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SUPPLEMENT ARTICLE

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Adolescents' satisfaction with care for abortion-related complications in 11 Sub-Saharan African countries: A cross-sectional facility-based study

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Abstract

Objective: To assess satisfaction with care for abortion-related complications experienced among adolescents compared to older women.

Methods: A secondary analysis of the WHO Multi-Country Survey on Abortion-related Morbidity and Mortality—a cross-sectional study conducted in health facilities in 11 Sub-Saharan African countries. Women with abortion-related complications who participated in an audio computer-assisted self-interview were included. Two composite measures of overall satisfaction were created based on five questions: (1) study participants who were either satisfied or very satisfied across all five questions; and (2) study participants who reported being very satisfied only across all five

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questions. Multivariable general estimating equation analyses were conducted to assess whether there was any evidence that age (adolescents 12–19 years and older women 20+) was associated with each composite measure of satisfaction, controlling for key confounders.

Results: The study sample consisted of 2817 women (15% adolescents). Over 75% of participants reported being satisfied or very satisfied for four out of five questions. Overall, 52.9% of study participants reported being satisfied/very satisfied across all five questions and 22.4% reported being consistently very satisfied. Multivariable analyses showed no evidence of an association between age group and being either satisfied or very satisfied (OR 1.07; 95% CI, 0.82–1.41, $P = 0.60$), but showed strong evidence that adolescents were 50% more likely to be consistently very satisfied with their overall care than older women (OR 1.49; 95% CI, 1.13–1.96, $P = 0.005$).

Conclusion: Both adolescents and older women reported high levels of satisfaction with care when looking at different components of care individually, but the results of the composite measure for satisfaction showed that many study participants reported being less than satisfied with at least one element of their care. Further studies to explore the expectations, needs, and values of women's satisfaction with care for abortion-related complications are needed.

KEYWORDS
adolescents, cross-sectional study, patient satisfaction, postabortion care, Sub-Saharan Africa

1 | INTRODUCTION

In 2012, approximately seven million women in low-and middle-income countries received treatment for abortion-related complications as a result of unsafe abortion.[1] It has been estimated that of 49% unintended pregnancies occurring in adolescents in low-resource regions, about half result in abortions, many of which are unsafe and may result in morbidity and mortality.[2] At the 25th anniversary of the International Conference on Population and Development (ICPD), adolescent sexual and reproductive health, including abortion care, has been placed fully on numerous global, regional, and national agendas.[3]

In Sub-Saharan Africa, a range of factors can prevent women from receiving quality postabortion care (PAC) services, some of which are likely to disproportionally affect adolescents. Studies have shown that young and unmarried women are more likely to face provider stigma and mistreatment.[4–6] In Kenya, Izugbara et al.[5] undertook in-depth interviews and focus group discussions with 152 PAC providers; the majority of providers treated young and unmarried PAC patients poorly because of the stigma associated with premarital pregnancy at such a young age. Many providers also reported risk of being stigmatized by colleagues if caught treating adolescent PAC patients politely.[5] In Ghana, Tagoe-Darko et al.[6] conducted a qualitative study among women who had been treated for postabortion complications in a large referral hospital to assess how stigma influenced the quality of PAC. They found that unmarried and young PAC patients were more susceptible to provider stigma and mistreatment than older, married women.[6] Additionally, adolescent-friendly PAC services have been found to be rare in Sub-Saharan Africa.[4,6,7] Recent data from the World Health Organization (WHO) Multi-Country Survey on Abortion (MCS-A) across Sub-Saharan Africa found no evidence that the severity of complications in adolescents attending facilities with abortion-related complications was more severe when compared with older women (aged ≥30 years); however, differences in experience of care and, specifically, satisfaction with care between adolescents and older women were not reported.[8]

It is important to robustly evaluate adolescents' satisfaction with the quality of their PAC to identify the associated gaps and interventions to fill those gaps. Person-centered quality of care can be measured by: (1) patient experience; and (2) patient satisfaction.[9] A patient's experience can be categorized by three areas: effective communication, respect and dignity, and emotional support.[9] These areas may be affected by facility/patient characteristics and the type of service.[9] Patient satisfaction is an outcome measure of experience of care. Satisfaction is dependent on a patient's evaluation of care received and expectations of care, needs, and values, which may also be informed by facility characteristics, individual characteristics, and type of service.[9] Expectations of good quality of abortion-related care

may be hindered due to stigma and restrictive laws and policies.[9] Despite the importance of measuring satisfaction with care, there is a paucity of studies looking at adolescent satisfaction with PAC compared to older women in Sub-Saharan Africa. One study, conducted by Evens et al.,[10] found no evidence of a difference in satisfaction between younger women (15–24 years) and older women (older than 24 years) seeking care for postabortion complications in Kenya. However, this study only included providers and patients from facilities that had just received training on the provision of adolescent-friendly services.

