Addis Ababa University
College of Health Sciences
School of Public Health

Assessment of Practice of Post abortion Care Service among Government Health Centers in Addis Ababa

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A Thesis Submitted to the School of Graduate Studies of Addis Ababa University in Partial Fulfillment of the Requirements for the Degree of Master in Public Health.

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LIST OF ACRONYMS

AARHB	Addis Ababa Regional Health Bureau
AAU	Addis Ababa University
AIDS	Acquired Immune Deficiency Syndrome
EVA	Electrical Vacuum Aspiration
CI	Confidence Interval
COC	Combined Oral Contraceptives
D&C	Dilatation and Curettage
EPI	Expanded Program on Immunization
FMOH	Federal Ministry of Health
FP	Family Planning
HC	Health Centers
HF	Health Facility
HIV	Human Immune Deficiency Virus
ICPD	International Conference on Population and Development
IRB	Institutional Review Board
MVA	Manual Vacuum Aspiration
NGOs	Non- Governmental Organizations
PAC	Post Abortion Care
PAFP	Post Abortion Family Planning
RH	Reproductive Health
SND	Standard Normal Distribution
SPSS	Statistical Package for Social Science
SRH	Sexual and Reproductive Health
STDs	Sexually Transmitted Diseases
STIs	Sexually Transmitted Infections
WHO	World Health Organization

ABSTRACT

Background: unsafe abortion is a major public health problem in many countries. A woman die every eight minutes somewhere in developing countries due to complications arising from unsafe abortion. A complication of unsafe abortion contributes to 13% of global maternal mortality. In Sub-Saharan Africa, abortion complications represent 20 to 50% of maternal morbidity and mortality. Unsafe abortion is the most common cause of maternal mortality, accounting for up to 32% of maternal deaths in Ethiopia

Objective: The study was conducted to assess practice of post abortion Care Service among government health centers in Addis Ababa.

Method: A facility based cross-sectional study was conducted in Addis Ababa from January to February 2011. A pre-tested structured questionnaire and assessment of supply & equipments were employed. A single proportion formula was used to calculate the sample size. Data were entered and analyzed by SPSS version..

Result: A total of three hundred fifty eight health professionals working on post abortion care in 24 government health centers were participated in the study Of 358 health professionals working on PAC Service 56% were between the age group of 20—30 years. Study subjects were nurses 80% followed by nurse midwives17%. Among all study subjects only 38% took refresher training. In the last three months, 27% of the respondents provided FP for post abortion patients. Sixty eight percent of the study subjects responded the appropriate place for post abortion FP service was at FP room and only 4% preferred in the delivery room. 79% of the study participants responded that patients express a desire for FP after PAC service. It was found out that among the 24 government health centers in Addis Ababa, 46% and 39% lacked IEC materials and MVA double valve syringes respectively. Those health professionals who took refresher training were more likely to practice post abortion family planning service.

Conclusion and Recommendation; The majority of health providers did not take refresher training on post abortion care. Some health centers lack basic equipments required for providing post abortion care service. In general the importance of practice of Post Abortion Care Service could be improved in accordance with the national health policy and involvement of NGO**s.**

Therefore, an increased Post Abortion Care Service training program, with an emphasis on post abortion FP service, is recommended for health professionals to improve the overall Post Abortion Care service delivery

1.INTRODUCTION

1.1 Background: Unsafe abortion is a major public health problem in many countries. It is one of the most easily preventable cause of maternal death and ill-health which causes about 13% of global maternal mortality (1).Each year from an estimated 45 million induced abortions, there are an estimated 19 million unsafe abortions worldwide, most in low income countries. In developed regions, nearly all abortions (92%) are safe, whereas in developing countries, more than half (55%) are unsafe which ranges from 60% in Asia (excluding eastern Asia) to more than 95% in Africa and Latin America. About 52 million of women with unsafe abortion are hospitalized for serious complications worldwide, while an unknown but possibly equal number of women suffer similarly with serious complications but cannot obtain treatment. The interventions to prevent unsafe abortion and its complications include providing safe abortion service, emergency treatment of incomplete abortion, expanding access to modern contraceptive services and tackling the legal and programmatic barriers to safe abortion service(2). In Ethiopia, there has been a great effort by government local and international organizations to reduce maternal mortality. Nevertheless, Ethiopia has one of the highest maternal mortality ratios in the world, with maternal mortality ratio of 673 deaths per 100000 live births (3). Providing Post abortion care (PAC) service is a widely accepted public health strategy to reduce maternal mortality and morbidity from unsafe abortion. Post abortion care is one of the few contacts that women visit health facilities and thus becomes an opportunity for receiving family planning (FP) and other reproductive health (RH) services (4)

1.2 Statement of the problem: Each year more than 500,000 women, 99% of them in developing countries, die from pregnancy and childbirth- related complications.The health consequences related to complications of unsafe induced abortion are devastating for women and their families. Beside long-term disability, death may be a direct result of unsafe abortion complications. The major causes of maternal deaths are hemorrhage, infection, obstructed labor, hypertensive disorders in pregnancy, and complications of unsafe abortion. Complications due to unsafe abortion procedures account for an estimated 13% (68,000) of maternal deaths worldwide per year. Almost all abortion-related deaths occur in developing countries of Africa (30,000) Asia (34,000) Latin America & the Caribbean (4000) (5).

