 10%

$$n = \frac{\left(\frac{z\alpha}{2}\right)^2 pq}{W^2}$$

The total sample size for this study was 662 of women seeking abortion care in the study area including 10% non-response rate.

Sampling procedure

Among the different health institution from public, private and NGO based clinics found in Gondar town, eleven health institution has provided abortion service and report to the Gondar town health office. Among them, Gondar referral Hospital, Salem medium clinic, MSIE Gondar clinic, FGA-Gondar clinic and poly health centre were selected by a simple random sampling technique using lottery methods.

The sampling allocation was based on the three months average number of client flow for abortion services in each of the health institution. The three months average abortion services for Gondar Hospital was 120 clients, Selam medium clinic 100 clients, poly health centre 65 clients, Gondar MSIE 120 clients and Gondar FGA 70 clients. Proportional allocation for each of the selected institutions using a sample size of 662 was used and the allocated sample for each

institution became Gondar Hospital 167 clients, MSIE Gondar clinic 167 clients, Selam medium clinic 139 clients, FGA clinic 98 clients and poly health centre 91 clients.

Data collection tools and procedures

Data were collected using a structured questionnaire. The questionnaire was first prepared in English then translated into the local language (Amharic) and data collected by interviewing clients that fulfill the inclusion criteria.

One supervisor and five data collectors had participated in the data collection process and took two days intensive training with field practice on how to conduct the data collection process to maximize data quality throughout the collection period. The period of data collection took three months in the selected health institution from July 1-September 30, 2013.

Variables of the study

Dependent variable

Post abortion contraceptive intention (Yes/No)

Independent/ explanatory variables

1. Socio-demographic variables: Age, marital status, religion, residential area, women Occupation, women Educational status, family income
2. Previous history: Number of children, previous induced abortion, current contraceptive while pregnant, previous visit of this institution, source of information for FP
3. Present history: Desire of pregnancy, type of institution, method of termination, post abortion FP counseling

Operational definitions

Post abortion contraceptive intention: a post abortion client's future need of using family planning methods after termination of pregnancy and including those clients who uses family planning immediately after the procedure considered as having the intention for modern family planning method.

Current contraceptive while pregnant: women came for abortion service in spite of taking contraceptive.

Desire of pregnancy: Abortion clients terminate either wanted or unwanted pregnancy.

Post abortion family planning practice: the abortion clients prefer and used modern contraceptive method after the medical or surgical procedure.

4. Data Processing and Analysis

The collected data were cleaned and entered into EPI INFO version 2000 statistical software and then transferred to SPSS Windows version 20.0 for further analysis. Frequencies and cross tabulations were used to summarize descriptive statistics of the data using tables and figures that used for data presentation. Bivariate analysis was used

primarily to check which variables had association with the dependent variable individually. Variables found to have an association with the dependent variable was then entered into Multiple Logistic regression for controlling the possible effect of confounders and finally the variables which had significant association were identified on the basis of OR, with 95%CI and p-value 0.05 to fit into the final regression model.

5. Ethical Consideration

Ethical clearance was obtained from the Ethical review board of the University of Gondar. Communication with the head of each health institution and department head was made through formal letter obtained from the University of Gondar. After the purpose and the objective of the study had informed, verbal consent was obtained from each study participant. Participants were informed about they had the right to withdraw from the study at any time if they were not comfortable about the questionnaire. In order to keep confidentiality of any information provided by the study subjects, the data collection procedure was maintained anonymous. The study participants were informed about the purpose of the study, procedure of the study, possible risks and benefits from the study.

6. Results and Discussion

Socio-demographic characteristics of the study Participants

A total of 662 post abortion clients, in the reproductive age group of 15-49 years, were planned and only 630 clients participated in this study with a response rate of 95%. The mean (\pm SD) age of the respondents was 24.12 (\pm 5.11) years and the majority age group (41%) of the respondents were between the age group of 20-24 years. Majority of the respondents were single (57.9%), urban dwellers (74.3%), secondary school students (43.7) and had no children before this time (63.3%) (Table 1).

