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Maternal satisfaction with the quality of post-abortion care in Ethiopia at teaching hospitals of Amhara regional state by 2023

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Abstract

Background Every year, complications from abortion cause millions of women's serious injuries and over 47,000 deaths globally. While many regions of Sub-Saharan Africa restrict access to safe abortion procedures, Ethiopia's government is attempting to address maternal morbidity and mortality associated with abortion by offering post-abortion care services to all women. The primary determinant of the quality of health treatment is thought to be client satisfaction. Services for post-abortion are still lacking and disregarded in Ethiopia's contemporary healthcare system. Thus, this study's main goal was to investigate the state of post-abortion care services, with a particular emphasis on client satisfaction, the suitability of legal requirements for safe abortion services, service provider competency, and the establishment of animosity.

Methods A facility-based cross sectional study was conducted from March 01/2023 to July 30/2023. The study was conducted at eight selected maternity teaching hospitals located in the Amhara regional state. Eight BSc midwives who had received three days of training collected the data via a structured questionnaire. A quota sampling technique was carried out for all post-abortion patients who were consecutively served at facilities. The chi-square test and multivariable logistic regression methods were employed using SPSS 23. The strength of associations and significance level were examined using P values of less than 0.05 and odds ratios at 95% confidence intervals respectively. Multicollinearity and model fitness were also checked.

Results A total sample size of 384 were employed with a response rate of 100%.The overall magnitude of women's satisfaction in this study was (34.11% (27.45%_39.05%)). Educational status, living solely, having an unplanned pregnancy and having a hostile infrastructure are the determining factors for women's satisfaction with the quality of Post-abortion care.

Conclusion and recommendation The overall magnitude of women's satisfaction (34.11% (27.45%_39.05%)) is extremely low in this study. Therefore, health care providers and policy makers in the health sector had to struggle with the quality of PAC for improved client satisfaction.

Keywords Post-abortion care, Satisfaction, Women, Quality of care, Ethiopia

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Introduction

Post-abortion care (PAC) is a comprehensive service for treating women who present to a health care facility after abortion has occurred spontaneously or after attempted termination [1, 2]. Over the last few decades, PAC has been considered an inclusive package of medical and public health interventions beyond primarily oriented emergency medical treatment [1, 3]. Maternal and service provider partnerships, post-service counseling, emergency treatment, family planning, and linkages to other reproductive health services should be considered for PAC to have clinical and scientific acceptability [4, 5].

Although there are no reliable data on the national incidence of unsafe abortion in Ethiopia, some older household and hospital-based studies found that unsafe abortion accounts for as much as 25-50% of maternal deaths in some regions and that poor post-abortion management was among the main avoidable factors contributing to these deaths [1, 6–8]. In 1996 National Safe Motherhood Needs Assessment found serious deficiencies in the availability and quality of post-abortion care (PAC) in Ethiopia [8]. The three elements of PAC are Emergency treatment services for complications of spontaneous or unsafely induced abortion, Post-abortion family planning counseling and services, and Links between emergency abortion treatment services and comprehensive reproductive health care [9–11].

Every year, more than 47,000 women die worldwide, and millions of women face major injuries due to abortion complications [11, 12]. Although access to safe abortion services and its PAC are restricted in many parts of Sub-Saharan Africa, the government of Ethiopia is trying to address abortion-related maternal morbidity and mortality by providing PAC services to all women [11, 13, 14].

Numerous studies have shown that patient satisfaction is a good indicator of treatment compliance, continued use of healthcare services, referrals to others for healthcare services, and useful feedback for assessing health programs [15–17]. A patient's assessment of the quality or appropriateness of the nursing care they receive is known as patient satisfaction with nursing care [17]. We sought to understand the meaning people who have given birth and have had an abortion ascribe to being accompanied by partners, family members and friends during these reproductive experiences [18, 19]. One of the objectives of healthcare organizations is to achieve a high degree of patient satisfaction with nursing care, which is a significant result of health care services [20, 21].

The patient perspective of quality health care is a more valuable indicator because satisfied clients are more likely to comply with treatment and continue with future post procedure follow-ups, which is the most important part of PAC [22].

The available evidence revealed that the age of the woman, educational status, marital status, waiting time, pregnancy status (wanted or unwanted), post-abortion contraception, care provider approach, privacy and confidentiality, presence of companionship and maternal involvement were associated with maternal satisfaction [2, 4, 13, 14, 22–24].