In the developed regions, nearly all abortions (92%) are safe, whereas in the developing countries, more than half (55%) are unsafe. More than 95% of abortions in Africa and Latin America are performed under unsafe circumstances, as are about 60 % of abortions in Asia (excluding Eastern Asia) .Ethiopia is one of the countries with the highest maternal mortality ratio, which is estimated to be 673 deaths per 100, 000 live births. Unsafe abortion is a very serious public health problem in Ethiopia. With low contraceptive prevalence rate (15 percent) and high total fertility rate (5.4 births per woman). Abortion is the third leading cause of hospital admissions and unsafe abortion is the most common cause of maternal mortality, accounting for up to 32% of maternal deaths in the country (3).

1.3 Rationale of the study: Complications from spontaneous abortions and unsafely induced abortions pose a serious global threat to women's health and lives. An estimated 46 million induced abortions are performed annually; about 20 million are unsafe, and 95% of these take place in the developing world. Unsafe abortion accounts for an estimated 13% of pregnancy- related deaths—representing approximately 67,000 women—every year. In many other cases, unsafe abortion causes such long-term consequences as chronic pain, pelvic inflammatory disease, tubal occlusion and secondary infertility (7).

In areas with a high rate of maternal mortality and morbidity from unsafe abortion, women's access to PAC becomes particularly crucial (8). PAC service plays a vital role in reducing maternal morbidity and mortality resulting from unsafe abortion. There were few studies conducted in this regard in Addis Ababa at Hospital level and little is known at health center level. Therefore, this study tried to fill these gaps and provide important information for program managers**.**

2. LITERATURE REVIEW

2.1 Magnitude of the problem; Post abortion Care is a comprehensive service which is provided for women presenting with incomplete abortion and its complication. Post abortion care service is important because it saves women's lives, protects women's health and reduces the need for costly emergency services for abortion complications. Reducing high rates of maternal mortality in developing countries has been a major global effort for over 20 years. The adoption of MDG which includes a reduction in maternal mortality by 75% by the year 2015, has especially underscored the need for political commitment and effective interventions to prevent such deaths. In developing countries, the risk of death following complications of unsafe abortion procedures is several hundred times higher than that of an abortion performed professionally under safe conditions (1). According to WHO every year at least 36,000 African women and girls die from unsafe abortion, accounting for 14% of all maternal deaths in the region and 650 deaths occur per 100,000 unsafe abortion procedures in Africa, compared with only 10 in developed regions in 2003 (10). In Sub-Saharan Africa, abortion complications represent 20 to 50% of maternal morbidity and mortality. It is estimated that there are 3.27 million pregnancies in Ethiopia every year, of which approximately 500,000 end in either spontaneous or unsafely induced abortion. Unsafe abortion is the most common cause of maternal mortality and it is one of the top 10 causes of hospital admission in the country (6).

2.2 Health facility and health providers related variables

By training mid-level providers to provide first-trimester aspiration abortions and manage medical abortions, countries will be able to increase the number of health service sites offering first-trimester abortions at primary-care level, thereby improving and increasing women's access to abortion services without compromising safety or quality of care (11).

In India, both a nationwide study and a study in Rajasthan found that providers such as auxiliary nurse-midwives were providing abortions to low-income women, mostly without the benefit of training, often leading to complications (12).

The authors of the Rajasthan study recommended that, given the prevalence of such providers, the feasibility of training some of them to offer safe abortion services, particularly for terminations in early pregnancy, should be explored at policy, program and research levels (13).

Similar recommendations were made in a study in Ethiopia, before abortion was legalized there, which also found high complication rates as a result of a lack of training. It recognized that making abortion safe would only be possible if mid-level providers were trained, as physicians were lacking, particularly in low socioeconomic and rural areas (14).

Study done in north Nigeria reported that from the facilities providing abortion services, 90% offer services related to pregnancy and 64% offer HIV testing and counselling, 48% of facilities provide treatment for STIs and 6% offer pregnancy tests to their clients .The finding of this study also indicated that most of the providers (79%) who were interviewed stated that they had only received training and information on PAC during their initial pre-service training. 21% of the providers interviewed stated that they had received clinical training in MVA technique (15).

A need assessment in Haiphong hospital in Vietnam found that the facility was poorly equipped, lacked space, lacked privacy and health staff did not provide women with post abortion contraception counselling or information on infection prevention .Another study done in

Vietnam to assess the quality of safe abortion care, 92% of the women said that they were treated respectfully by health staff, but clients expressed their hesitation and recession about privacy and dignity (16). The study done in India showed that most of the abortion care providers were trained and women ranked the facilities as high or intermediate in quality, but about 30% of the women experienced moderate to serious post-abortion complications (17).

A study done on quality of post abortion care in public health facilities of Ethiopia showed great majority of the clients (79.6%) responded that they were satisfied with services they have obtained (18).

2.3 Post abortion family planning variables

In the study done in Vietnam, 84% of women were intended to use contraception, but 42% were actually using a method and even there was a discrepancy between the method they intended to use and actually using (16)

Study done in north Nigeria reported that most of the studied health facilities offer a limited range of contraceptive methods or counselling. 55% of hospitals and 33 % of primary healthcare centres that provide uterine evacuation offer family-planning services specifically to post abortion patients (19).

study carried out in Kano, Nigeria showed that most of the patients interviewed (81%) said they did not want to get pregnant again over the next few months and in 13% of the observed cases, the provider did not explain that the patient had an immediate risk of repeat pregnancy if she did not use a contraceptive method (20).

