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Adolescents' satisfaction with abortion services received and factors associated with satisfaction at reproductive health centres

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Abstract

Aim: This study assessed adolescents' satisfaction with services received during their most recent abortion and the factors associated with satisfaction at reproductive health centres in the Greater Accra region of Ghana.

Design: A facility-based cross-sectional survey was used for this study.

Methods: Overall, 254 adolescent girls aged between 15 and 19 years, who had an abortion within 1 week of the study period were recruited for the study. All the 254 respondents were recruited consecutively as they visited health facilities for abortion services from March 2019 to February 2020. Written informed consent was signed by respondents, and data were collected using the Patient Satisfaction with Nursing Care Quality Questionnaire, and the data were analysed using Stata version 15.0. Univariate, bivariate and multivariate logistic regression analyses were conducted.

Results: A majority of adolescents reported being satisfied with the abortion services they received. Ample waiting space and the system of 'first-come-first-served' were the highest rated elements of service satisfaction. Adolescents were least satisfied with the inadequacy of instructions and lack of information on medications received and their therapeutic or side effects. Ethnicity, having a stable intimate partner and perceived adequacy of staff were the factors associated with satisfaction with abortion services.

Conclusion: Adolescents are unique group of people with peculiar health needs. If they are treated with respect and dignity, they are likely to be satisfied with services received from the reproductive health centres offering comprehensive abortion care.

Impact: The study addresses adolescent satisfaction with abortion care received; if health providers treat adolescent seeking abortion care with respect, friendly and non-judgemental attitude, it will enable adolescents to seek abortion care from qualified professionals instead of unskilled service providers to reduce maternal mortality.

Patient's contribution: Patients from 11 reproductive centres responded to the questionnaire used for the data collection.

KEYWORDS
abortion, adolescent, comprehensive abortion care, factors, intimacy, midwife, nursing, reproductive health, satisfaction

1 | INTRODUCTION

Globally, adolescent girls are progressively exposed to risky sexual behaviours because of the wide gap between the age of menarche and age of marriage, partly because of a long stay in school, poverty and lack of education on family planning utilization (Aryeetey et al., 2011). This results in adolescent pregnancy which truncates adolescents' childhood and jeopardizes' their right to a safe transition into adulthood before they develop completely physically, emotionally and socially (Durowade et al., 2017). These adolescents tend to drop out of school to become mothers. To avert this situation, most pregnant adolescents and/or their parents seek abortion care to enable them complete the transition to adulthood (Durowade et al., 2017).

In many societies in sub-Saharah Africa including Ghana where the burden of adolescent pregnancy and subsequent abortion are high, it is increasingly being recognized that the need for comprehensive abortion care requires improvements to improve maternal survival among adolescents who undergo abortion care (Mutua et al., 2018). It is estimated that majority (86%) of adolescents who seek abortion services live in low-income countries where there are challenges to achieving many targets of the Sustainable Developmental Goals (Ganatra et al., 2017). In addition, healthcare providers are not providing adolescents with compassionate, non-judgmental and adolescent-friendly services (Geary et al., 2014; Lim et al., 2012). Consequently, many adolescents do not comprehend information about reproductive health care in order to utilize these services (Oyediran et al., 2019). There is also limited discussion on adolescents seeking abortion services and their satisfaction with such care in Ghana, due to the overbearing influence of traditional culture, religious beliefs and norms on abortion in many societies. Globally, information on satisfaction with abortion care among adolescents is limited, due to the fact that many countries do not endorse adolescent abortion even though adolescents have reproductive rights and can decide to keep their pregnancy or seek abortion care. There is, therefore, the need to understand from adolescent perspective, their expectation during abortion care and their satisfaction with services received.

2 | BACKGROUND

Satisfaction with abortion services among adolescents is a fundamental phenomenon that identifies the abortion care needs of adolescents, and indicates the need to improve comprehensive abortion care for all. Satisfaction is, therefore, the degree of congruency between a patient's expectations of ideal care and actual care received at a health facility. Information from patient's feedback to healthcare services received is one way of assessing the quality of health care rendered to a patient and establishing a robust patient engagement (Kamimura et al., 2015).

Each year, 50% of all adolescents' conceptions worldwide end up in induced abortion of which 10% are unsafe. In sub-Saharan Africa, 25% of all abortions are carried out on girls aged between 15 and 19 years (Sawyer et al., 2012), while in Ghana, it is estimated that 12% of abortions in 2018 were due to adolescent pregnancy. An autopsy study carried out at the Korle Bu Teaching Hospital in Accra on maternal mortality cases cited abortion as the leading cause of death among female adolescents (GHS, 2018). This shows that a number of adolescents are seeking and undergoing abortion in various health facilities are on the increase. For those who patronize reproductive health services, another issue is how satisfied they are with abortion services. The marginalized and vulnerable people in society tend to be dissatisfied with public health services and adolescents are no exception when it comes to abortion services (Amin & Nasharuddin, 2013).

Globally, studies have revealed that women and their sexual partners have rated overall quality of abortion care as satisfactory (Makenzius et al., 2012). In other studies dissatisfaction with abortion care is associated with long waiting times between the booking visit and the day of abortion and insufficient pain relief (Fantahun et al., 2022). Health provider attitude towards induced abortion care varies, which sometimes affect the personal attention given to women accessing abortion care (Harris et al., 2011). Although general health care can be positive, midwives can be restrictive in their views and attitudes towards abortion services (Hammarstedt et al., 2005; Harris et al., 2011). Similarly, women's expectation during abortion vary and they can be disappointed with the inability of midwives to identify and provide their needs in related to abortion care (Stålhandske et al., 2011).