Given the existing evidence to suggest that adolescents may receive poor quality of care for abortion-related complication in Sub-Saharan Africa, we hypothesized that adolescents would be less likely to be satisfied with the care that they received. Using data from the WHO MCS-A,[8] the present paper assesses whether adolescents seeking care for abortion-related complications have lower satisfaction with the care they received compared to older women across Sub-Saharan Africa.

2 | MATERIALS AND METHODS

Data for the present study come from the WHO MCS-A,[8] a large cross-sectional study of women who presented at health facilities with signs and symptoms of abortion-related complications in countries across Latin America and Africa. The WHO MCS-A assessed the frequency, severity, management of, and conditions that led to abortion-related complications in selected health facilities and captured women's experience of care.

A detailed description of this study is provided elsewhere.[11] In brief, multistage sampling was used to first select the countries and then to select the facilities for inclusion in the study. Inclusion criteria for facilities were those that had more than 1000 deliveries per year and the capability to provide comprehensive emergency obstetric care. Both public and private facilities were eligible for inclusion. Ultimately, 11 Sub-Saharan African countries were selected for inclusion, and are included in the present analysis: Benin, Burkina Faso, Democratic Republic of Congo (DRC), Ghana, Kenya, Mozambique, Malawi, Niger, Nigeria, Chad, and Uganda. A health facility assessment was conducted in each of the selected facilities ($n = 210$), collecting critical information on the availability and quality of abortion services offered by each facility.

Between July 2017 and February 2018, women who attended any of the selected study facilities with abortion-related complications were eligible for inclusion in the study. Data on eligible women were collected from two sources: (1) extraction of data from medical records; and (2) an exit survey with women using audio computer-assisted self-interviews (ACASI). Medical record data were collected by research assistants. A subsample of women who had their medical record data collected were eligible for inclusion in the ACASI exit survey. To be eligible, women had to be admitted for abortion-related complications or had to have stayed in the facility for 24 h or more, to be deemed able to participate in the survey, and provide consent to participate. The ACASI exit survey was self-administered, in the participant's native language, on a computer, and in a private location to emphasize patient confidentiality. Before administration, the ACASI exit survey was translated into the local language, back translated, pretested, and then validated. It measured each participant's standard of living, abortion safety, and experience of care. The analysis for the present paper was restricted to women who had ACASI data available.

Every PAC provider was trained as per standardized in-country guidelines and participants were informed to report to the same facility if they felt unwell or they wanted to seek further advice regarding the care that they had received. If there was an abortion-related complication that could not be handled at the facility, referral pathways were in place to a higher level of care institution.

The exposure for the present analysis was age group, which was collected from medical records. Adolescents were classified as those aged 19 years or younger, while older women were those aged 20 years and older. The outcome for the present analysis was satisfaction with care, which was created from five satisfaction questions in the ACASI exit survey. The questions explored satisfaction with services received, level of privacy during the examination and treatment, time taken to see a healthcare provider in the facility, amount paid for services, and health information received from healthcare providers.

The questions were answered on a five-point Likert scale (very dissatisfied, dissatisfied, neutral, satisfied, very satisfied). A composite measure of satisfaction was created, with study participants who reported being “very satisfied” or “satisfied” across all five satisfaction questions classified as satisfied with their care. The second composite measure of satisfaction was study participants who reported being “very satisfied” only with care across all five questions.