The assessment of the role of private sectors in Ethiopia in expanding post abortion care services revealed that less than 21% of the patients in Amhara and about 11% of those in Oromia received family planning methods before leaving the health facility (14)

One study in Addis Ababa revealed that almost 70% of the respondents were at least pregnant once before the current pregnancy and 29.0% of the respondents gave history of previous abortion. Ever use of contraceptives was 53.4 % and 38.9% respondents reported that the current pregnancy, which ended in abortion, was unwanted and over three quarter of the cases reported that the current pregnancy terminated spontaneously, while the rest admitted interference with pregnancy. Moreover, it also pointed out major reasons given for resorting to abortion by the 69 cases who admitted interference were economic 34%, not being married 25.8% and to complete education in 22.7% (21).

A survey focusing on post abortion care conducted in Addis Ababa had shown that family planning and counselling services were provided for only 20% and 3% .respectively (22).

2.4 Post abortion care service frame work

Dimensions of quality include: technical competence (skills, capability, and actual performance of health providers, managers, support staff and material resources), access to service (not restricted by geographic, economic, social, cultural, or linguistic barriers), effectiveness (whether the desired results are achieved or not), interpersonal relations (interaction between providers, the health team and the community), efficiency (provide greatest benefit within the resources available), continuity (service provision on an ongoing basis), safety (minimizing dangers related to service delivery) and amenities (physical appearance and comfort .

IPAS, a non-for profit organization working to improve PAC worldwide, has introduced a framework of PAC. The framework was designed to help identify areas in which services are stronger or weaker and also assess improvements made over time (23).

2.4.1Post abortion family planning

Family planning is one of the key elements of post abortion care Health facilities providing abortion or post abortion care should offer direct provision of information, counseling and contraceptive methods or referral to other reproductive health services.

Study done in Jima University Hospital showed that from 41 patients admitted for abortion complications, only 19.5% were counseled for family planning. A study done after 3 years in the same hospital showed only 29.4% left the hospital with counseling or methods (24).

2.4.2 Technical competence

Technical Competence is the proficiency with which all member of the health care team perform the tasks involved in abortion care, with adequate trained staff and appropriate supervision, following standard protocol and referral when in need (25). Safe abortion, especially in developing nations carries risk that depends on the skill (qualification and tolerance) of the provider. Unskilled provider could improperly perform dilatation and curettage (D&C) in unhygienic setting, causing uterine perforation and infection (26).

The study done in India showed that most of the abortion care providers were trained and women ranked the health facilities as high or intermediate in quality, but about 30% of the women experienced moderate to serious post-abortion complication (12)

A study done in Ethiopia to assess post-abortion care service showed that only two of the providers wore goggles during procedure and 26 (74.3%) of providers assisted clients to the recovery room([27). Another study done in Addis Ababa revealed that 18 (42.9%), 10 (23.8%) and 15 (35.7%) of service providers had training on STIs counseling, HIV/AIDS Counseling and MVA/EVA, respectively during their basic training (Ibid).

2.5 Availability of equipment and supplies

Essential equipment and supplies should be present at every level in sufficient quantities. There should be established management system. In addition to the above mentioned points considering costs, linkage of service to other reproductive health services and referral systems make the service more accessible.

Abortion services should be provided in the context of comprehensive reproductive health care for women with direct provision of family planning services and screening for sexually transmitted diseases (STDs), and referral for other types of care such as treatment for STDs and infertility (28).

Quality of care is not a luxury that only the resource rich industrialized nations can afford .Even where limited resources constrains program managers have opportunities to make choice that can advance their programs toward greater attainment of quality of care objective .The focus of attention on health service in developing world has generally been directed toward improving coverage rather than quality of service. Lately, however, awareness of this problem has increased and experts have pointed out the need to less developing countries gain from the progress made in the field of quality assurance .Post abortion family planning methods, functional status of essential PAC service equipments and supplies and competency of available human resources are important components of practice of PAC and hence are expected to improve through better compliance of the service.

OBJECTIVE

3.1 General Objective

- To assess post abortion care services in government health centers of Addis Ababa.

3.2 Specific objectives

- To assess availability of trained post abortion care service providers in government health centers of Addis Ababa.

  .
- To assess post abortion family planning service practices in government health centers .of Addis Ababa
- To describe availability and functionality of equipment and supplies for post abortion care service.

4. METHODS

4.1 Study area and period

Addis Ababa is the capital city of Federal Democratic Republic of Ethiopia. Based on health and health related indicators of Federal Ministry of Health 2008/2009, Addis Ababa has a projected population of 2,917,405 of these 1,387,257 (47.6%)were males while 1,527, 148(52.4%)were females. The reproductive age group (15-49 years) women constitute 34.6%. According to AARHB annual report FP coverage in 2009/2010 was 49% and PAC service provided for 2754 Patients. The city has an area of 540 km^2 and administratively subdivided in to 10 sub-cities and 117 Woredas. At the time of the study there were 5 hospitals and 26 health centers owned by Addis Ababa City government health Bureau .Two of the health centers were established recently. The study involved all government health centers in Addis Ababa (24 health centers) which provide post abortion care services. The study was conducted from 24 January to 04 February 2011.

4.2 Study design

A facility based cross sectional study was conducted to assess the practice of post abortion care service among government health centers in Addis Ababa.

4.3 Source population and Study population

Source population

All health professional working in 24 government health centers of Addis Ababa city government.

Study population

Health professionals working on post abortion care at the time of the study selected from the source population were taken as study population.

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Exclusion criteria

Health professionals working in recently established government health centers because the health centers do not start post abortion care service.

