

## Factors Influencing Utilization of Post Abortion Care in Selected Governmental Health Institutions, Addis Ababa, Ethiopia

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### Abstract

**Background:** In Ethiopia, utilization of post-abortion care service is minimal and it seems that the expanding services are underutilized. The aim of this study was to assess factors which influence utilization of post abortion care service among reproductive age (15-49 yrs) women in selected governmental health institutions in Addis Ababa, Ethiopia.

**Methods:** Institution based cross sectional study was conducted among 153 respondents aged 15-49 years in six health institutions in Addis Ababa, Ethiopia. Respondents were obtained proportionally and interviewed consecutively with convenience to respond for the structured pre-tested questionnaire. Data were entered into Epi Info version 3.5.1 and analyzed by using SPSS version 20 software for windows. Bivariate and multivariate logistic regression analyses were done.

**Results:** Sixty nine percent of the respondents were not utilized post abortion care services among the selected health institutions. Spontaneous abortion (AOR=2.22 [95% CI=1.21, 16.74]) and knowledge of respondents towards elements of post abortion care (AOR=4.30 [95% CI = 1.32, 13.99]) were found to have statistically significant association with post abortion care utilization.

**Conclusion:** Addressing and scaling up efforts on community health education and developing guideline related to post abortion services for health extension workers will increase the utilization of post abortion care in health facilities.

**Keywords:** Post abortion care; Reproductive; Utilization

### Introduction

Worldwide, each year more than 500,000 women, 99% of them in developing countries, die from pregnancy and childbirth-related complications and an additional 15 to 20 million women suffer from debilitating consequences of pregnancy [1]. The major causes of maternal deaths are hemorrhage, infection, obstructed labor, hypertensive disorders in pregnancy, and complications of unsafe abortion [2].

Maternal deaths due to unsafe abortion in developing countries fall within a narrow range from 9% to 17% of all maternal deaths [3]. Both the lowest and the highest figures are found in Africa (9% in Southern Africa and 17% in Eastern Africa), reflecting the combined impact of the legal abortion and health systems, with more liberal access to abortion and post abortion care in the health systems [3].

Ethiopia is one of the counties with highest maternal mortality ratio which is currently estimated at 676/100,000 live births [4]. Main contributing factors for this high death includes unsafe abortion, among others [5]. Several studies in Ethiopia indicated that unsafe abortion may account for up to 25-35% of the maternal deaths [6-8]. A recent nationwide study on abortion related complications has shown that an estimated number of 17 patients are seen in hospitals for post abortion complications in a month and complications due to abortion were also reported from low-level facilities, which do not provide post abortion care services [9]. From a community based large-scale survey in Addis Ababa, Ethiopia, maternal mortality in the city was estimated to be 566 per 100,000 live births and abortion was major contributor to the deaths [4,8,10]. In addition, safe abortion service is a recent trend and a formal post abortion care (PAC) service in the country is not yet well expanded [3,11,12]. Thus this study assessed the influencing factors of PAC utilization in selected health institutions in Addis Ababa, Ethiopia.

### Methods

#### Study design, area and period

An institution-based cross sectional study was conducted among reproductive age women (15-49 years) who were attending maternal and child health (MCH) services using structured interviews. A total of 153 respondents were recruited from six MCH clinics in Addis Ababa, Ethiopia. Data were collected between February and April, 2012. There were 620 clients attending MCH services that obtained from monthly registration report of MCH clinics in these six MCH clinics. Respondents were recruited proportionally to the client flow from each MCH clinics. For the purpose of this study, we defined users of post abortion care as women of childbearing age who had received all components of post abortion care services, and non users of post abortion care as women of childbearing age who had not received all of the components. We used the inclusion criteria as all reproductive age women with at least one abortion history in the last one year, and exclusion criteria as all reproductive age women who had no any abortion history, women with hearing problem, and mentally incompetent women during the study period.

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## Sampling

The sample size was calculated using single population proportion formula with estimated proportion of post abortion care utilization among women aged 15 - 49 years put at 10% [13]. Assuming a marginal error of 5% and a 10% non-respondent rate, the estimated sample size was 153.