The present history characteristics of respondents

Majority of the respondents (56.7%) had mistimed pregnancy. Most of the respondents (92.5%) got the post abortion contraceptive counselling; among them (90.3%) understands the benefit of family planning service and the presence of different contraceptive methods (Table 2).

The previous history characteristics of the respondent

The majority of the respondents (92.4%) had sources of information for the different family planning services. Among the different source, 43% of the respondents got information about family planning from radio. In spite of took contraceptive, one third of the respondent (29.5%) had pregnancy specifically due to the inappropriate use of combined oral contraceptive pill and emergency contraceptive pill (Table 3).

Table 1. Socio demographic characteristics of post abortion clients in Gondar town, 2013

Socio-demographic characteristics	Frequency	Percent
Age		
15-19	107	17
20-24	258	41
25-29	165	26.2
30-34	75	11.9
35-49	25	4
Marital status		
Single	365	57.9
Married	194	30.8
Divorced/widowed	71	11.3
Religion		
Orthodox	524	83.2
Muslim	89	14.1
Others*	17	2.7
Women Education		
Primary and below	181	28.7
Secondary	275	43.7
Tertiary	174	27.6
Residential area		
Urban	468	74.3
Rural	162	25.7
Women Occupation		
Student	209	33.2
Government employee	98	15.6
Private employee	142	22.5
Housewife	115	18.3
Jobseeker	51	8.1
Others**	15	2.4
Family Income assessment		
Poor	198	31.4
Medium	234	37.1
Rich	198	31.4

*protestant, catholic

**House servant

Table 2. Present history characteristics of post abortion clients in Gondar town in 2013

present history characteristics	Frequency	Percent
Desire of pregnancy		
Unwanted	238	37.8
Wanted	35	5.6
Mistimed	357	56.7
Method of Termination		
Pill	495	78.6
MVA	119	18.9
Both	16	2.5
Type of institution		
Public	240	38.1
Private	138	21.9
NGO clinics	252	40
PAFPC		
No	47	7.5
Yes	583	92.5
Benefit of FP		
No	61	9.7
Yes	569	90.3
Choice of FP		
No	62	9.8
Yes	568	90.3
Male as a partner		
No	496	78.7
Yes	134	21.3
Side effect of contraceptive		
No	173	27.5
Yes	457	72.5
Duration of FP		
No	157	24.9
Yes	473	75.1
Presence of medical illness		
No	487	77.3
Yes	143	22.7

Table 3. previous history characteristics of abortion clients in Gondar town in 2013

previous history	characteristics	Frequency	Percent
		Number of children	
	No children	399	63.3
	One and more children	231	36.7
Previous abortion	No	539	85.6
	Yes	91	14.4
Current contraceptive while pregnant	No	444	70.5
	Yes	186	29.5
	Previous visit of institution		
	No	471	74.8
	Yes	159	25.2
	Who have information on family planning		
	No	48	7.6
	Yes	582	92.4
	Type of source of information		
Radio	No	359	57
	Yes	271	43
Television	No	383	60.8
	Yes	247	39.2
Public health institution	No	421	66.8
	Yes	209	33.2
Peer	No	422	67
	Yes	208	33
Private health institution	No	547	86.8
	Yes	83	13.2
Leaflet	No	616	97.8
	Yes	14	2.2