4.4 Sample size and Sampling procedures

The required sample size was determined by using single population proportion formula i.e

$$n = \frac{z^2 * p(1-p)}{d^2}$$

Where: n= desired sample size

Zα/2 = the value of Z in SND that corresponds to α level of 0.05

P = Family Planning of PAC study done in Oromia, Jimma University Hospital, Ethiopia = 19.5% (24)

q = 1-p = 81 %

d = degree of precision = 4%

$$n = \frac{(1.96)^2 * 0.19*0.81}{(0.042)^2}$$

n = 336

Hence, the calculated sample size was 336 adding a 10 % non-response rate gives a total sample size of 358..

4.5 Measurements /variables in the study

Dependent variable

- PA FP service provided by study participants

Independent variables

Socio demographic variables

- Age
- Sex
- Marital status
- Religion

❖ **Service provider related variables**

- Year of service
- Qualification
- Refresher training taken

❖ **Family planning related variables**

- Patient express a desire for contraception
- Best place to provide post abortion family planning
- Pt. offered alternative FP methods
- Reason for not accepting alternative methods
- Verbal or written instruction given

❖ **Availability of equipment and supplies**

4.6 Pre test

Five percent of the questionnaire was pre-tested which was not included in the final sample in Gandhi Memorial Hospital on 19 health professionals working on PAC to ensure that the questionnaire was clear for the respondents and appropriate modifications were made after discussing with the supervisors and data collectors such as skipping patterns two days before starting the actual data collection process.

4.7 Data collection procedures

Data was collected using structured questionnaire developed in English. The questionnaire was pre-tested on 19 health professionals working on PAC in Gandhi Memorial Hospital.

Data was collected from 24 January to 04 February 2011 by 5 nurses data collectors and 3 BSC nurse supervisors who were recruited based on previous data collection experience and trained for two days on the purpose and scope of the study, how to conduct the interview and the over all procedure of data collection instrument and supervision. Observation check list was used to collect information on availability/functionality of post abortion care service equipments and supplies.

4.8 Data quality management

The quality of data was assured by using properly designed and pretested questionnaire and providing proper training to the data collectors and supervisors. The training was provided for data collectors and supervisors about the objective and process of data collection, two days before the pre-test Daily supervision was made by supervisors and principal investigator for completeness, accuracy, and clarity carefully. When there were problems during supervision, it was discussed immediately with data collectors and supervisors. Data was entered by principal investigator and according to the pre-coded response; entered data was checked for completeness and cleared when there was any mistake. The questionnaire was developed after review of relevant literatures. A number of questions that could address the objective of the study were gathered and adapted. The first draft of English questionnaire was produced and valuable comments were received from different sources to improve the quality of instrument. The English questionnaire was not translated to Amharic because the study participants were health professionals and there was no problem for data collectors to communicate with the study participants

4.9 Data analysis procedure

Data were first checked and arranged manually by the principal investigator to increase the quality of the data and completeness of the data was checked .The collected data was compiled and entered in to SPSS version 16 computer software for further processing. Frequencies and percentages were used to describe the study population in relation to socio-demographic and other relevant variables. The degree of association between dependent and independent variables were assessed using chi-square and odds ratio with 95% confidence interval.

4.10 Operational Definitions

"Adequate "refers to enough for what is required or needed.

"Skilled PAC service providers'' refers to health professional who had ability to provide post abortion care service.

"Technical competence'' refers to training of providers in relevant aspects of care and adequate supervision

"Essential supplies" refers to supplies like FP method mix, gloves, gaugles , MVA and IEC materials.

4.11 Ethical considerations

Ethical clearance was initially obtained from Institutional Review Board (IRB) medial faculty, Addis Ababa University. Written consent was secured from Addis Ababa regional Health Bureau. All the study participants were informed about the purpose of the study, their right to refuse, and assured confidentiality. Confidentiality and anonymity of the respondents was kept and information pertaining persons was not shared with a third person. Individual identifiers like names and other personal information was not included in the questionnaires.

4.12 Dissemination of results

The result of this study will be defended at School of public health Addis Ababa University as Partial Fulfillment of the Requirements for the Degree of Masters of Public Health. The finding of the study is disseminated to AAU College of Health sciences, School of Public Health, Addis Ababa Regional Health Bureau, Sub cities health offices and health centers working on post abortion care service. Further attempt will be made to publish it on scientific journal

5. RESULTS

5.1 Socio demographic characteristics of the study population

A total of 358 health professionals were identified making the response rate 100%. Majority of the respondents 201 (56.1 %) were between the age group of 20-30 years and young, while the remaining 102 (28.5 %) and 55(15.4%) were between the age group of 31-41 and 42-55 years respectively. The study subjects were aged 20 to 55 participated in the study. The mean age of the study population was found to be 32.1 years with SD (± 8.1). Ninety seven (27.1%) of the study participants were males and 261 (72.9 %) were females. Concerning marital status 193(53.9%) was married followed by single 156(43.6%). The distribution of study subjects by religion 257(71.8%), 26(7.3%), 64(17.9%) and 11(3.0%) were orthodox, Muslim, protestant and others respectively.