In Ghana, the relatively liberal abortion policy has made it possible for the introduction of manual vacuum aspiration (MVA) for women who need abortion service up to 9 weeks' gestation (Ministry of Health of the Republic of Ghana, 2012). This intervention has, however, not been able to reduce unsafe abortion to a desirable level due to traditional or cultural norms that prevent adolescents from visiting reproductive health centres for comprehensive abortion care.

Although globally, there has been an increase in awareness about sexual and reproductive health issues, due partly, to a number of initiatives and interventions, including the International Conferences on Population and Development (ICPD) in Cairo in 1994 and the Fourth World Conference on Women (FWCW) in Beijing in 1995. As a result of this generalized awareness, issues on abortion among adolescents have also received some attention. This notwithstanding, adolescent abortion remains a sensitive reproductive health issue. Issues of legality and moral concerns around the subject continue to hinder progress in comprehensive abortion care (Haddad & Nour, 2009). Also, dissemination of health information and services to adolescents are sometimes restricted due to sociocultural, political and economic factors (WHO, 2018). Adolescents have a need for abortion services, hence legal restrictions often do not decrease the demand for services, but rather influence adolescents to seek illegal abortion services. In addition, healthcare providers are not providing adolescents with compassionate, non-judgmental and adolescent-friendly services. Consequently, many adolescents do not utilize these services (Oyediran et al., 2019).

While there are clear indications that abortion among adolescents is an important public health challenge, discussion on this subject and indeed studies on satisfaction with abortion care received in Ghana and other countries are limited. This is

understandable, given the overbearing influence of traditional culture, religious beliefs and norms on abortion in many societies (Gesteira et al., 2008). However, if interventions are to be developed to improve adolescents' sexual and reproductive health in general and address adolescents' access and utilization of abortion services in health facilities, then there is a need for empirical research on their satisfaction with abortion services. In contribution to the need for empirical data, this study assessed adolesent satisfaction with abortion services received in selected reproductive health centres in an urban city of Ghana.

3 | THE STUDY

3.1 | Aims

The aim of the study was to assess adolescents' satisfaction with services received during their most recent abortion and determine the factors that are associated with their satisfaction with services received at RH centres.

4 | METHODS/METHODOLOGY

4.1 | Design

A facility-based cross-sectional survey was employed to assess the adolescents' satisfaction with abortion services received and the factors associated with satisfaction.

4.2 | Instrument with validity and reliability

The questionnaire was the instrument used in data collection in this study. The questionnaire comprised two sections. Section 1 elicited respondents' background information including age, residence, living arrangement, level of education, socio-economic status of family and ethnicity. Socio-economic status of the respondents was assessed by using socio-economic status (SES) scale (Filmer & Pritchett, 2001), which involved asking respondents questions on whether they had a number of durable household assets as well as access to selected utilities and sanitation facilities. This assessment was conducted to categorize participants into three socio-economic groups. Section 2 solicited information on participant's satisfaction with the abortion service received. Questions from the Patient Satisfaction with Nursing Care Quality Questionnaire (PSNCQQ) (Reck, 2013) were adapted and used to determine respondents' satisfaction with the abortion care they received. The PSNCQQ has been used extensively to determine patients' satisfaction with nursing care rendered in various settings. It was adapted and modified to suit the abortion care setting. Areas of abortion care that were assessed were pre-abortion counselling, abortion procedures, staff competence, staff attitude and post-abortion counselling. The scale consisted of 19 items pertaining to features of a wide range of midwifery activities including midwives' attention, kindness, respect, courtesy, skills, competence and fulfilment of patient needs. The modified scale measured satisfaction in different areas of abortion care. Respondents answered the questions on a 4-point scale: 1 = very satisfied, 2 = satisfied, 3 = dissatisfied and 4 = very dissatisfied.

To ensure reliability, a reliability analysis using Cronbach's alpha was done with all the items measuring satisfaction with abortion. An overall Cronbach alpha of 0.79 was reported, and this indicated that the tool was reliable.

In this study, validity was ensured by adapting a validated scale on client satisfaction of nursing care. Furthermore, the tool was reviewed by all the authors to ensure that the content and constructs of the tool measure satisfaction of abortion care. Items that were ambiguous or lacked cultural relevance were deleted.

4.3 | Sampling and recruitment

The health facilities were selected based on the availability of CAC service and the number of adolescents that used the CAC services during the past year. Before the recruitment, an agreement was reached whereby during the counselling phase of care, the midwives informed all adolescents who visited the selected centres for abortion care about the study. All adolescents who indicated interest in participating in the study had their names, contact addresses and phone numbers recorded. The list of interested adolescents formed the sample frame from which participants were selected. Abortion, especially among adolescents, remains a contentious subject in Ghana, it was difficult to judge the reliability of the data from the 11 health facilities used because of these statistical and practical difficulties, and respondents were recruited consecutively as they visited the reproductive centres. That is, all adolescents who reported to any of the 11 health facilities for abortion care between March 2019 and February 2020 were informed of the study by the midwives at the various RH centres.

The researchers contacted the interested adolescents by phone and explain the objectives of the study to the adolescents. They were given 3 days to decide whether to participant or not. They were called after the 3 days for a final decision and those who agreed to participate, a day, time and venue for the data collection was arranged, which was often the day of the next review visit at the RH centre, depending on the preference of the adolescents. By the end of February 2020, a total of 259 adolescents has agreed to participate from all the centres.