An Ethiopian woman's lifetime risk of dying from maternal causes is high, at 1 in 14, compared with 1 in 2566 among women living in North America [1]. This increased lifetime risk of death in Ethiopia is primarily due to unsafe abortion complications and restricted abortion services, as per the legal provisions of safe abortion services in article 551. Despite this burden, professionals are focusing only on the emergency management part of abortion services. Post-abortion services are still unavailable and are neglected in the modern health care system of Ethiopia.

Therefore, the primary aim of this study is to explore the status of PAC services by focusing on client satisfaction, service provider competence, setup hostility and the applicability of the legal provisions for safe abortion services. We included nine items showing PAC and client provider interaction component and five items about the PAC service delivery pattern to assess satisfaction in the questionnaire [1, 9, 11].

Methods and materials

Study design and setting

An Institutional based cross sectional study was conducted at eight selected maternity teaching hospitals located in the Amhara regional state. The University of Gondar Hospital, Tibebe Ghion Referral Hospital, Dessie Referral Teaching Hospital and Debre Birhan Referral Hospital were our study areas in the region. The survey was conducted from March 01/2023 to July 30/2023. All the hospitals provide basic maternity health services such as comprehensive abortion care, PAC, management of high-risk cases, labor and delivery services, and gynecologic management. According to comprehensive abortion care coordinators' report, in all the above study setting was a yearly report of 1207 PAC service users. This figure is the commutative of both from safe abortion and spontaneous abortion cases who utilized PAC service.

Study population

All reproductive-aged women who received abortion services or who came for PAC in the study areas during the data collection period were included in the study. Women who had serious illness and had difficulty hearing and speech were excluded.

Sample size determination and sampling technique

The sample size was determined using a previous study in which 50% [3]of women were dissatisfied with the quality of PAC service ($p = 0.5$) (the level of significance of the population was 95%, Z $\alpha/2 = 1.96$). A 5% level of precision (d = 0.05). Ultimately, the sample size included was 384. A quota sampling technique was carried out for all post-abortion patients who were consecutively served at facilities and were included in the study until the required number of cases was reached.

Data collection and analysis procedures

Eight BSc midwives who had received three days of training collected the data. The necessary data were gathered via a structured questionnaire. Questionnaire is an instrument that was validated and used in a previous study [1, 9].Convenience of the service hour was evaluated by interviews with PAC clients in addition to client happiness, as has been linked to client satisfaction in numerous studies. Since there was armed conflict in the region during the data collection period, we have recruited data collectors and supervisors as per this convince. For the analysis, SPSS version 16 was utilized. Following data collection, the data were examined for internal consistency and completeness before being subjected to descriptive statistical analysis. To assess the relationship between dependent and outcome variables, bivariate and multivariate analyses yielded crude odds ratios (CORs) and adjusted odds ratios (AORs) with 95% confidence intervals. The Hosmer–Lemeshow goodness of fit test was done. Multi-collinearity were checked to asses a strong linear relationship among the predictor variable.

Table 1 Distribution of the sociodemographic characteristics of the respondents in Amhara regional State, Northwestern Ethiopia, 2023 ($n = 384$)

Characteristics	Satisfied ($n = 131$) n(%)	Unsatisfied ($n = 253$) n(%)	Total n(%)
Age group			
18–24	61(15.88)	70(18.23)	131 (34.11)
25–34	63(18.41)	121(31.51)	*184(47.92)*
≥ 35	07(1.82)	57(14.84)	*64(16.66)*
Educational status			
Had formal education	75(19.53)	128(33.33)	203(52.86)
Had not formal education	56(14.58)	125(32.55)	181(47.13)
Residence			
Urban	68(17.71)	145(37.76)	213(55.47)
Rural	63(16.41)	108(28.12)	171(44.53)
Monthly income(ETB*)			
≤ 22 Dollar	27(7.03)	76(19.79)	103(26.82)
> 22 dollars	104(27.09)	177(46.09)	281(73.18)
Marital status			
Married	111(28.91)	188(48.96)	299(77.86)
Not married	20(5.21)	65(19.93)	85(22.13)
Religion			
Orthodox	101(26.30)	147(38.26)	248(73.96)
Muslim	19(4.95)	78(20.31)	97(25.26)
Protestant	11(2.86)	30(7.82)	41(10.68)
Infrastructure			
Comfortable	73(19.01)	33(8.59)	106 (27.60)
Not comfortable	58(15.11)	220(57.29)	278 (72.40)

***ETB**- Ethiopian Birr*

Quality control measures

Pretests were conducted on all data gathering tools at one of the PAC service delivery locations. A pretest using 5% of the sample size was conducted, and the data gathering tool was then revised. In addition, the entire process of gathering data was overseen with supervisors and the principal investigator.