Table 1: **Distribution of health professionals working on PAC by socio-demographic Characteristics, Addis Ababa, February 2011**

Characteristics	Number	Percent
Age (years)	**n=358**	
20-30	201	56.1
31-41	102	28.5
42-55	55	15.4
Mean± SD	32.1±8.3	
Sex		
Male	97	27.1
Female	261	72.9
Marital status		
Married	193	53.9
Single	156	43.6
Divorced/Separated	9	2.5
Religion		
Orthodox	257	71.8
Muslim	26	7.3
Protestant	64	17.9
Others	11	3.0

5.2 Variables related to health providers skill

Two hundred twenty (62%) of health professionals working on PAC didn't took any refresher training while only 138 (38%) took refresher training. Attending refresher training was found significantly associated. Study subjects working on PAC by professional qualification were Nurses 286 (79.9%) followed by Nurse Midwives 60 (16.8%) and small proportion of General Practitioner 12 (3.4%). Ninety-five (26.5%) health professionals responded that they provide service for less than 6 months and 263(73.5%) were provide service for more than six months (Table 2).

Table 2: Distributions of health professionals in government HCs responded to variables related to training, Addis Ababa, 2011.

Variable	Number N=358	Percent
Refresher Training taken		
Yes	138	38.0
No	220	62.0
Qualification		
General Practitioner	12	3.4
Nurse	286	79.9
Nurse Midwifes	60	16.8
Year of service in the unit		
< 6 months	95	26.5
≥6 months	263	73.5

5.3 post abortion FP service

Two hundred forty-four (68%) health professionals responded appropriate place for contraceptive counseling is at FP room while 81 (28%) in the procedure room and 15 (4%) in the delivery room. 97(27%) respondents provide FP for post abortion pts while 261(73%) did not provide. Two hundred eight three (79.1%) study participants said after PAC services patients express a desire for contraceptive while 75 (20.9%) did not express their desire for contraceptive. Three hundred one (84.1%) of the health professionals responded that patients offered an alternative contraceptive methods and 57 (15.9%) did not offered an alternative contraceptive methods. It was also found that reason for not accepting an alternative contraceptive methods was; 77 (21.5%) patient did not like it, 37 (10.3%) alternative methods was not available, 100 (27.9%) Medical contraindications 141 (39.4%) and 3 (0.8%) didn't know the reason. Also 339 (94.7%) study participants responded that patients got Verbal or written instruction while 19 (5.3%) did not get Verbal or written instruction for PAFP service. (Table 3).

Table 3 Percentage distributions of health professionals working on PAC, FP related variables, Addis Ababa, February 2011

Characteristics	Number (n=358)	Percent
PAFP provided		
Yes	97	27.0
No	261	73.0
Best Place for FP Counseling		
At FP room	244	68.0
In the procedure room	99	28.0
Delivery room	15	4.0
Patient express a desire for FP		
Yes	283	79.1
No	75	20.9
Patient offered alternative FP methods		
Yes	301	84.1
No	57	15.9
Reason for not accepting alternative methods		
Patient did not like it	77	22.0
Alternative methods not available	37	10.0
Medical contraindication	100	28.0
All	144	40.0
Verbal or written instruction given		
Yes	339	94.7
No	19	5.3

It was found that 164(46%), 56(16%) ,51(14%) ,48(13%) 39(11) of the study subjects replied the desired post abortion contraceptives given were injectable, combined oral contraceptive, implant ,male condom and IUD respectively.

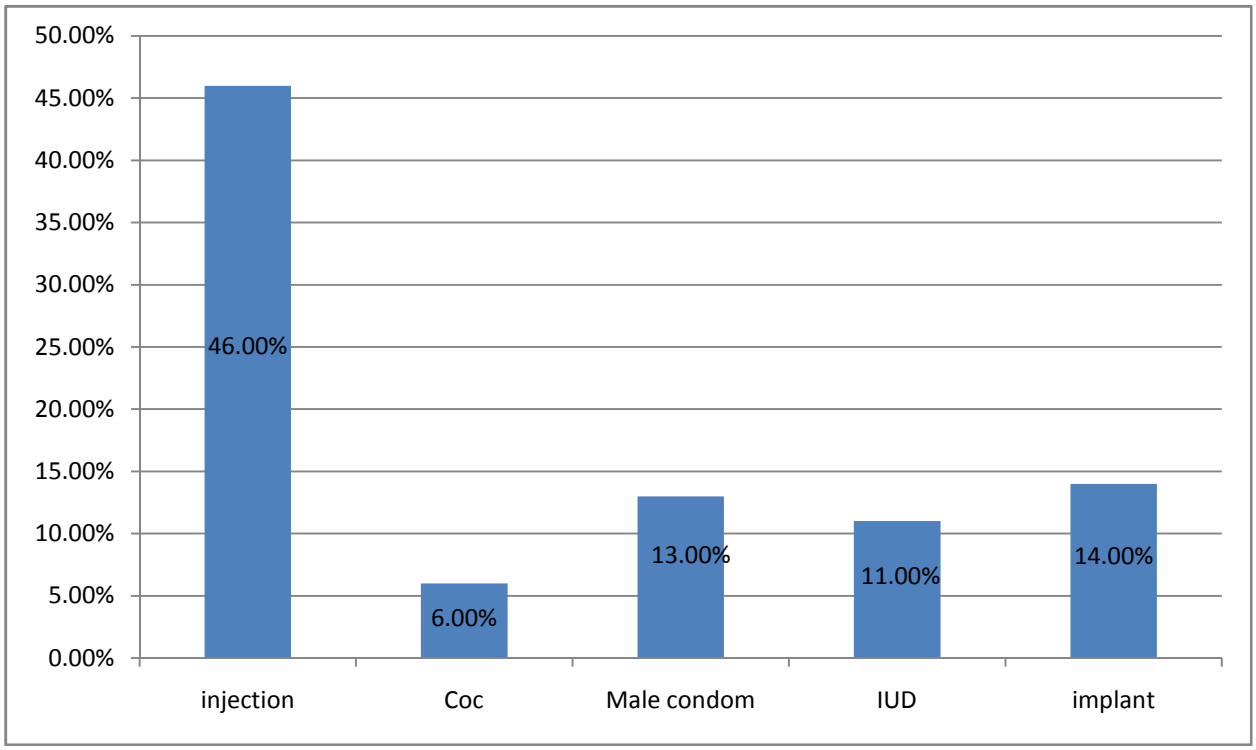

Fig. 1 contraceptive methods given by respondents in 24 government HCs, Addis Ababa, 2011.