4.4 | Sample size and power

A sample size of 270 was derived using Fisher's sample size formula shown below with 20% abortion satisfaction in Ghana (Ghana Statistical Service, 2016).

$$n = \frac{Z^2 \times P\ (1 - P)}{E^2}$$

where n is the sample size required; Z the confidence level (95% level of confidence−1.96); P the population proportion of satisfaction in Ghana (20%); E the margin of error (5% = 0.05).

$$n = \frac{1.96^2 \times 0.20\ (1 - 0.20)}{0.05^2}$$

$$n = \frac{3.8416 \times 0.20\ (0.80)}{0.0025}$$

$$n = \frac{0.614656}{0.0025}$$

$$n = 245.86 = 246.$$

Sample size = 246.

To account for contingencies such as non-response or recording errors, a 10% upward adjustment was made.

$$246 + 24 = 270.$$

This resulted in an effective sample size of 270. However, 259 questionnaires were given out to interested respondents who agreed to participate but five of the questionnaires were not complete and therefore rejected. By the end of the data collection, 254 complete questionnaires were used for data analyses which covered the main sample size of 246.

4.5 | Quality appraisal

In order to ensure that the questions were clear to the respondents, the questionnaire was pre-tested. The pre-test enabled data collectors to understand the questions very well and also revealed likely problems that might come up during actual data collection. This led to the finalization of the questionnaire before the commencement of actual data collection for the study. The pre-test was conducted on 10 respondents at a similar facility.

4.6 | Data abstraction

Questionnaires were manually screened for completeness by the researchers and then entered in Excel by the first author and a trained data entry assistant for purposes of comparison. Data entry screen for questionnaires was designed with appropriate variable definitions and consistency checks. Appropriate steps were taken to avoid out-of-range responses to minimize errors during the data entry process. The researchers carefully edited the data by running preliminary frequencies of all the variables to check for inaccuracies. Inconsistent responses and recording irregularities were then deleted.

4.7 | Population

The study population comprised adolescents aged 15–19 who had an abortion between March 2019 and February 2020 at selected public health facilities in the Greater Accra Region.

4.8 | Inclusion and/or exclusion criteria

1. Adolescent girls' resident in the Greater Accra Region for at least 6 months.
2. She should have started the process of abortion either at any of the selected RH centres or elsewhere but ending the procedure at any of the selected RH centres.
3. She should have consented to participate in the study.
4. She should have been able to express herself in English, or any of the following Ghanaian languages Ga, Twi or Ewe were included in the study. However, adolescents who met the inclusion criteria but who were indisposed or who indicated that they were severely ill during the time of data collection were excluded from the study as well as those who did not consent to participate in the study.

4.9 | Data sources/collection

Written permission was obtained from the management of the health facilities.

The data were collected using a survey method. This was done through face-to-face administration of a paper-based structured questionnaire by the first author and four research assistants. A suitable time and venue were agreed upon with the respondents prior to the day for respondent's review. After being attended to by the midwives on the day of review, the respondents met the researcher at the agreed venue. Two informed written consent were signed by the respondents after reading or objectives explained to their understanding. The questionnaires were handed over to respondents to fill out. It took between 20 and 30 min to complete the questionnaire and was handed back to the researchers on the same day.

4.10 | Data analysis

Descriptive statistical analyses were done and results were presented in tables and pie charts for nominal and ordinal level variables. Mean and standard deviation was used to summarize selected continuous variables such as age in completed years, number of siblings and age at first menstruation. Frequencies and percentages were used to describe categorical variables. The proportion of respondents indicating satisfaction with abortion care practices was presented in a pie chart.

For the bivariate analysis, Pearson's chi-squared test was used to assess the association between categorical independent variables and the binary outcome variable, which was adolescent's satisfaction with abortion care. All variables that were significant at the bivariate level were then considered in the binary logistic regression and multiple binary logistic regression models (fixed effect model) to estimate the crude and adjusted odds of satisfaction with abortion care. A multilevel random effect model at the facility level was then fitted to also adjust for variation across the different facilities and similarities within the same facilities.

By comparing the performance of the multilevel fixed effect model to the fixed effect model, the Akaike information criteria (AIC), Bayesian information criteria (BIC), area under receiver operating curve (AUROCC), test of equality of AUROCC and the likelihood-ratio test statistics were used. Lower values of AIC and BIC indicated satisfaction while higher value of AUROCC indicated dissatisfaction. A significant test from the AUROCC and likelihood-ratio test indicated that the multilevel random effect model was performing better. All statistical analyses were considered significant with *p*-values below .05 at 95% confidence level.

4.11 | Ethical consideration

Ethics approval for this study was obtained from the Ghana Health Service Ethics Review Committee (Protocol Number: GHS-ERC008/01/19). Further administrative approvals were obtained from all the selected health facilities, as well as from the Medical Director and Deputy Director of Nursing Services in charge of all selected health facilities in the Greater Accra Region through a written letter from the School of Public Health and the Greater Accra Regional Directorate.

For respondents aged 18 years and above, a written informed consent was obtained from each participant. For those who could read and write in English, they were given the opportunity to read and sign. For those who could not read, the consent document was read and translated into the four selected Ghanaian languages of their choice so that they could understand and decide to either participate or decline. Those who could not sign were asked to thumbprint on the consent form.

For respondents who were aged below 18, a parental consent waiver was sought and obtained from the Ghana Health Service Ethics Review Committee. Parental consent waiver was justified on the grounds that seeking consent from the parents of these adolescents might prevent them from participating in the study given that some of them sought abortion care without the knowledge of their parents. However, for those who were accompanied by a parent and willing to participate, consent was sought from the parent and child assent was also sought from the adolescent. The confidentiality of all respondents recruited into this study was protected. Names of participants were not written on the research questionnaire.

5 | RESULTS

5.1 | Background characteristics of respondents

The study respondents were 15–19 years old with the mean age of 17.50 (±1.2) years. The majority of respondents 27.60% were aged 19 years. Four out of every 10 (43.3%) adolescents surveyed were living with both parents.