Potential confounders and effect modifiers of the association between age and satisfaction with care for abortion-related complications were identified based on the literature.[9] These variables have been categorized into sociodemographic factors (socioeconomic status, education level, gainful occupation, marital status), obstetric factors (gravidity, severity of complication, previous abortion status, type of abortion), and facility characteristics (facility level, facility location). Socioeconomic status was created from four questions from the ACASI exit survey. The four questions asked the woman: whether she has running water in her home; whether her household income allowed her to take care of all of her personal needs such as food and health during the past month; whether members of her household have been able to save money during the past month, after taking care of all household expenses; and whether she has had to go for a full day without a meal during the past month because of lack of food and inability to buy food in her household. A score was created for each woman, with a total of four indicating the highest socioeconomic status and zero the lowest. Those with scores of zero or one were categorized as low socioeconomic status, those with two or three were categorized as middle socioeconomic status, and those with scores of four were categorized as high socioeconomic status.

All analyses were conducted using Stata/IC version 16.1 (StataCorp LLC). Descriptive analyses were conducted to assess missing data, and to determine the distribution of the study sample by key characteristics. We used generalized estimating equations, accounting for clustering in facilities, to explore the association between age group and satisfaction. Our first model looked at the association between age group and satisfaction, adjusting for country which was included as an a priori confounder. Subsequently, each potential confounder was placed individually in the first model. Potential confounders that had a substantial impact (odds ratio changed by 10%) on the association between age and satisfaction were included in the final model as confounders. We assessed whether there was any evidence that the adjusted association between age and satisfaction varied by any of four potential effect modifiers that were identified a priori: level of facility (primary, secondary, tertiary, other referral levels), severity of complications (severe, moderate/mild), self-reported type of abortion (spontaneous, induced), and marital status (not married, married). The modelling process was undertaken twice, once for each of the two different definitions of satisfaction described above. Finally, we conducted a sensitivity analysis, rerunning our final multivariable model using a more detailed categorization of age (≤15, 16–17, 18–19, and 20+ years).

This study was approved by the WHO Ethical Review Committee (protocol: 0002699) and the WHO Human Reproduction Programme (HRP) Review Panel on Research Projects. This study was also approved by in-country ethical committees and the secondary data analysis was approved by the London School of Hygiene and Tropical Medicine (reference: 22024).

3 | RESULTS

Figure 1 shows the selection of study participants in the present analysis. From the 15 671 study participants in all 210 participating facilities, 13 657 presented with abortion-related complications. Based on the inclusion criteria and available data on admission and discharge rates, 65.6% (8931/13614) of the study participants with abortion-related complications were eligible for the ACASI exit survey, of which 3091 (34.6%) participated in the survey. After excluding those with missing data, there were 2817 study participants. The mean age of the study participants was 27 ± 7.0 years (range, 12–50 years). Adolescents made up 15.4% of the sample (n = 435), while older women made up 84.6% of the sample (n = 2382). Table 1 shows the key characteristics of the study population, stratified by age group.

Overall, 32.0% (n = 900) of study participants reported being satisfied and an additional 53.6% (n = 1511) reported being very satisfied with services received; 34.0% (n = 959) were satisfied and 51.0% (n = 1436) were very satisfied with privacy during exam and treatment; 31.4% (n = 883) were satisfied and 46.8% (n = 1317) were very satisfied with time awaited to see a healthcare provider in the facility; 31.3% (n=882) were satisfied and 38.1% (n = 1074) were very satisfied with amount paid for services; and 33.6% (n = 946) were satisfied and 52.4% (n = 1476) were very satisfied with health information received from the healthcare providers. Table 2 shows the percentage of those who responded being very dissatisfied, dissatisfied, neutral, satisfied, and very satisfied with their care for each of the five domains of satisfaction by age group.

When we categorized the study participants who reported being consistently satisfied or very satisfied across all five questions as satisfied, we found that 52.9% (n = 1490) were satisfied with their care (95% CI, 49.2–56.5). The percentage of those satisfied with care they received was the same for both adolescents and older women at 52.6%