Operational definitions

Quality "Quality of PAC" was assessed based on client satisfaction, providers' technical competency and setup or facility assessment [1, 16].

Client satisfaction overall client's perception of the PAC services she received [1, 4].

Comfortable infrastructure in a healthcare facility refers to the physical environment and design elements that prioritize the comfort, safety, and well-being of patients, staff, and visitors [1, 10].

Technical competence refers to the qualifications, training background, skills and experience of providers [1].

Satisfactory for quality of PAC if a woman responded yes for > 50% of the interviewed quality questions, they were satisfied with the PAC they received [1, 2].

Objective To determine women's satisfaction on the quality of post abortion care in teaching hospitals of Amhara regional state.

Results

Distribution of sociodemographic characteristics

A total of 384 respondents were included in this study, for a response rate of 100%. The majority of the respondents were in the 25–34 years age group, were orthodox Christian in religion, were urban residents and had a monthly income greater than 22 dollar (Table 1).

Distribution of reproductive and clinical characteristics

The majority of the respondents were in their first trimester of pregnancy, were pregnant, were pregnant, had no history of abortion or spontaneous abortion (Table 2).

Table 2 Reproductive and clinical characteristics of respondents in Amhara regional State, Ethiopia, 2023 ($n=384$)

Characteristics	Satisfied($n=131$) n(%)	Unsatisfied($n=253$) *n*(%)	Total *n*(%)
Gestational age			
First trimester	92(23.96)	191(49.74)	283(73.70)
Second trimester	39(10.15)	62(16.15)	101(26.30)
Gravidity			
Primigravida	47(12.24)	66(17.19)	113(29.43)
Multigravida	84(21.87)	187(48.70)	271(70.57)
Pregnancy			
Wanted	90(23.43)	138(35.94)	228(59.37)
Unwanted	41(10.68)	115(29.95)	156(40.63)
Desire to be pregnant soon			
Yes	71(18.49)	113(29.43)	184(47.92)
No	60(15.62)	140(36,46)	200(52.08)
History of abortion			
Yes	23(5.99)	55(14.32)	78(20.31)
No	108(28.13)	198(51.56)	306(79.69)
Type of abortion (current)			
Spontaneous	58(15,11)	231(60.15)	289(75.26)
Induced	73(19.01)	22(5.73)	95(24.74)
Counseling on RH*issues			
Yes	60(15.63)	146(38.02)	206(53.65)
No	71(18.49)	107(27.86)	178(46.35)
Linkage to other reproductive health issues			
Yes	88(22.92)	14(3.64)	102(26.56)
No	43(11.20)	239(62.24)	282(73.44)
Family planning counseling			
Yes	100(26.04)	189(49.22)	289(75.26)
No	31(8.07)	64(16.67)	95(24.74)
Family planning service			
Yes	89(23.18)	85(22.13)	174(45.31)
No	42(10.94)	168(43.75)	210(54.69)
Companionship allowed			
Yes	40(10.42)	49(12.76)	89(23.18)
No	71(18.49)	224(58.33)	295(76.82)

** **RH**- reproductive health*

Post-abortion care and client-provider interaction

Most of the respondents were politely and respectfully treated by the providers who listened to their ideas, responded appropriately to their questions, feel they obtained all the information they wanted, and got health examination by the provider, and received contraceptives. (Table 3).

Factors associated with women's satisfaction with the quality of postabortion care

The overall prevalence of maternal satisfaction with women's quality of care in this study was 34.11% (27.45%_39.05%). In this study, being uneducated, living solely, having an unplanned pregnancy and having a hostile infrastructure were the determining factors for women's satisfaction with the quality of women-centered PAC (Table 4).

Discussion

Key findings

The primary finding of the study was the measurement of maternal satisfaction with the quality of PAC in teaching hospitals in the Amhara regional state. The overall prevalence of maternal satisfaction with women's quality of care in this study was 34.11% (27.45%_39.05%) with a response rate of 100%. The facility based nature of the study and the approach of data collectors helped us to have to have this response rate. Unfortunately, this finding is much lower than that of studies performed in Pakistan, Thailand, Ethiopia [2–4, 17, 25]. Regardless of the possible reason for this large discrepancy, this is one of the highly discouraging findings in the modern health care system of Ethiopia. It also signifies a marked violation of women's rights; because abortion service is beyond medical care, it also has a humanistic dimension. The possible reasons for this discrepancy might be the differences in timing and study areas. Meaning, the need of women and service of facilities might differ from time to time and place. Currently, health care policies, health professionals and even researchers are focusing on the emergency management of abortion, ignoring its post-abortion components [1, 3, 25]. This, in turn, diminishes the quality of PAC, patient-provider harmony and client satisfaction.