Majority (85.4%) said they professed the Christian faith with 43.7% of respondents had attained senior high school education as their highest qualification. The mean age at first menstruation among the adolescents was 12.50 (±1.3) years with 73.2% in a sexual relationship. Over a third of the respondents were Akans. Mutual sexual partners were responsible for 74.0% of the pregnancies among the adolescents in the study, while 71.7% of the respondents were pregnant for the first time. For the majority (81.89%), it was their first time of having abortion. Also, 30.3% of the respondents terminated their pregnancies at 6 weeks, while the majority (43.3%) of respondents were influenced to terminate their pregnancies by their partners (Table 1).

5.2 | Abortion care at health facilities

Table 2 shows the findings of data on abortion care respondents received at health facilities. Approximately, half (49.2%) of the respondents thought the staff at the RH centre were inadequate. Also, 81.9% said the comprehensive abortion care at the RH centres was expensive (200 Ghana cedis). About half of the respondents (51.9%) initiated the abortion procedure from home. Similarly, 50.4% of the respondents terminated their pregnancies at the RH centre through surgical methods (MVA).

5.3 | Adolescents' satisfaction with abortion services received at the RH Centre

Table 3 summarizes findings on the frequency and percentage distribution of the responses in relation to their satisfaction with the abortion services they received at the health facility. Although the majority of the respondents were satisfied with the service received, waiting space and the system of first-come-first-served were the highest rated satisfaction (86% and 80.7%), respectively. The least satisfaction was recorded by instruction on medicine and it is therapeutic or side effect (69.8%) with the rest of the items rated between 72% and 78%.

On a scale of 1–4, the mean satisfaction score for the 19-items satisfaction scale was 2.50 with a standard deviation of 0.67. Overall,

TABLE 1 Background characteristics of respondents.

Variables	Frequency ($N = 254$)	Percent
Age in completed years (mean ± *SD*)	17.54 ± 1.22	
15	18	7.09
16	32	12.6
17	68	26.77
18	66	25.98
19	70	27.56
Number of siblings (mean ± *SD*)	3.60 ± 1.55	
<3	49	19.29
3–5	183	72.05
6–10	22	8.66
Person staying with		
Both parents	110	43.31
Single parent (mother)	74	29.13
Others guardians	70	27.56
Religion		
Christianity	217	85.43
Islam	37	14.57
Highest education		
No education	15	5.91
Primary	18	7.09
JHS	91	35.83
SHS/Vocational training	111	43.7
Tertiary	19	7.48
Age at first menstruation (mean ± *SD*)	12.49 ± 1.25	
10–12 years	114	43.98
13–15 years	140	55.12
Mutual intimate relationship		
Yes	186	73.23
No	68	26.77
Ethnicity		
Akan	90	35.43
Ewe	62	24.41
Ga/Dangme	74	29.13
Northerner/others	28	11.02
Socio-economic status		
High SES	50	19.69
Middle SES	90	35.43
Low SES	114	44.88
Person responsible for pregnancy		
Mutual intimate partner	188	74.02
Family member	24	9.45
School mate	39	15.35
Neighbour	3	1.18
Number of pregnancies ever had		
1	182	71.65
2	69	27.17
3	3	1.18
Number of abortions ever had		
1	208	81.89
2	45	17.72
3	1	0.39
Gestational age of pregnancy at termination (weeks)		
6–7	77	30.31
8–9	75	29.53
10–11	46	18.11
12–13	43	16.93
14–16	13	5.12
Person influenced decision to abort		
Self	74	29.13
Mutual intimate partner	110	43.31
Parent	50	19.69
Others (blood relation/ friends	20	7.87
Reason for unwanted pregnancy		
Rape	31	12.2
Contraceptive failure	26	10.24
Mistake (did not use contraceptive)	137	53.94
Incest	9	3.54
Young age	51	20.08
Reason for terminating pregnancy		
Young age	73	28.74
Further education/trade	127	50
Partner irresponsibility/ breakup	32	12.6
Cannot have child out of wedlock	20	7.87
Unfaithful to mutual partner	2	0.79

194 of the 254 adolescents, representing 76.4% were satisfied. This is illustrated in Figure 1.

5.4 | Factors associated with level of adolescents' satisfaction with abortion services

5.4.1 | Association between background characteristics of adolescents and level of satisfaction with abortion services

Table 4 shows data examining the association between background factors of respondents and level of satisfaction with abortion services received at the RH centres using Pearson's chi-squared test of association. The table shows that seven background variables

TABLE 2 Abortion care received by respondents.

Variable	Frequency	Percent
Perceived adequacy of staff at RH centre ($n=254$)		
Understaffed	125	49.21
Adequate staff	129	50.79
Affordability of cost of service at CAC centre (200 Ghc)		
Expensive	208	81.89
Not expensive	42	16.54
Okay	4	1.57
Where abortion procedure was initiated ($n=254$)		
At home	132	51.97
CAC centre	122	48.03
Drugs used at home ($n=132$)		
Misoprostol	96	72.73
Herbal concoctions	36	27.28
Methods used at CAC centre ($n=254$)		
Medical (misoprostol)	116	45.66
Surgical (MVA)	138	54.33

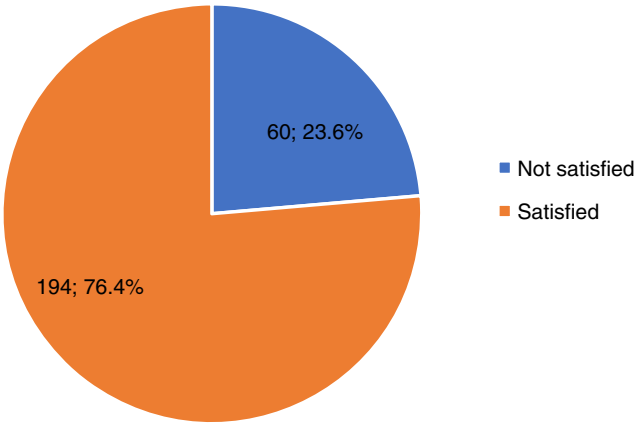

FIGURE 1 Adolescents satisfied with the health services they received.

were significantly associated with level of satisfaction with abortion services received at the health facilities. These factors are having a mutual intimate partner ($p=.001$), person responsible for pregnancy ($p=.019$), gestational age of pregnancy at termination ($p=.022$), having a past abortion history ($p=.008$), perceived adequacy of staff ($p<.001$), affordability of CAC service ($p=.008$) and the place procedure started ($p=.004$).