## Data Collection

Pre-tested structured questionnaire was prepared by reviewing previously done studies on the topic of utilization of post abortion care [5,9,11,13,14]. The questionnaire was first prepared in English and then translated in to Amharic, the local language of the respondent in the study area. The data were collected using structured interviewer-administered questionnaire. The questionnaires were administered to all respondents of aged 15 to 49 years who were attending the MCH clinics during the data collection period, and who met the inclusion criteria. The interview took place while these respondents waited for their MCH services in the clinic. In addition, respondents provided demographic information such as age, marital status, religion, occupation and monthly income. Respondents who had not received post abortion care service were asked the main reasons why they have not used the services.

## Data quality control

Data were collected by six diploma midwives who were not working in the selected MCH clinics. One day training was given about the objectives and procedures of the data collection by the investigators. Questionnaire was pre-tested at Zewuditu Hospital to assess clarity, understand ability, flow and consistency, and revised prior to the start of data collection. Data completeness and consistency was checked by the investigators. Data cleaning and editing took place; missed values were statistically handled to help address concerns.

## Data analysis

Data were entered using Epi Info version 3.5.1 and exported to, and then analyzed using SPSS version 20. First, descriptive statistics were carried out to explore the socio-demographic characteristics of respondents and the results were summarized as frequencies and percentages between respondents who used the service and those who did not utilize. To determine which factors were associated with utilization of post abortion care, binary and multiple logistic regressions were employed. Variables associated with post abortion care utilization in bivariate analyses were included in the multiple logistic models and P-values less than 0.05 were considered to be statistically significant in all cases.

## Ethical consideration

Ethical approval and clearance was taken from institutional review board of College of Health Sciences, Addis Ababa University. The Addis Ababa Health Bureau gave permission to conduct the study in each MCH clinics in the study area. After the purpose of the study was explained, a written informed consent was obtained from respondents before data collection. Respondents were informed that participating in the study was voluntary and that refusal to participate would not compromise their services in MCH clinics. The right to withdraw from the study at any time was also assured. The interviews were conducted in a waiting private room in the clinic to ensure privacy. Coding was used to eliminate names and other personal identification of respondents throughout the study process to ensure participants confidentiality.

## Results

### Demographic characteristics

A total of 153 participants aged 15-49 years were interviewed. Of 153, 105 (68.6%) of respondents didn't utilize post abortion care, where as only 48 (31.4%) of them did utilize post abortion care in the selected health institutions. The mean age of the respondents was 27 years (range 17- 40 years). More than half 92 (60.1%) of the study subjects were between 26-35 years of age (Table 1).

### Obstetric characteristics

About 144 (94.1%) of the participants reported one abortion where as 9 (5.9%) of the participant reported two abortion in the last three years. Majority 104 (68%) of the participants had induced type of abortion where as 49 (32%) of participants had spontaneous type of abortion (Table 2).

### Factors associated with post abortion care utilization in governmental health institutions

Bivariate analysis in the binary logistic regression model showed that knowledge of women towards elements of post abortion care service was significantly associated with PAC utilization; respondents who had knowledge about elements of PAC were utilized post abortion services about 7 times when compared to who didn't utilize (COR=6.67 [95% CI=2.84, 15.61]). Women's who had good attitude towards post abortion care were utilize PAC service 15 times than who had bad attitude towards the service (COR=15.22 [95% CI=6.59, 35.15]). Women's who had spontaneous type of abortion were utilize 5 times

Variable	PAC utilized		PAC not utilized			
	n=48	%	n=105	%	N=153	%
<b>Age</b>						
15-25	17	35.4	36	4.3	53	34.6
26-35	29	60.4	63	60.0	92	80.1
Above 35	2	4.2	6	5.7	8	5.3
<b>Education</b>						
Illiterate	29	60.4	65	61.9	94	61.4
Literate	19	39.60	40	38.1	59	38.6
<b>Ethnicity</b>						
Oromo	14	29.2	14	13.3	28	18.3
Amhara	13	27.1	50	47.6	63	47.2
Other*	21	43.7	41	39.1	62	40.5
<b>Religion</b>						
Orthodox	30	62.5	78	74.3	108	70.6
Muslim	12	25.0	18	17.1	30	19.6
Other**	6	12.5	9	8.6	15	9.8
<b>Marital status</b>						
Married	44	91.7	94	89.5	138	90.2
Never married	4	8.3	11	10.5	15	9.8
<b>Occupational status</b>						
Employed	9	18.8	19	18.1	28	18.3
Unemployed	39	81.2	86	81.9	125	81.7
<b>Income (in ETB)</b>						
Below 500	8	16.7	26	24.8	34	22.2
500-1500	25	52.1	54	51.4	79	51.6
Above 1500	15	31.2	25	23.8	40	26.2

\* Tigray and Guragei \*\* Protestant and Catholic  
ETB: Ethiopian Birr; PAC: Post Abortion Care

**Table 1:** Socio-demographic characteristics of reproductive age women in selected governmental health institutions of Addis Ababa, Ethiopia, 2012 (n=153).