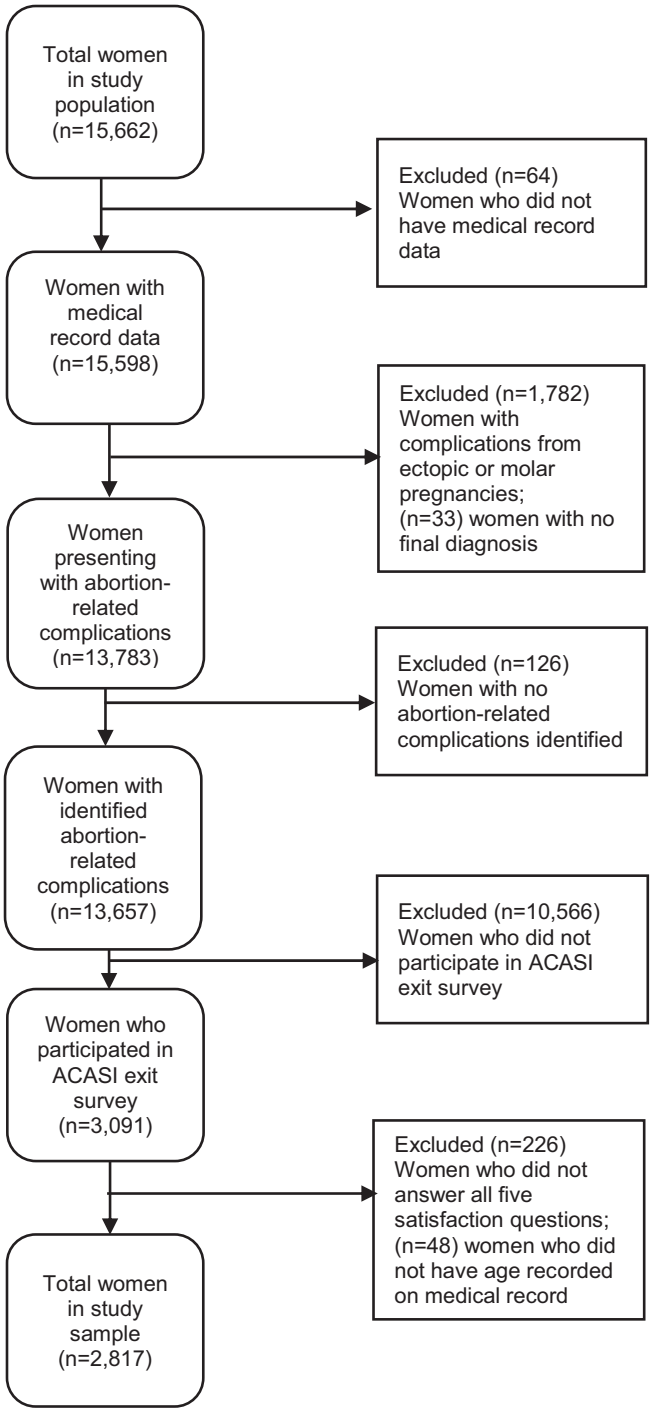

FIGURE 1 Flowchart for study sample selection

TABLE 1 Characteristics of women in sample stratified by age group (n = 2817)

Variables	Category	Total in category, No. (%)	Adolescents (n = 435), No. (%)	Older women (n = 2382), No. (%)
Socioeconomic status (SES) (n = 2809)	Low SES	741 (26.4)	97 (22.5)	644 (27.1)
	Medium SES	1601 (57.0)	259 (60.0)	1342 (56.5)
	High SES	467 (16.6)	76 (17.6)	391 (16.5)
Education level (n = 2405)	No education	324 (13.5)	43 (11.4)	281 (13.9)
	Some or complete primary education	688 (28.6)	125 (33.2)	563 (27.8)
	Some or complete secondary education	981 (40.8)	194 (51.6)	787 (38.8)
	Higher than secondary education	412 (17.1)	14 (3.7)	398 (19.6)
Gainful occupation (n = 2547)	No	1300 (51.0)	319 (83.1)	981 (45.4)
	Yes	1247 (49.0)	65 (16.9)	1182 (54.7)
Marital status (n = 2720)	Not married	669 (24.6)	230 (55.8)	439 (19.0)
	Married	2051 (75.4)	182 (44.2)	1869 (81.0)
Number of pregnancies (gravidity) (n = 2762)	1	749 (27.1)	330 (78.4)	419 (17.9)
	2+	2013 (72.9)	91 (21.6)	1922 (82.1)
Severity of complication (n = 2817)	Severe	382 (13.6)	62 (14.3)	320 (13.4)
	Moderate/mild	2,435 (86.4)	373 (85.8)	2,062 (86.6)
Previous abortion (n = 2816)	No	1722 (61.2)	292 (67.1)	1430 (60.1)
	Yes	1094 (38.9)	143 (32.9)	951 (39.9)
Self-reported type of abortion (n = 2811)	Spontaneous	2238 (79.6)	304 (69.9)	1934 (81.4)
	Induced	573 (20.4)	131 (30.1)	442 (18.6)
Level of facility (n = 2817)	Primary	325 (11.5)	52 (12.0)	273 (11.5)
	Secondary	1582 (56.2)	266 (61.2)	1316 (55.3)
	Tertiary	910 (32.3)	117 (26.9)	793 (33.3)
Facility location (n = 2817)	Urban	2149 (76.3)	309 (71.0)	1840 (77.3)
	Peri-urban	408 (14.5)	80 (18.4)	328 (13.8)
	Rural	260 (9.3)	46 (10.6)	214 (9.0)