5.5 | Factors associated with satisfaction with abortion services

This section of the study is finding out whether certain factors are associated with the abortion care received among adolescents. The PSNQQ scale was used in assessing the level of satisfaction.

On the bivariate analysis at $p<.05$ in Table 4, seven independent variables (i.e. had a mutual intimate partner, person responsible for pregnancy, gestational age of pregnancy, have past abortion history, perceived adequacy of staff at the centre, affordability of cost of service and place where the procedure started) were statistically associated with satisfaction with abortion service. To further determine the strength of these variables, confounders were controlled for in a multiple regression model and odd ratios were estimated. The results are shown in Table 5. Since satisfaction was the exposure of interest in this analysis, the other background characteristics were considered potential confounders, and therefore, their effects on satisfaction were not reported and interpreted. The demographic factors adjusted for, as potential confounders, were identified based on the literature. The interpretation focused on the adjusted effect estimate with satisfaction.

From the binary logistic regression analysis, the crude odds ratio (COR) for satisfaction with abortion services among adolescents in an intimate relationship was 2.73, 95% CI = [1.46, 5.07], $p<.001$. Again, the COR for Satisfaction with abortion services among adolescents who thought the facility had adequate staff was 4.28, 95% CI [2.23–8.19] $p<.001$.

However, Adolescents who were in an intimate relationship were 4.02 times more satisfied compared with those who were not in an intimate relationship (AOR: 4.02, 95% CI = [1.09,14.54] $p<.001$). Furthermore, adolescents who thought the facility had adequate staff were 2.84 times more satisfied with services received compared with adolescents who perceived the RH centres to be understaffed (AOR: 2.84, 95% CI = [1.09–7.39] $p<.001$).

5.6 | Subjects

The subjects for this study were adolescents aged 15–19 years.

6 | DISCUSSION

6.1 | Demographic characteristics of respondents

A total of 254 adolescents were recruited for this study. The mean age at first menstruation among the adolescents in this study was 12.5 years. This is consistent with the global age at menarche, which has decreased and most countries are now recording from 12 to 14 years (e.g. Aryeetey et al., 2011). This suggests that pregnancy is possible at a younger age than used to be the case, leading to an increase in teenage pregnancies and subsequent abortions.

In this study, respondents who were in a mutual sexual relationship were impregnated by their sexual partners while others were impregnated by either relatives, classmates or neighbours who were not in an intimate relationship with the respondents. This reveals that people who are well known and trusted by adolescents took advantage of them. This is in accord with a study by de Guzman and Bahim (2012), which states that adolescents are vulnerable during

TABLE 3 Adolescents' satisfaction with abortion services received at RH centres.

Indicator	Very satisfied, *n* (%)	Satisfied, *n* (%)	Dissatisfied, *n* (%)	Very dissatisfied, *n* (%)
Location of RH centre	50 (19.7)	158 (62.2)	39 (15.4)	7 (2.8)
Privacy during consultation	50 (19.7)	158 (62.2)	39 (15.4)	7 (2.8)
Waiting time	9 (3.5)	183 (72.0)	21 (8.3)	15 (6.0)
Centre's waiting space	32 (12.7)	186 (73.3)	42 (16.5)	13 (5.1)
System of first-come-first-serve basis	31 (12.2)	174 (68.5)	43 (16.9)	6 (2.4)
Availability of drugs for medical/surgical abortion at all times	31 (12.2)	174 (68.5)	43 (16.9)	6 (2.4)
Counselling received before the procedure started or medication was given	45 (17.7)	154 (60.7)	43 (16.9)	12 (4.7)
Education received on post-abortion care	33 (12.9)	161 (63.4)	53 (20.9)	7 (2.8)
Willingness of staff to answer clients' questions at the unit	40 (15.8)	154 (60.6)	50 (19.7)	10 (3.9)
Information on procedure result	33 (13.0)	164 (64.6)	48 (18.9)	9 (3.5)
Confidentiality of your condition?	23 (9.1)	175 (68.9)	48 18.9)	8 (3.2)
Respect, friendliness and kindness to clients	20 (7.9)	170 (66.9)	55 (21.7)	9 (3.5)
Staff keeping track on participants' well-being	22 (8.7)	176 (69.3)	48 (18.9)	8 (3.1)
Reassurance of participants at RH centre	19 (7.5)	169 (66.5)	60 (23.6)	6 (2.4)
Clarity and completeness of pharmacist's instruction on how participants should take medicine and what to expect when participants take the medication.	22 (8.7)	155 (61.1)	71 (28.0)	6 (2.4)
Giving pain killer before and after the procedure	15 (5.9)	200 (78.7)	20 (7.9)	19 (7.5)
Counselling on family planning	20 (7.9)	170 (39.8)	57 (21.7)	7 (2.8)
Overall quality of services received during participants' visit to the CAC centre	24 (9.5)	169 (38.6)	56 (22.1)	5 (2.0)
Participants' impression about the service	22 (8.7)	173 (38.6)	55 (21.3)	4 (1.6)

their transition to adulthood and can be coerced into sexual relationships by relatives, teachers and people in authority over them. Perhaps, the changes the adolescents go through during adolescence expose them to sexual fantasies, which subsequently leads to sexual activities and pregnancies. However, if age-appropriate sex education is started from a tender age, adolescents will be able to make an informed decision when confronted with sexual exploitation from family or friends and report such people to their parents for swift intervention.