Interpretation

In this study, lack of schooling quote (0.69 (0.0.03–0.87)) decreased the odds of maternal satisfaction with the quality PAC by 31%. This finding is in line with studies in Ethiopia [1, 4, 13, 24]. A possible justification for this reduction in maternal satisfaction could be women with no formal education will only receive the service provided by their health care worker. That means, they are less likely to ask for missed opportunities than those who had formal education.

An unmarried marital status of 0.52 (0.12–0.87) also decreases the odds of maternal satisfaction in PAC by 48%. As far as our search is concerned, we obtained only one study at Addis Ababa that showed an association

Table 3 Post-abortion care-related characteristics among clients in teaching hospitals in the Amhara regional State, Ethiopia (*N* = 384), Ethiopia, 2023

Variables	Category	Number	Percent
Treated politely and Respectfully during your stay in this hospital	Yes	197	51.30
	No	187	48.70
Did the provider listens to your idea	Yes	212	55.21
	No	172	44.79
Did the provider respond to all your questions that you raised	Yes	296	77.08
	No	88	22.92
Do you feel that you received the information and services that you wanted	Yes	101	26.30
	No	283	73.70
Did the provider conduct health examinations or procedures	Yes	267	69.53
	No	117	30.47
Did the provider tell you danger signs/that may necessitate revisiting	Yes	123	32.03
	No	261	67.97
Did you received the contraceptive method during this visit	Yes	119	30.99
	No	265	69.01
Receiving the services you came for was reasonable or too long	Reasonable	117	30.47
	Too long	267	69.53
The service provider tells you when to come back for another visit	Yes	103	26.82
	No	281	73.18
Familial support allowed	Yes	89	23.18
	No	295	76.82

Table 4 Multivariate logistic regression of factors associated with maternal satisfaction with PAC in teaching hospitals in the Amhara regional State, Ethiopia, 2023 (*n* = 384)

Variable	Maternal satisfaction			
	Yes(*n* = 131) Number(%)	No(*n* = 253) Number(%)	COR*(95%CI)	AOR*(95% CI)
Educational status				
Had formal education	75(19.53)	128(33.33)	1	1
Had no formal education	56(14.58)	125(32.55)	0.76(0.05–0.94)	**0.69(0.0.03–0.87)****
Marital status				
Married	111(28.91)	188(48.96)	1	1
Not married	20(5.21)	65(19.93)	0.52(0.12–0.87)	**0.43(0.09–0.69)****
Infrastructure				
Comfortable	73(19.01)	33(8.59)	1	1
Not comfortable	58(15.11)	220(57.29)	0.12(0.09–0.99)	**0.08(0.02–0.87)*****
Gravidity				
Primigravida	47(12.24)	66(17.19)	1.58(1.27–4.33)	**1.21(1.17–3.91)***
Multigravida	84(21.87)	187(48.70)	1	
Pregnancy				
Wanted	90(23.43)	138(35.94)	1	1
Unwanted	41(10.68)	115(29.95)	0.55(0.11–0.96)	**0.52(0.36–0.90)*****
Type of abortion (current)				
Spontaneous	58(15,11)	231(60.15)	1	1
Induced	73(19.01)	22(5.73)	13.21(6.44–19.92)	4.20(0.47–7.43)
Companionship allowed				
Yes	40(10.42)	49(12.76)	1	1
No	71(18.49)	224(58.33)	0.39(0.08–0.96)	0.18(0.07–2.70)
Desire to be pregnant soon				
Yes	71(18.49)	113(29.43)	1	1
No	60(15.62)	140(36,46)	0.68(0.21–0.88)	0.21(0.06–2.19)

**p < 0.05 ** p < = 0.01 *** p < = 0.001*

between marital status and the quality of PAC [13]. However, the possible explanation for this reduction in maternal satisfaction could be the high chance of single women having unwanted pregnancies and the need for induced abortion [26]. Therefore, since induced abortion is restricted by a penal code in Ethiopia, women might suffer overall health care seeking. This will again reduce maternal satisfaction.