(n = 229) (95% CI, 46.2–59.0) and 52.9% (n = 1261) (95% CI, 49.4–56.5), respectively (Table 3). Twenty-two percent (n = 631) of the study participants reported being consistently very satisfied with care across all five satisfaction questions (95% CI, 19.5–25.6). This percentage was 21.9% (n = 522) for older women (95% CI, 19.2–24.9), but slightly higher for adolescents at 25.1% (n = 109) (95% CI, 19.4–31.7). Table S1 shows overall satisfaction with care in each country stratified by age group.

After adjusting for country, we found that adolescents were 13% less likely to be consistently satisfied/very satisfied with care compared with older women, although there was no evidence against the null hypothesis of no association between age group and satisfaction (OR 0.87; 95% CI, 0.70–1.09, P = 0.23). Gravidity and marital status were identified as confounders of the association. After controlling for gravidity, marital status, and country we found that adolescents were 7% more likely to be consistently satisfied/very satisfied with care compared with older women, although there was no evidence against the null hypothesis of no association between age group and overall satisfaction (OR 1.07; 95% CI, 0.82–1.41, P = 0.60) (Table 3).

When adjusting for country only, there was no evidence for an association between age group and being consistently very satisfied with care (OR 1.07; 95% CI, 0.84–1.36, P = 0.57). After adjusting for gravidity, marital status, and country, adolescents were 50% more likely to be very satisfied with their overall care compared with older women (OR 1.49; 95% CI, 1.13–1.96, P = 0.005) (Table 3).

There was no evidence that the adjusted association between age group and being satisfied/very satisfied varied by complication severity (P = 0.59), type of abortion (P = 0.20), marital status (P = 0.60), or facility level (P = 0.39). When looking at the outcome defined as study participants consistently very satisfied with care, there was no evidence that the association between age and satisfaction varied by any of the potential effect modifiers: complication severity (P = 0.66), type of abortion (P = 0.55), marital status (P = 0.42), or facility level (P = 0.07). Table S2 shows our final models using the more detailed breakdown of age. Using this different categorization of age does not change our conclusions. When compared with older adults, the youngest adolescents (12–15 years) were 11% more likely to consistently report being very satisfied (95% CI, 0.36–3.41) but the finding is not statistically significant, while adolescents aged 17–18 years were 50% more likely to report being consistently very satisfied (95% CI, 1.11–2.02).

TABLE 2 Distribution of those who answered very dissatisfied, dissatisfied, neutral, satisfied, and very satisfied for each question on satisfaction with care, by age group (n = 2817)