Adolescents in this study did not want to carry their pregnancies to term because they saw their pregnancies as unwanted, they were not married and did not want to give birth out of wedlock, and some wanted to continue their education while others felt too young and were scared their parents would either be hurt or disown them (adolescents) as this sometimes happens in some Ghanaian homes. Although most of the respondents were in mutual intimate relationship, they were not legally married when the pregnancies occurred, which led to the decision to abort their pregnancies. This observation was also reported by Klutsey and Ankomah (2014) in their studies, which showed that married women are more likely to keep their pregnancy than their single counterparts, which is the case of most of the adolescents in this study. In most families, couples look forward to welcome their child after marriage and this is the accepted norm in most cultures globally but the expectation of a pregnant adolescents is that of disappointment to the adolescent, the family and society at large (Mutua et al., 2018).

This notwithstanding, some of the adolescents wanted to keep their pregnancies and have their babies but were influenced by their parents or mutual intimate partners to abort. This is consistent with the study in Southern Ethiopia where 40.4% of pregnancies were terminated due to influences from their intimate partners (Mugore et al., 2016). This is due to the fact that adolescents from low-income countries are not empowered financially and often lack knowledge on sexual and reproductive health issues, they cannot make informed choices and are exposed to family decision to terminate their pregnancies due to inability to cater for the unborn child. It could also be due to the positions some parents hold in religious organizations, which resulted in the parents not allowing their adolescent girls to carry their pregnancy to term as a result of embracement associated with adolescent pregnancy in the Ghanaian culture.

6.2 | Adolescents' satisfaction with services received

The first aim of this study was to measure satisfaction with abortion care received in quantitative data. Our findings show respondents identifying specific items they were satisfied with from the services

TABLE 4 Association between background characteristics of adolescents and level of satisfaction with abortion services.

Variables	N	Satisfaction with health service		
		Not satisfied, *n* (%)	Satisfied, *n* (%)	χ^2; *p*-value
	254	60 (23.62)	194 (76.38)	
Age in completed years				
15	18	5 (27.78)	13 (72.22)	8.15; .086
16	32	8 (25.00)	24 (75.00)	
17	68	16 (23.53)	52 (76.47)	
18	66	22 (33.33)	44 (66.67)	
19	70	9 (12.86)	61 (87.14)	
Number of siblings				
<3	49	9 (18.37)	40 (81.63)	1.42; .490
3–5	183	47 (25.68)	136 (74.32)	
6–10	21	4 (19.05)	17 (80.95)	
Person staying with				
Both parents	110	26 (23.64)	84 (76.36)	2.28; .320
Single parent	74	21 (28.38)	53 (71.62)	
Others guardians	68	12 (17.65)	56 (82.35)	
Religion				
Christianity	217	55 (25.35)	162 (74.65)	2.45; .120
Islam	37	5 (13.51)	32 (86.49)	
Highest education				
No education	15	4 (26.67)	11 (73.33)	0.92; .920
Primary	18	4 (22.22)	14 (77.78)	
JHS	91	21 (23.08)	70 (76.92)	
SHS	111	28 (25.23)	83 (74.77)	
Tertiary	19	3 (15.79)	16 (84.21)	
Age at first menstruation (years)				
10–11	109	22 (20.18)	87 (79.82)	1.32; .250
12–13	140	37 (26.43)	103 (73.57)	
14–15	5	2 (40.00)	3 (60.00)	
Mutual intimate partner				
Yes	186	34 (18.28)	152 (81.72)	**10.44; .001**
No	66	25 (37.88)	41 (62.12)	
Socio-economic status				
High SES	50	14 (28.0)	36 (72.00)	0.67; .715
Middle SES	90	20 (22.22)	70 (77.78)	
Low SES	114	26 (22.81)	88 (77.19)	
Person responsible for pregnancy				
Boyfriend/Husband	188	37 (19.68)	151 (80.32)	**7.91; .019**
Family member	24	10 (41.67)	14 (58.33)	
Schoolmate/neighbour	39	13 (33.33)	26 (66.67)	
Number of pregnancies				
One	182	44 (24.18)	138 (75.82)	0.11; .740
Two/Three	72	16 (22.22)	56 (77.78)	
Number of abortions				
One	208	48 (23.08)	160 (76.92)	0.19; .660
Two/Three	46	12 (26.09)	34 (73.91)	

(Continues)

TABLE 4 (Continued)

Variables	N	Satisfaction with health service		
		Not satisfied, *n* (%)	Satisfied, *n* (%)	χ^2; *p*-value
Gestational age of pregnancy at termination (weeks)				
6–7	77	11 (14.29)	66 (85.71)	**11.49; .022**
8–9	75	15 (20.00)	60 (80.00)	
10–11	46	14 (30.43)	32 (69.57)	
12–13	43	17 (39.53)	26 (60.47)	
14–16	13	3 (23.08)	10 (76.92)	
Who influenced decision to abort				
Self	74	11 (14.86)	63 (85.14)	6.53; .089
Partner	110	26 (23.64)	84 (76.36)	
Parent	50	16 (32.00)	34 (68.00)	
Others	20	7 (35.00)	13 (65.00)	
Past abortion history				
Yes	78	27 (34.62)	51 (65.38)	**7.00; .008**
No	172	33 (19.19)	139 (80.81)	
Perceived adequacy of staff				
Understaffed	125	45 (36.00)	80 (64.00)	**20.90; .001**
Adequate staff	129	15 (11.63)	114 (88.37)	
Perceived affordability of abortion service				
Expensive	208	56 (26.92)	152 (73.08)	**6.94; .008**
Affordable/Okay	46	4 (8.70)	42 (91.30)	
Place procedure started				
Home	132	41 (31.06)	91 (68.94)	**8.43; .004**
RH centre	122	19 (15.57)	103 (84.43)	

Note: *N*, frequency; %, row percentage. χ^2: Pearson's chi-square. *p*-value.