5.4 Availability of Equipment and supplies

It was found that 15(62.5%), 17 (70.8%), 16(66.7%), 15(62.5%) and 13(54.2%) in 24 government health centers in Addis Ababa had adequate Bed, cleaning glove, BP gauge, MVA double valve syringe and IEC materials respectively. It was also found that from 24 government HCs in Addis Ababa; 9 (37.5%) lack bed, 7 (29.2%) lack cleaning glove, 8 (33.3%) lack BP gauge, 9 (39.5%) lack MVA double valve syringe and 11 (45.8%) lack IEC materials (Table 4).

Table 4: Distribution of equipments and Supplies in government health centers working on PAC in Addis Ababa, February 2011.

Equipments	Adequate		Inadequate	
	Number	Percent	Number	Percent
	N=24			
Bed	15	62.5	9	37.5
Cleaning glove	17	70.8	7	29.2
BP gauge	16	66.7	8	33.3
MVA double valve syringe	15	62.5	9	39.5
IEC materials	13	54.2	11	45.8

In the binary logistic regression three variables were significantly associated with practice of post abortion family planning service i.e. refresher training taken, patient desire for post abortion Family planning and duration after completed basic training. On multivariate binary logistic regression only refresher training taken and patient express a desire for family planning after PAC were the main predictors of post abortion family planning service. Those who took refresher training were more likely to practice post abortion family planning service.

Those study participants who respond that patient express a desire for family planning were more likely to practice post abortion family planning.(Table 5)

Table 5: Variables associated with PA-FP service provided, Addis Ababa, February 2011

Variable	PA-FP-service provided		COR (95% CI)	AOR (95% CI)
	Yes	No		
Refresher training taken				
Yes	61	77	3.92 (2.41-6.38)*	3.74 (2.25-6.20)*
No	37	183	1.00	1.00
Patient express a desire for FP				
Yes	93	190	6.85(2.68-17.55)*	6.38(2.42-16.86)*
No	5	70	1.00	1.00
Duration after completed basic training				
< 6 months	23	34	2.04(1.13-3.68)*	1.70(0.88-3.30)
≥6 months	75	226	1.00	1.00

6. DISCUSSION

Apart from the revised abortion law, there is a need to work on the capacity building of health professionals to increase post abortion care service. This study is expected to be an important step to assess & provide an insight about post abortion care services for government health centers in Addis Ababa.

This study showed that 62% of health professionals did not take refresher training while 38% took refresher training which is far lower than study done in Nigeria. (22).
Study done in North Nigeria indicated that most of the providers (79%) who were interviewed stated that they had only received training and information on post abortion care during their initial pre-service training. Also a study done in Nigeria on health professionals who reported practicing post abortion counseling which showed that 40.1% had received formal training (30).

The study also showed that 27% of the respondents provide post abortion family planning service which is lower than a study done in Addis Ababa on private health institutes revealed that 89% of PAC clients were left with FP methods (33). This is similar to a study done in Jima University Hospital showed that from patients admitted for abortion complications, 29% left the hospital with family planning counseling or methods (19).

Another study done at a national post abortion care service survey in Peru showed that 34% of post abortion care patients received family planning method prior to leaving the health facility which was greater than this study (29).

Although a survey focusing on quality of post abortion care, which was conducted in Addis Ababa, showed that family planning service was provided for only 20% which was lower than this study (22).

This study identified health centers in Addis Ababa city government lack 45.8%, 39.5%, 37.5% and 33.3% IEC materials, MVA double valve syringe, bed and BP gauge respectively which is very important in post abortion care services Taken equipments and supplies into consideration, 9 (37.5%) lack bed, 7 (29.2%) lack cleaning glove, 8 (33.3%) lack BP gauge, 9 (39.5%) lack MVA double valve syringe and 11 (45.8%) lack IEC materials.

This study showed that most of government health center in Addis Ababa need to fulfill the required supplies for post abortion care services. Essential equipment and supplies should be present at every level in sufficient quantities. In addition to the above mentioned points considering costs, linkage of service to other reproductive health services and referral systems make the service more accessible (22).

7. STRENGTH and LIMITATIONS OF THE STUDY

Strength

- The study tried to take information from all health professionals working on post abortion care service in the health centers.
- To obtain reliable data and ensured experienced health professionals were employed.

Limitation

- Since the study was service providers based it underestimate the results related to patient satisfaction,
- The study is not supplemented by qualitative method.
- The study assessed only health providers not users.
- The study also shares the commonest limitation of all cross-sectional surveys in that it can not address the temporal relationship between the exposures and the outcome.

8. CONCLUSION and Recommendation

8.1 Conclusion

This study was conducted with the objectives of assessing the practice of post abortion care services in government health centers of Addis Ababa.