Question	Age category	Very dissatisfied		Dissatisfied		Neutral		Satisfied		Very satisfied	
		No.	% (95% CI)	No.	% (95% CI)	No.	% (95% CI)	No.	% (95% CI)	No.	% (95% CI)
How satisfied are you with the services you received in the facility?	Older women	58	2.4 (1.7–3.4)	74	3.1 (2.2–4.4)	216	9.1 (7.6–10.8)	771	32.4 (29.6–35.3)	1263	53.0 (49.1–56.9)
	Adolescents	12	2.8 (1.5–5.1)	12	2.8 (1.5–5.1)	34	7.8 (5.1–11.8)	129	29.7 (24.6–35.2)	248	57.0 (49.1–64.6)
How satisfied are you with the level of privacy during exam and treatment?	Older women	39	1.6 (1.2–2.3)	87	3.7 (2.6–5.1)	234	9.8 (8.4–11.5)	816	34.3 (31.6–37.0)	1,206	50.6 (47.1–54.2)
	Adolescents	12	2.8 (1.4–5.3)	14	3.2 (1.7–6.1)	36	8.3 (5.7–11.8)	143	32.9 (26.6–39.8)	230	52.9 (46.0–59.8)
How satisfied are you with the time awaited to see a healthcare provider in the facility?	Older women	71	3.0 (2.2–4.1)	201	8.4 (6.9–10.2)	257	10.8 (9.3–12.4)	752	31.6 (29.0–34.2)	1101	46.2 (42.5–49.9)
	Adolescents	17	3.9 (2.4–6.4)	24	5.5 (3.4–8.9)	47	10.8 (7.6–15.1)	131	30.1 (25.2–35.5)	216	49.7 (42.8–56.5)
How satisfied are you with the amount you paid "out of pocket" for services you received?	Older women	112	4.7 (3.6–6.2)	214	9.0 (7.3–11.0)	394	16.5 (14.6–18.7)	771	32.4 (29.8–35.1)	891	37.4 (34.0–40.9)
	Adolescents	26	6.0 (3.9–9.1)	44	10.1 (6.9–14.5)	71	16.3 (11.9–22.0)	111	25.5 (20.9–30.7)	183	42.1 (35.9–48.5)
How satisfied are you with health information you received from the healthcare providers?	Older women	48	2.0 (1.3–3.2)	89	3.7 (2.8–5.0)	203	8.5 (7.1–10.2)	814	34.2 (31.2–37.3)	1,228	51.6 (47.8–55.3)
	Adolescents	6	1.4 (0.6–3.1)	18	4.1 (2.3–7.3)	31	7.1 (4.9–10.3)	132	30.3 (24.9–36.4)	248	57.0 (49.5–64.2)

4 | DISCUSSION

Overall, over half (52.9%) of adolescents reported being consistently either satisfied or very satisfied with care, similar to older women (aged 20+) in the sample (52.6%). We found no evidence of an association between age group and satisfaction with care, after adjusting for marital status and gravidity (P = 0.60). However, we did find strong evidence for an association between age group and being consistently very satisfied with care (P = 0.005). Adolescents were nearly 50% more likely to be very satisfied with their overall care than older women.

In this study, the majority of both adolescents and older women reported relatively high levels of satisfaction when looking at each question relating to satisfaction (>75% were either satisfied or very satisfied) for all questions, with the exception of amount paid "out of pocket" for services where 69.4% of study participants reported being satisfied or very satisfied; however, it was clear that study participants were less than satisfied with at least one aspect of care, as captured in our composite measure. These findings are consistent with studies that show satisfaction with care tends to be high in low- and middle-income countries (LMICs).[12] One quantitative study conducted in two Guinean health facilities reported that out of 426 patients, 92.5% of study participants were satisfied with their PAC. In that study, the researchers observed the care provided to the woman, possibly raising the quality of clinical care provided and leading to higher levels of satisfaction.[13] Another study in Tanzania showed moderately high levels of satisfaction with care among 412 women that presented to 25 facilities for abortion-related complications.[14] The survey included questions on satisfaction with client–staff interaction, counseling, provider competence, postabortion family planning, accessibility of care, and the facility environment. The authors also conducted in-depth interviews with 30 of these participants. They found that although women reported being satisfied with most domains in the survey, when interviewed qualitatively women expressed dissatisfaction with several aspects of their care.[14] A qualitative study assessing patients' satisfaction with care in Ghana reported that more than three-quarters of women in a facility reported being satisfied with care because of provider treatment and because symptoms of the complications had stopped.[15]

Adolescents may have been more likely to be very satisfied with care because of their expectations. In the present study, we found that adolescents were more likely to report having an induced abortion and less likely to have an occupation, which might have made them more vulnerable to stigma and also more likely to delay seeking care because of perceived stigma. Studies show that perceived stigma impacts PAC-seeking behavior and expectations among adolescents and young women.[2,6,7] Leaving the facility healthy, alive, and without pregnancy may have increased their satisfaction, regardless of their treatment, privacy, or the information received, after their previous, more vulnerable state. It is also possible that these results are driven by differences in reporting of satisfaction between adolescents and older women. Study participants reported their satisfaction using Likert scales, and it is plausible that adolescents report differently using these compared with older women.