The bold figures shows that the seven independent variables (i.e. had a mutual intimate partner, person responsible for pregnancy, gestational age of pregnancy, have past abortion history, perceived adequacy of staff at the centre, affordability of cost of service and place where the procedure started) were statistically associated with satisfaction with abortion service, adolesents with the above characteristics are more likely to be satisfied with abortion services they received

they received at a health facility. This is consistent with the study of Demtsu et al. (2014), which also found out in their study that respondents were satisfied with some services but were not satisfied with others.

Out of the 11 reproductive health centres, respondents who sought service from eight of the reproductive health centres were satisfied with the services they received. Respondents in all the centres were satisfied with the location of the reproductive health centres and the provision of privacy at the centres as well as the waiting time. Other areas where the respondents showed satisfaction were waiting space and availability of drugs for medical abortion. This is different from previous studies where it was reported that, in relation to organization of the healthcare system, adolescents were not satisfied with the location of the clinic, waiting time of clinic, working hours of clinic and inaccessibility of laboratory services (e.g. Fekadu et al., 2011; Kitila & Yadassa, 2016). Perhaps, the RH centres in Greater Accra have been strategically located to promote privacy due to the sensitive nature of the services they provide. It is not strange that in this study, adolescents were satisfied since the staff at the reproductive health centres have been trained to render comprehensive abortion care to women, including adolescents, which may explain why they were able to meet the expectations of the adolescents. Again, the adolescents in this study were having abortion for the first time, therefore less informed in CAC services and perhaps have no basis for comparison. They were satisfied because the main reason why they visited the reproductive health centres was to have their pregnancies terminated and that was achieved therefore will not make farther comments since they came for the service clandestinely.

This notwithstanding, there were areas where the adolescents had low satisfaction. These include the ability of the midwives to reassure and educate them on the side effects on medications for medical abortion. The adolescents who visited the RH centres were anxious about their condition. A good rapport and assurance from the midwives that they were in competent hands could have allayed their fears and anxiety, during the abortion procedure. This reassurance could enable most of the adolescents to continue with the medical abortion they opted in the beginning but such

TABLE 5 Logistic regression models of factors influencing satisfaction among adolescents receiving abortion services at health facilities.

				Random effect	
				Unadjusted logistic regression model	Multilevel logistic regression model
Variables	**Total *N***	**Satisfied, *n* (%)**	**Unsatisfied**	**COR [95% CI]**	**AOR [95% CI]**
Had sexual partner					
No	66	41 (62.12)	25 (37.88)	1.00 [reference]	1.00 [reference]
Yes	186	152 (81.72)	34 (18.28)	2.73 [1.46–5.07]**	4.02 [1.09–14.84]*
Person responsible for pregnancy					
Boyfriend/husband	188	151 (80.32)	37 (19.68)	1.00 [reference]	1.00 [reference]
Family member	24	14 (58.33)	10 (41.67)	0.34 [0.14–0.83]*	1.23 [0.26–5.92]
Schoolmate/neighbour	39	26 (66.67)	13 (33.33)	0.49 [0.23–1.04]	2.65 [0.58–11.99]
Gestational age of pregnancy at termination (weeks)					
6–7	77	66 (85.71)	11 (14.29)	1.00 [reference]	1.00 [reference]
8–9	75	60 (80.00)	15 (20.00)	0.17 [0.05–0.56]**	0.25 [0.03–1.92]
10–11	46	32 (69.57)	14 (30.43)	0.36 [0.10–1.33]	0.27 [0.04–2.05]
12–13	43	26 (60.47)	17 (39.53)	0.34 [0.13–0.93]*	0.28 [0.07–1.23]
14–16	13	10 (76.92)	3 (23.08)	0.14 [0.03–0.68]*	0.05 [0.00–1.19]
Previous had an abortion					
No	78	51 (65.38)	27 (34.62)	1.00 [reference]	1.00 [reference]
Yes	172	139 (80.81)	33 (19.19)	0.45 [0.25–0.83]*	0.58 [0.21–1.60]
Perceived adequacy of staff					
Understaff	125	80 (64.00)	45 (36.00)	1.00 [reference]	1.00 [reference]
Adequate staff	129	114 (88.37)	15 (11.63)	4.28 [2.23–8.19]***	2.84 [1.09–7.39]*
Perceived affordability of abortion service					
Expensive	208	152 (73.08)	56 (26.92)	1.00 [reference]	1.00 [reference]
Affordable/okay	46	42 (91.30	4 (8.70)	3.87 [1.33–11.28]*	1.59 [0.40–6.33]
Place procedure started					
Home	132	91 (68.94)	41 (31.06)	1.00 [reference]	1.00[reference]
RH centre	122	103 (84.43)	19 (15.57)	4.89 [2.37–10.08]***	1.96[0.30–12.62]
Model summary				230.96	216.62
AIC				286.72	275.86
BIC				0.823 [0.760–0.887]	0.884 [0.832–0.936]
AUROC [95% CI]					$p = .002$
p-value (area [logistic] vs. area [multilevel])					$p < .001$
p-value (likelihood-ratio test of variance of multilevel vs. logistic)					

Abbreviations: AIC, Akaike information criteria; AOR, adjusted odds ratio; AUROC, area under the receiver operating characteristics; BIC, Bayesian information criteria; CI, confidence interval; COR, crude odds ratio.