62% health professionals were not attained refresher training on post abortion care and only 27% of the respondents provide post abortion family planning service

Some health centers lack basic equipments required for providing post abortion care service.

Providing post abortion care requires attention to several aspects of services such as proper provider training, post abortion family planning service and availability of equipments, supplies and IEC materials.

8.2 Recommendation

An increased PAC training activity program, with an emphasis on post abortion family planning service and counseling is recommended for health professionals to improve the overall practice of PAC service delivery. Training should involve both the communication and counseling skills of service providers. Appropriate equipment, supplies and IEC materials should be designed and made available to the health centers.

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Annexes

Equipments	Adequate		Inadequate	
	Number	Percent	Number	Percent
Examination table	21	87.5	3	12.5
Bed	15	62.5	9	37.5
Stretcher	18	75.0	6	25.0
Chair or bench	22	91.7	2	8.3
Toilet for patient	20	83.3	4	16.7
Sink	20	83.3	4	16.7
Running water	19	79.2	5	20.8
Adequate room	19	79.2	5	20.8
Electricity	19	79.2	5	20.8
Clean linen	19	79.2	5	20.8
Examination glove	22	91.7	2	8.3
Locked storage area	18	75.0	6	25.0
Cleaning glove	17	70.8	7	29.2
Reusable masks	18	75.0	6	25.0
Eye protection/ goggle/	22	91.7	2	8.3
Surgical gowns	22	91.7	2	8.3
Adjustable lighting	22	91.7	2	8.3
Instrument table	21	87.5	3	12.5
Sterilizer	19	79.2	5	20.8
Container for instrument	19	79.2	5	20.8
Stethoscope	20	83.3	4	16.7
BP gauge	16	66.7	8	33.3
Thermometer	21	87.5	3	12.5
Vaginal speculum	24	100.0	0	-
Sponge forceps	22	91.7	2	8.3
Sponge forceps	22	91.7	2	8.3
Sharp disposable container	22	91.7	2	8.3
Container for disposing trash	19	79.2	5	20.8
Flash light	21	87.5	3	12.5
MVA single valve syringe	20	83.3	4	16.7
MVA double valve syringe	15	62.5	9	39.5
Valve set replacement	18	75.0	6	25.0
MVA canula 4-12mm	21	87.5	3	12.5
IEC materials	13	54.2	11	45.8

Equipments and Supplies in 24 public health centers

Questionnaire

A questionnaire prepared to assess the Quality of Post abortion Care Service among health professionals working in Public Health Centers in Addis Ababa.

Part I socio-economic and demographic factors

No	Question and filter	Alternative choices for responses	Skip to
101	How old are you?	Age in complete year_____	
102	Sex	1. Male ____ 2. Female_____	
103	What is your current marital status?	1. Married _____ 2. Single_____ 3 Widowed _____ 4. Divorced/separated_____	
104	What is your religion?	1. Orthodox _____ 2. Muslim _____ 3. Protestant _____ 4. Catholic _____ 5. Others_____	
105	What is your qualification?	1. General Physician _____ 2. Nurse _____ 3. Nurse Midwife_____	
106	Do you have any responsibility other than service provision?	1. Yes _____ 2. No _____	If No skip to Q108
107	If yes to Q 106 what is your responsibility?	1. Medical director_____ 2. Case team leader _____ 3. Coordinator_____ 4. Other (please specify)_____	
108	How many years ago did you complete your basic training?	1. < 6 months_____ 2. 6 to 12 months _____ 3. 1 to 5 years _____ 4. >5 years	
109	Have you attended any refresher or post-basic training course specifically on post abortion care, family planning & other reproductive health matters?	1. Yes_____ 2. No_____	
110	How long have you been working here at this unit?	1. < 6 months _____ 2. 6 to 12 Months_____ 3. 1 to 5 years_____	

No	Question and filter	Alternative choices for responses	Skip to
111	Did your basic training cover (Circle all that applies)?	1. ANC Delivery service/ postnatal care / _____ 2. Post abortion care_____ 3. Family planning _____ 4. 1 & 2 _____ 5. 1 & 3 _____ 6 2& 3 ---------- 7 All ----------	
112	Did you take refresher training that include? (Circle all that apply)	1. ANC Delivery service/ PNC---------- 2. . Post abortion care ___- 3. Family planning _____ 4 1 & 2 _____ 5. 2 & 3 _____ 6 All ---------- 7 No ----------	
113	In the last 3 months, have you actually provided family planning to post abortion clients?	1. Yes_____ 2. No _____	If no skip to Q115
114	In your opinion which element of post abortion care is provided inadequately in your health center (circle all that apply)	1. Emergency treatment_____ 2. Post abortion FP provision _____ 3. Link to other RH services _____ 4. Counseling _____ 5. Community-service provider partnership_____ 6 All 7 I do not know	
115	Where do you think is the best place to provide post abortion FP	1. FP unit_____ 2. Delivery room_____ 3. MVA procedure room_____ 4. All _____ 5. I don't know_____	
116	In your opinion whose responsibility is it to provide post abortion FP	1. FP staff _____ 2. All staff involved in post abortion care_____ 3. Delivery room staff_____ 4 All---------- 5 I do not know	