TABLE 3 Association between age and satisfaction, stratified by definition used for composite measure of satisfaction (n = 2705)

	Satisfied or very satisfied			Very satisfied only		
Age group	No. (%)	Adjusted OR (95% CI)[a]	*P* value[a]	No. (%)	Adjusted OR (95% CI)[a]	*P* value[a]
Older women	1261 (52.9)	1		522 (21.9)	1	
Adolescents	229 (52.6)	1.07 (0.82–1.41)	0.60	109 (25.1)	1.49 (1.13–1.96)	0.005

[a]Adjusted for country, gravidity, and marital status.

Indeed, a survey development guide for adolescents stated that young adolescents may have issues with reporting information using Likert scales as their brains are still developing.[16] However, the adolescents included in our study were on average older than the age group considered in the guide of survey development.

Measuring satisfaction with care is widely recognized to be challenging because of its subjectivity,[9] and in the present study we were limited to only five questions. It is plausible that we did not capture all the relevant areas of care for abortion-related complications that would discriminate between the satisfaction between age groups. In our composite measures, we weighted each component of satisfaction equally and it is possible that women would place greater importance on some of the measures of satisfaction over others. Larson et al.[9] outlined difficulties in measuring satisfaction with care using quantitative measures as they may not capture the varying expectations of care within the sample. Qualitative measures, such as in-depth interviews and focus groups, help researchers to better understand expectations, values, and needs of individual patients in a particular context as exemplified in a study analyzing satisfaction with care for abortion-related complications.[9] These measures are especially relevant for adolescents, as their expectations, values, and needs are more unique, exhibiting the need for adolescent-friendly services. Additionally, when Scott et al.[17] conducted qualitative interviews to understand how respondents understood a quantitative survey, they found that pregnant and postpartum women in this context did not comprehend the use of Likert scales and the survey questions the way the researchers had intended.

By pooling data across 11 different countries in Sub-Saharan Africa, we had sufficient power to explore adolescents' satisfaction with their care for abortion-related complications. However, the analysis may have masked important country differences that could arise due to varying cultures, health systems, and sexual and reproductive health policy. Women in these countries may have different levels of expectation, values, and needs, which may lead to important differences in satisfaction with care among adolescents. Indeed, we found that the percentage of adolescents that were consistently satisfied or very satisfied varied from 35.3% in the Democratic Republic of Congo to 74.3% in Burkina Faso. Efforts were made to ensure that the questions on satisfaction had face validity and they were pretested and piloted to minimize different interpretations of the questions within the ACASI across different countries. Another possible limitation is the timing of the ACASI exit survey. Study participants could have answered differently if they took the survey a few weeks after care, giving them time to reflect on their experience.

A strength of the study is that the exit survey allows for participation by women who cannot read or write owing to the audio component. The ACASI exit survey may also reduce or eliminate interviewer bias because it is a private self-interview. Lindberg and Scott[18] found that women in the USA reported abortions, miscarriages, and births more in the ACASI than face-to-face interviews. This may explain the relatively low levels of satisfaction with care found at the composite level as women may have been more willing to express dissatisfaction because of the use of the ACASI. However, bias might have been an issue in the selection of women to participate in the ACASI. The number of women eligible for inclusion in the ACASI exit survey who participated was small (34.6%), although data published elsewhere showed that there were no differences in key sociodemographic characteristics between those who participated in the ACASI and the total study population (including in age, marital status, education, and gainful occupation).[8]

In conclusion, both adolescents and older women reported high levels of satisfaction with care when assessing each satisfaction question, but the results of our composite measure for satisfaction showed that many study participants also reported being less than satisfied with at least one element of their care. This study has shown that among both adolescents and older women, there are issues with satisfaction with care for abortion-related complications. Further study is needed to understand the relationship between quality of PAC and patient satisfaction with care. Governments and ministries of health can use information like this to work toward improving the quality of PAC for all age groups, both adolescents and older women alike.