*$p < .05$; **$p < .01$; ***$p < .001$.

assurances and confidence in the health workers did not occur in majority of the RH centres, hence all the adolescent who started with medical abortion ended up with ether MVA or EOU. The participants could suffer psychological trauma as a result of the attitude of the midwives. This is consistent with other studies which found that adolescents are more likely to experience low satisfaction with abortion service due to long waiting time to obtain the services, negative client–provider relationship, high cost of service, access and availability of materials, drugs and range of services (Demtsu et al., 2014).

Most of the respondents in this study had completed senior high school and were young; however, they were satisfied with the overall services received. This is contrary to the study of Fekadu et al. (2011) which revealed in their study that overall satisfaction of

services received by clients was higher in less educated or illiterate and older people. This indicates that the higher the educational level of the individual, the more subjective the client will be in rating a service, but it is not always the case in adolescents. The age of the respondents did not make any difference, both adolescent and the older clients (20–40 years) were all satisfied with the abortion care they received, provided their pregnancies have been terminated which was the expectation of both the young in this study and adult in other studies.

6.3 | Factors associated with satisfaction with abortion care

In this study, the factors associated with the level of satisfaction with abortion care the adolescents received were having a mutual intimate partner and perceived adequacy of health providers at the centre. This is contrary to what was found in literature when all women in their reproductive age (15–49 years) were studied together. Background characteristics such as age, level of education and marital status were some of the factors that were found in the literature to be associated with satisfaction with abortion care (Chae et al., 2017; Tilles et al., 2016). Perhaps, adolescents being unique group have their own preference and hence identified different factors associated with adolescent satisfaction with abortion care. This calls for studying adolescents as a unique group with their own preference in terms reproductive health. Depending on the choice of centre the adolescents accessed, they received competent care from the midwives that led to the satisfaction of the respondents. Having a mutual intimate partner as an adolescent could put the respondents in a better position to cope with the stress of abortion than those without mutual intimate partners. This put them in a better position to appreciate the fact that being in mutual intimate relationship puts the adolescent in a risk of getting pregnant. If this happens, the adolescent will have to suffer the consequences thereof.

In general, adolescents are often not financially empowered. Therefore considering the cost of an abortion as affordable meant the adolescents had value for their money. This was different from other studies which reported factors such as the educational level of the client, age, past experience, the choice of facility and how the condition was managed as factors associated with satisfaction with the abortion services the clients sought (e.g. Wu et al., 2015). This current study focused on only adolescents. Perhaps the results could have been different if women in general had been studied. This shows that when adolescents are separated from others in the reproductive age (20–49 years), their needs and expectations are different which calls for a more vibrant adolescent reproductive health service in Ghana.

In the same way, respondents in this study who perceived that there were adequate healthcare providers at the centres were satisfied with the service. This reveals that adolescent want to have their privacy during abortion and the exposure to just a provider was adequate, and even though they had to wait for a longer time to be attended to, they were satisfied with the abortion services received. Consistent with this study is a study by Sully et al. (2018) indicating that adolescents often prefer clandestine abortion due to stigmatization from midwives and other cadre of health workers and therefore seek comprehensive abortion care service where only one person will attend to them. Although abortion is the right of women including adolescent girls, it is not accepted in the Ghanaian society leading to adolescents seeking abortion service always found themselves in a dilemma.

6.4 | Strengths and limitations of this study

Generating information on abortion is usually challenging, especially when dealing with adolescents as they consider it a private issue and the research may tag them as bad people. However, this study has been able to provide empirical evidence on the adolescents seeking abortion and how satisfied they were with the care they received.

Notwithstanding the strengths, a number of limitations ought to be noted carefully in interpreting the findings. The study sites were limited to the urban Region of Ghana, and therefore, there is the likelihood that the views in this study may vary from those of adolescents seeking the same services from other regions, particularly in rural areas of the country. Also, most of the adolescents who participated in the study had secondary education and were staying with at least one parent. Therefore, the findings cannot be generalized to illiterate adolescents or emancipated adolescents living on the streets.

6.5 | Recommendations for future research

1. Future research should replicate this study in other regions of the country, using rural illiterate adolescents or emancipated adolescents living in the streets.
2. Future research should also explore the quality of life after abortion among adolescents. Such a study could inform empirical and innovative strategies to mitigate the negative impact of abortion.
3. Also, future studies should explore the impact of abortion stigma on adolescents and their families from the adolescents' perspectives to plan coping strategies to support adolescents who undergo abortion.

7 | CONCLUSIONS

The findings suggest that adolescents were satisfied with some elements of the abortion care received. This notwithstanding, they were less satisfied with elements such as the inability of the midwives to reassure and educate them on the side effects

of medications for medical abortion. As low- and middle-income countries intensify efforts to improve access to and use of comprehensive abortion care in other to reduce unsafe abortion among adolescents, midwives have the responsibility of meeting the expectations of adolescent who visit RH centres for CAC services. It is important that the midwives treat adolescents with respect and dignity as well as supporting them psychologically when accessing abortion care. It is also essential for adolescents to understand and exercise their reproductive rights to comprehensive sexual and reproductive health care, which is likely to reduce maternal mortality in many low- and middle-income countries, while improving adolescent mental health.

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CONFLICT OF INTEREST STATEMENT

The authors declare that they have no conflict of interests.

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DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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