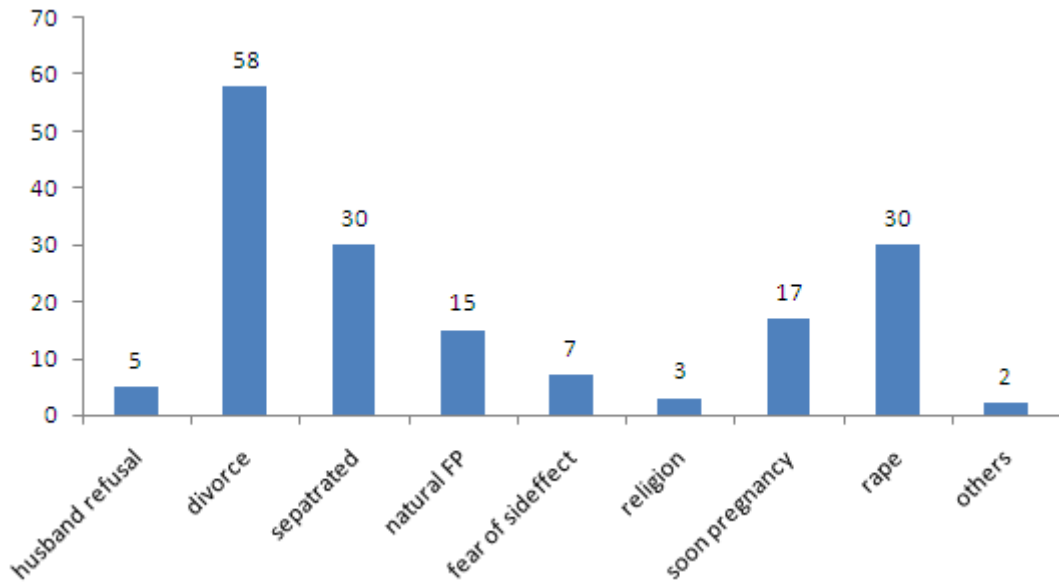


Figure 1. Reason for post abortion clients for not having intention after abortion service in Gondar town in 2013.

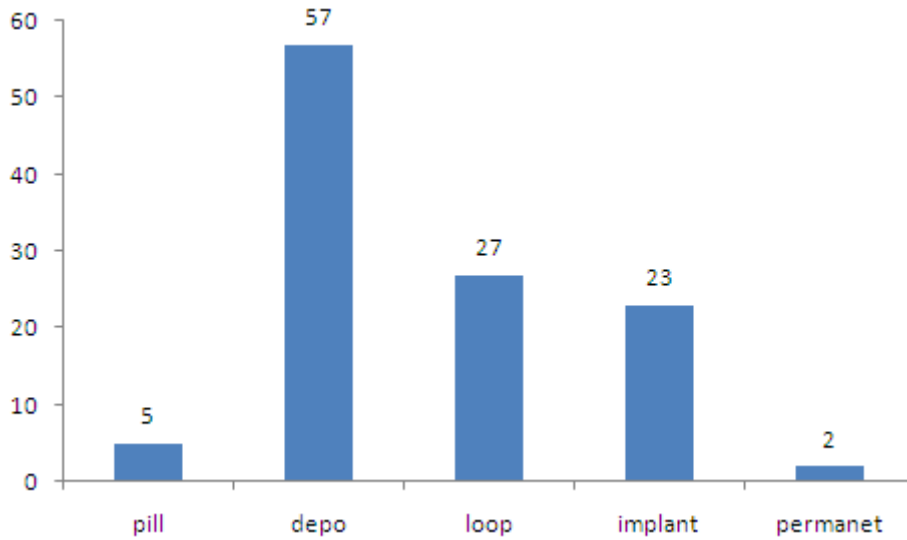


Figure2. Future contraceptive needs of post abortion clients in Gondar town in 2013