Part II POST ABORTION CONTRACEPTIVE COUNSELING

No	Question and filter	Alternative choices for responses	Skip to
117	Where did contraceptive counseling take place?	1. In the procedure room _____ 2. At the family planning room_____ 3. Delivery room _____ 4. Not observed _____ 5 I do not know----------	
118	Did the patient express a desire for contraception?	1. Yes _____ 2. No _____ 3. Not observed _____	If no skip to Q121
119	If the patient desired a contraceptive, what method was she given?	1. Male Condom _____ 2. Combined oral contraceptive_____ 3.Injectable_____ 4. Implant _____ 5. IUD _____ 6. Not observed ---------- 7 I do not know _____	
120	If the patient was not given her desired contraceptive method, was she:	1. Sent home with no further information or services?_____ 2. Given a referral slip to go elsewhere?_____ 3. Given an appointment for another time at this clinic?_____ 4. Not observed_____ 5. I do not know ___	
121	If desired method unavailable or contraindicated, was the patient offered an alternative method?	1 Yes_____ 2 No_____ 3 Not observed _____	
122	If the patient did not accept the alternative method, why not?	1. Patient did not like the alternative method_____ 2. Alternative method not available at site_____ 3. Medical contraindication to alternative method_____ 4 All. ._____ 5. I do not know_____	
123	Was the patient given verbal or written instructions on how to use the method she was given?	1. Yes _____ 2 No_____	

III. **Supplies and equipment for post abortion care in Government health centers, Addis Ababa, January 2011. 1=The item is available, Functioning and adequate 2=The item is not available, Not functioning, and /or Not adequate**

No	Question and filter	Alternative choices for responses	Skip to
124	Examination table 1 2	1 _____ 2_____	
125	Bed	1 _____ 2_____	
126	Stretcher	1 _____ 2_____	
127	Chairs or benches	1 _____ 2_____	
128	Toilet for patients	1 _____ 2_____	
129	Sink	1 _____ 2_____	
130	Running water	1 _____ 2_____	
131	Adequate room	1 _____ 2_____	
132	Electricity	1 _____ 2_____	
133	Clean linens (gowns, sheets, towels)	1 _____ 2_____	
134	Examination glove	1 _____ 2_____	
135	Locked storage area	1 _____ 2_____	
136	Reusable masks	1 _____ 2_____	
137	Eye protection (goggles)	1 _____ 2_____	
138	Cleaning glove	1 _____ 2_____	
139	Surgical gowns or aprons Adjustable lighting	1 _____ 2_____	
140	Instrument table	1 _____ 2_____	
141	Sterilizer	1 _____ 2_____	
142	Container (For storing sterilized instruments)	1 _____ 2_____	
143	Stethoscope	1 _____ 2_____	
144	Blood pressure gauge	1 _____ 2_____	
145	Thermometer	1 _____ 2_____	
146	Vaginal speculum	1 _____ 2_____	
147	Sponge forceps	1 _____ 2_____	
148	Sharp disposal container	1 _____ 2_____	
149	Container for disposing contaminated trash	1 _____ 2_____	
150	Flash light (emergency light source)	1 _____ 2_____	
151	MVA single valve syringe	1 _____ 2_____	
152	Valve set replacement for single valve	1 _____2_____	
153	MVA double valve syringe (with adaptors)	1 _____ 2_____	
154	Valve set replacement for double valve	1 _____ 2_____	
155	MVA cannula 4mm-12mm	1 _____ 2_____	
156	IEC materials	1 _____ 2_____	

Study Information Sheet

A questionnaire prepared to assess the Quality of post abortion care service among health professionals working in government health centers in Addis Ababa city administration.

In ensuring the health of women the understanding of existing problems is very important. you are cordially invited to participate in the study entitled "Assessment of Quality of post abortion care service in government Health centers in Addis Ababa". The study attempts to assess Quality of post abortion care service among health professionals working in government health centers and functional status of post abortion care service equipments and supplies in government Health centers in Addis Ababa. The finding of the study will be used for better planning & intervention of post Abortion care services in Ethiopian. The study will help us better understand what people think, say and do about post Abortion care.

Title: assessment of quality of post abortion care services in government health centers in Addis Ababa

Objectives: To assess available human resources, functional status of equipments and family planning aspects of quality of post abortion care services in public health centers of Addis Ababa

Purpose of the study: This study is planned to generate information on quality of post abortion care service that can be used to design effective health intervention programs.

Procedure: Structured questionnaire will be developed in English and information will be collected from 358 health professionals who are working on post abortion care service in public health centers in Addis Ababa. If you are willing to participate in this study, you will fill the attached questionnaire. Your truthful and keen participation in responding to this questionnaire is greatly appreciated.

If you have any question you can contact the principal investigator at any time convenient for you using the following address:

Name: Yeshiwass Beyene phone number: 0911311727

Address: Add is Ababa, Ethiopia

E-mail: yeshiwass58@yahoo.com

Informed consent form

Assessment of quality of post abortion care service in government health centers in Addis Ababa

Questionnaire to be filled by health professionals working on post abortion care service in public health centers in Addis Ababa

I have got sufficient information through description of the study entitled "Assessment of Quality of post abortion care service in public Health Centers in Addis Ababa" by reading the information sheet. I have had opportunity to ask question about the study and any questions that I have asked have been answered to my satisfaction. Hereby, I voluntarily participate in this study. I know that I can refuse to participate in the study without penalty or loss of benefit to which I would have been otherwise entitled. I have the right to withdraw from this study any time I want, without any negative impact on me.

Do you wish to participate in the study?

Yes, I want to participate in the study (please go to the next page)

No, I don't want to participate.

Thank you!

Signature_____

Date _____