An unwanted pregnancy rate of 0.52 (0.36–0.90) also reduced the odds of maternal satisfaction by 48%. This finding is in line with studies performed in Ethiopia, Senegal and Thailand [2, 13, 17]. A possible explanation for this decrease in satisfaction could be that unplanned pregnancy is a cause of induced abortion. However, induced abortion is restricted by a penal code, and unplanned pregnancies cannot be terminated. Hence, the legal process they pass will discourage them and result in dissatisfaction.

Being prim gravida (**1.21(1.17–3.91)**) also increases the odds of maternal satisfaction with the quality of PAC by 21% than those with Multigravida. Despite the lack of prior evidence to support this association, the possible reason could be due to the potential that first time pregnancies could be extramarital or with non-official relationships. Hence, such women could easily be satisfied if termination alone is done before no one knows that she is pregnant even without any further care of other PAC services.

In this study, inconvenient infrastructure of 0.08 (0.02–0.87) also decreased the odds of maternal satisfaction by 92%. This finding is in line with studies performed in Ethiopia [23, 24]. The possible reasons for this association could be the clinical nature of abortion services, which require a polite art of care and infrastructure to maintain the privacy and confidentiality of clients, especially in the Ethiopian context. Hence, if the abortion center of a health institution is not secured, women's satisfaction will decrease.

Implication of the study

The study will have a clinical contribution to addressing the satisfaction of clients by working on the quality of women-centered PAC. In addition, it will have research contribution for coming researchers for further study about the Maternal level of satisfaction and quality of PAC service in the modern health care system. Overall, it will have an implication for maternal healthcare policymakers to consider maternal satisfaction as abortion service is beyond a medical issue, it is also a human reproductive right.

Limitations of the study

The cross-sectional nature of the study might impede the cause-and-effect relationship of the factors with the outcome variable. In addition, the use of non probability quota sampling technique might reduce the credibility of the study.

Conclusion and recommendation

The overall magnitude of women's satisfaction (34.11% (27.45%_39.05%)) is extremely low in this study. Being uneducated, living solely, having an unplanned pregnancy and having a hostile infrastructure are the determining factors for women's satisfaction with the quality of women-centered PAC. There should be extensive mobilization of all healthcare workers to focus on PAC beyond the management of abortion-related emergencies. The multidimensional nature of abortion should be considered despite the legal codes of Ethiopian abortion law considering patients level of education, infrastructure inconvenience and, reproductive profile.we also recommend prospective followup studies in the area.

Abbreviations

ANC	Antenatal care
AOR	Adjusted odds ratio
COR	Crude odds ratio
ETB	Ethiopian birr
PAC	Post-abortion care
RH	Reproductive health
SPSS	Statistical Package for Social Sciences
VIF	Variance inflation factor
WHO	World Health Organization

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Author contributions

1. BBE- The corresponding author participated in design, investigation, resource, supervision, methodology, writing, reviewing, analysis, data entry, and revision. 2. WYF- is coauthor and involved in design, investigation, resource, supervision, methodology, writing, reviewing, analysis, and revision. 3. AKM - is coauthor and involved in design, investigation, resource, supervision, methodology, writing, reviewing, analysis, and revision. 4. RBA - is coauthor and involved in investigation, supervision, methodology, writing, reviewing, analysis, data entry, and revision. 5. EDY - is coauthor and involved in design, investigation, resource, supervision, methodology, reviewing, analysis, data entry, and revision. 6. BYM - is coauthor and involved in design, investigation, resource, supervision, methodology, writing, reviewing, analysis, data entry, and revision. 7. TDM - is coauthor and involved in design, investigation, resource, supervision, methodology, writing, reviewing, analysis, data entry, and revision. 8. TSY_ is the coauthor involved in design, investigation, resource, supervision, methodology, writing, reviewing, analysis, and revision.9. ESL - is coauthor and involved in design, investigation, resource, supervision, methodology, writing, reviewing, analysis, data entry, and revision.

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Data availability

All data included in this manuscript can be accessed from the corresponding author upon a reasonable request through the email address.

Declarations

Ethical approval and consent to participate
Ethics approval was obtained from the College Health Science Ethical Review Board of Debre Tabor University with reference number DTU/1092/23. Informed consent was obtained from all study subjects and health providers. Those who were unwilling to participate in the study were excluded. Names and other identifying information were not included in the study. In addition, all the research and data collection process was conducted in accordance with the declaration of Helsinki.

Consent for publication
Not applicable.

Competing interests
The authors declare no competing interests.

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Publisher's note