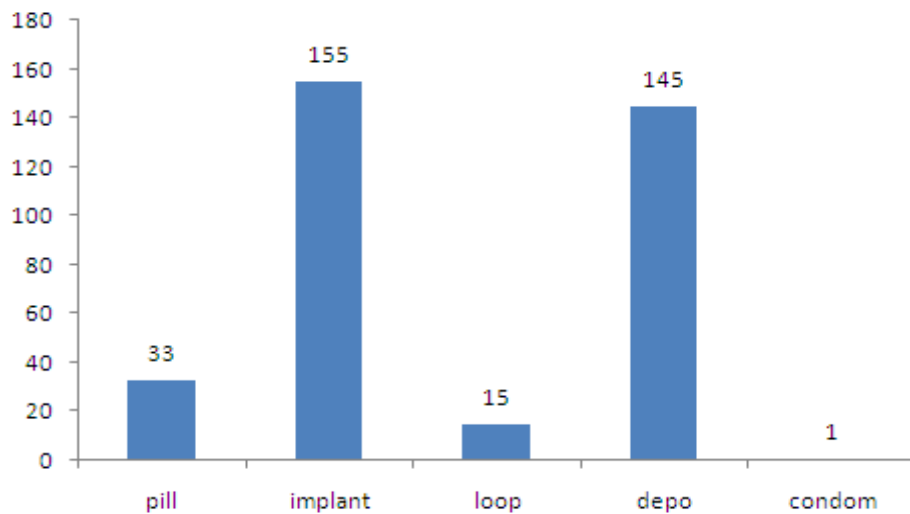


Figure 3. Actual contraceptive users of post abortion clients in Gondar town in 2013

Post abortion contraceptive intention

Here after all the post abortion contraceptive intention found in this study was 73.5% which includes both actual contraceptive users and those who have the need to use contraceptive in the future. On the other hand, those clients who didn't have intention for contraceptive contributed 26.5%. One third of the respondents (26.5%) had no intention to use post abortion contraceptive. The main reason for not having intention was divorced (34.73%) and those separated and raped respondents each of them contribute (17.96%) for not having intention for contraceptive after abortion service.

More than two third of the respondents 463 (73.5%) had the intention to use modern contraceptive after abortion service. Among them 114 (18.1%) will have the intention to use contraceptive in the future.

More than two third of the respondent 463 (73.5%) had the intention to use post abortion family planning contraceptive. Among them 349 (55.4%) were actual contraceptive users after abortion service.

Factors associated with the post abortion contraceptive intention

Multivariate analysis showing association of variables with post abortion contraceptive intention

Table 1. Association of variables with post abortion clients on contraceptive intention after abortion service in Gondar town in 2013

Variable	Contraceptive intention		COR (95%CI)	AOR (95%CI)
	No	Yes		
Age category				
15-19	24	83	1	1
20-24	60	198	0.954(0.557 ,1.635)	0.986(0.534 ,1.820)
25-29	47	118	0.726(0.412 ,1.279)	0.744(0.364 ,1.523)
30-34	28	47	0.485(0.253 ,0.932)*	0.564(0.224 ,1.423)
35-49	8	17	0.614(0.236 ,1.597)	0.679(0.197 ,2.340)
Marital status				
Single	86	279	1	1
Married	38	156	1.265(0.824 ,1.944)	1.747(1.046 ,2.916)*
Divorced /widowed	43	28	0.201(0.118, 0.342)*	0.277(0.151 ,0.508)*
Religion				
Orthodox	133	391	1	1
Others*	34	72	0.720(0.458 ,1.133)	0.818(0.489 ,1.368)
Education				
Below primary	64	117	1	1
Secondary	70	205	1.602(1.065 ,2.409)*	0.950(0.559 ,1.614)
Tertiary	33	141	2.337(1.437 ,3.801)*	1.314(0.677 ,2.552)
Residence				
Urban	115	353	1	1
Rural	52	110	0.689(0.466 ,1.019)	0.824(0.516 ,1.315)
Occupation				
Govern. Employee	23	75	1	1
Private employee	32	110	1.054(0.572 ,1.942)	1.369(0.719 ,2.604)