	PAC utilized		Not utilized	
	n=48	%	n=105	%
<b>No of pregnancy</b>				
One	46	95.8	98	93.3
Two and above	2	4.2	7	6.7
<b>Type of abortion</b>				
Induced	21	43.8	83	79.1
Spontaneous	27	56.2	22	20.9
<b>Number of abortion</b>				
One	46	95.8	99	94.3
Two and above	2	4.2	6	5.7
<b>Gestational age</b>				
12month	44	91.7	102	97.1
12month	4	8.3	3	2.9

PAC: Post Abortion Care

**Table 2:** Obstetric characteristics of reproductive age women in selected governmental health institutions in Addis Ababa, Ethiopia, 2012.

than who had induced type of abortion (COR=4.85 [95% CI=2.32, 10.16]).

As clearly showed on the multivariate logistic regression, two characteristics were independently and significantly associated with post abortion care services; knowledge of women towards elements of PAC (AOR=4.30 [95% CI=1.32, 13.99]), and type of abortion (AOR=2.22 [95% CI=1.12, 18.72]). However, factors related to respondents' characteristics such as educational status, occupation, monthly income were not significantly associated with utilization of post abortion care service in this study (Table 3).

## Discussion

This study assessed factors which influence utilization of post abortion care service among reproductive age group women in selected governmental health institutions in Addis Ababa, Ethiopia. The utilization of post abortion care service in this study was 31.4%. It was better than the study conducted in south west Ethiopia indicated that 25.2% of the participant utilized post abortion care in public facility [14]. The possible reason for the difference may be due to the time gap and accesses of information about the care in the study area.

In our study, type of abortion is associated with women's utilization of PAC; participants who had spontaneous type of abortion were utilize 2 times than who had induced type of abortion (AOR=2.22 [95% CI=1.12, 18.72]). This finding is similar with studies conducted in Philippines; women seeking care at health institutions for induced abortions are often viewed as criminals and verbally admonished [15]. This result could be explained that since abortion in Ethiopia is liberalized or partially restricted it results shame and fear of women which prevent them from seeking care in health institutions.

In this study, women who had knowledge about elements of PAC were utilized post abortion services 4 times when compared to who didn't utilize (AOR=4.30 [95% CI=1.32, 13.99]). This finding is similar with a study conducted in Addis Ababa and North West Ethiopia [5,16]. In this study, attitude of women towards PAC was not associated with utilization of post abortion care services.

The study had some limitations; all information provided about post abortion care services were from respondents reports which may have resulted in recall bias, respondents might not remember elements of PAC that they received. This study was cross-sectional and could not establish the process and circumstances leading to utilization of PAC, we recommend more studies be conducted to answer these questions.

Variables	PAC utilized		Not utilized		COR (95% CI)	AOR (95% CI)
	N=48	%	N=105	%		
<b>Type of abortion</b>						
Spontaneous	27	56.2	22	20.9	4.85 (2.32,10.16)	2.22 (1.12,18.72)
Induced	21	43.8	83	79.1	1	1
<b>Knowledge about elements of PAC</b>						
Yes	41	85.5	44	41.9	6.67 (2.84,15.61)	4.30 (1.32,13.99)
No	7	14.5	61	58.1	1	1
<b>Attitude towards PAC service</b>						
Good	37	77.1	19	18.1	15.22 (6.59, 35.14)	3.12 (0.16,12.32)
Bad	11	22.9	86	81.9	1	1

PAC: Post Abortion Care; COR: Crude Odds Ratio; AOR: Adjusted Odds Ratio; CI: Confidence Interval

**Table 3:** Bivariate and multivariate analysis of factors associated with post abortion care utilization among reproductive age women in governmental health institutions of Addis Ababa, Ethiopia, 2012.

Lack of health care providers' perspectives was also another limitation. Given this, further research involving qualitative methods could overcome this limitation.

## Conclusion

This study revealed that utilization of post abortion care service was better (31.4%) as compared to other similar settings. Knowledge of women towards elements of PAC and type of abortion were significantly and independently associated with utilization of PAC services.

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