House wife	43	72	0.513(0.282 ,0.936)*	0.769(0.394 ,1.503)
Students	42	167	1.219(0.685 ,2.171)	1.314(0.713 ,2.423)
Jobseeker/others	27	39	0.443(0.225 ,0.872)*	0.549(0.269 ,1.119)
institution choice				
Public	74	166	1	1
Private	40	98	1.092(0.690 ,1.728)	0.806(0.487 ,1.337)
NGO	53	199	1.674(1.113 ,2.518)*	1.280(0.806 ,2.031)
institution visit				
No	116	355	1	1
Yes	51	108	0.692(0.467 ,1.026)	0.827(0.530 ,1.290)
History of abortion				
No	148	391	1	1
Yes	19	72	1.434(0.836 ,2.461)	1.047(0.556 ,1.970)
Desire of pregnancy				
Wanted	17	18	1	1
Unintended	150	445	2.802(1.408 ,5.576)	3.430(1.597 ,7.366)*
PAFPC				
No	24	23	1	1
Yes	143	440	3.211(1.758 ,5.863)	2.627(1.366 ,5.049)*
Source of information				
No	17	31	1	1
Yes	150	432	1.579(0.850 ,2.936)	1.566(0.802 ,3.058)
FP while pregnant				
No	127	317	1	1
Yes	40	146	1.462(0.974 ,2.194)	1.120(0.713 ,1.760)
Wealth index				
Poor	59	139	1	1
Medium	65	169	1.104(0.727 ,1.676)	0.837(0.521 ,1.343)
Rich	43	155	1.530(0.971 ,2.411)*	1.195(0.717 ,1.990)
Parity				
Nulliparous	95	304	1	1
Primiparous	32	76	0.742(0.463 ,1.191)	1.055(0.565 ,1.971)
Above primiparous	40	83	0.648(0.471 ,1.009)*	1.171(0.593 ,2.314)

*P < 0.05 and confidence interval for the odds ratio does not include one in the interval

7. Discussion

The level of post abortion contraceptive intention in this study was 73.5% based on the structured questionnaire. Factors found to be associated with the dependent variable were married, divorced/widowed, desire of pregnancy and post abortion family planning counseling have found to be a significant effect on the outcome variable.

The finding of this study 73.5% of post abortion contraceptive intention was below the study done in India and Nepal which were 100% (11) and 83% (10) respectively. Again the research conducted in Tanzania for post abortion contraceptive 89 % suggests that high rate of contraceptive intention (12). The study conducted in Pakistan for post abortion contraceptive use 72.9 % observed was almost similar finding as this study in 2011(13). But on the contrary, the research done in India in 2012 and the research done in Kenya in 2004 show low contraceptive intention after abortion (30 % and 31 % respectively) than the finding of this study(14, 15).

Married have 74.7% more likely to have post abortion contraceptive intention than being single. But on the contrary the research done in Addis Ababa shows that marital status had not statistically significant association with the odds of using post abortion care services with a modern family planning method (13).

Divorced/widowed women reduced by 72.3% to have post abortion contraceptive intention than single. On the contrary the research done in Addis Ababa shows that marital status had not statistically significant association with the odds of using post abortion care services with a modern family planning method (13).

Clients got the post abortion contraceptive counseling have 2.63times higher for having contraceptive intention than from who did not get contraceptive counseling. But this finding was a bit lower than the research done in Kenya which stated that Women who received contraceptive counseling were three times more likely to adopt a modern contraceptive method (15).

Abortion of unintended pregnancy has 3.43 times higher for having post abortion contraceptive intention than abortion from wanted pregnancy. This finding was a bit higher than the research done in Kenya which shows that Women who had unplanned pregnancy were three times more likely to adopt a contraceptive method (15).

The post abortion contraceptive practice used in this study was 55.4%; among them IUCD and permanent family planning contributed 4.3% and 0% respectively. But this finding was very low finding than the study conducted in India for IUCD and permanent family planning were 51.5% and 24.7% respectively (11).

The future contraceptive need found in this study was 18.1%. Among them IUCD and permanent were 23.68% and 1.7% respectively. This IUCD finding was in line with the study conducted at Karnataka which was 22.7% but the permanent method found in this study was very low (22.7 %) than again the study conducted at Karnataka (16).

8. Conclusions

Based on the findings of this study we can conclude that generally the post abortion contraceptive intention was low as compared to other study. Factors associated with the dependent variable was divorced/widowed negatively associated with post abortion contraceptive intention and married women, desire of pregnancy and post abortion family planning counseling were positively associated with the post abortion contraceptive intention.

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