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CONFLICTS OF INTEREST

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AUTHOR CONTRIBUTIONS

EE, LG, VF, CC, HM, and OT conceptualized the study. EE conducted the analysis, under the supervision of CC and HM. EE and LG wrote the first draft of the paper. KB, FB, RC, JD, NI, CR, AM, KM, and JW reviewed and provided critical input on the draft.

REFERENCES

1. Singh S, Maddow-Zimet I. Facility-based treatment for medical complications resulting from unsafe pregnancy termination in the developing world, 2012: a review of evidence from 26 countries. *BJOG*. 2016;123:1489-1498.
2. Woog V, Singh S, Browne A, Philbin J. *Adolescent Women's Need for and Use of Sexual and Reproductive Health Services in Developing Countries*. Guttmacher Institute; 2015.
3. Plesons M, Cole CB, Hainsworth G, et al. Forward, together: a collaborative path to comprehensive adolescent sexual and reproductive health and rights in our time. *J AdolescHealth*. 2019;65:S51-S62.
4. Izugbara C, Wekesah FM, Sebany M, Echoka E, Amo-Adjei J, Muga W. Availability, accessibility and utilization of post-abortion care in Sub-Saharan Africa: a systematic review. *Health Care Women Int*. 2020;41:732-760.
5. Izugbara CO, Egesa CP, Kabiru CW, Sidze EM. Providers, unmarried young women, and post-abortion care in Kenya. *Stud Fam Plann*. 2017;48:343-358.
6. Tagoe-Darko E. "Fear, shame and embarrassment": the stigma factor in post abortion care at Komfo Anokye Teaching Hospital, Kumasi, Ghana. *Asian Social Sci*. 2013;9(10):10.5539/ass.v9n10p134
7. Kalu CA, Umeora OU, Sunday-Adeoye I. Experiences with provision of post-abortion care in a university teaching hospital in south-east Nigeria: a five year review. *Afr J Reprod Health*. 2012;16:105-112.
8. Qureshi Z, Mehrtash H, Kouanda S, et al. Understanding abortion-related complications in health facilities: results from WHO multi-country survey on abortion (MCS-A) across 11 sub-Saharan African countries. *BMJ Global Health*. 2021;6:e003702.
9. Larson E, Sharma J, Bohren MA, Tunçalp Ö. When the patient is the expert: Measuring patient experience and satisfaction with care. *Bull World Health Organ*. 2019;97:563-569.
10. Evens E, Otieno-masaba R, Eichleay M, et al. Post-abortion care services for youth and adult clients in Kenya: a comparison of services, client satisfaction and provider attitudes. *J Biosoc Sci*. 2014;46(1):1-15.
11. Kim CR, Tunçalp Ö, Ganatra B, Gülmezoglu AM, WHO MCS-A Research Group. WHO multi-country survey on abortion-related morbidity and mortality in health facilities: study protocol. *BMJ Global Health*. 2016;1(3):e000113.
12. Kruk ME, Gage AD, Arsenault C, et al. High-quality health systems in the Sustainable Development Goals era: time for a revolution. *Lancet Glob Health*. 2018;6:e1196-e1252.
13. Millimouno T, Leno J, Sidibé S, Bah OH, Delamou A, Hyjazi Y. Assessment of post-abortion care services in two health facilities in Conakry, Guinea. *Afr J Reprod Health*. 2020;24:96-105.
14. Baynes C, Yegon E, Lusiola G, Kahando R, Ngadaya E, Kahwa J. Women's satisfaction with and perceptions of the quality of post-abortion care at public-sector facilities in Mainland Tanzania and in Zanzibar. *Glob Health Sci Pract*. 2019;7(Suppl 2):S299-S314.
15. Adde KS, Darteh EKM, Kumi-Kyereme A, Amu H. Responsiveness of health professionals to postabortion care at a regional level hospital in Ghana: a qualitative study of patients' self-reports. *Int J Reprod Med*. 2018;2018:1-7.
16. Omrani A, Wakefield-Scurr J, Smith J, Brown N. Survey development for adolescents aged 11 to 16 years: a developmental science based guide. *Adolescent Res Rev*. 2019;4:329-340.
17. Scott K, Gharai D, Sharma M, et al. Yes, no, maybe so: the importance of cognitive interviewing to enhance structured surveys on respectful maternity care in northern India. *Health Policy Plann*. 2020;35:67-77.
18. Lindberg L, Scott RH. Effect of ACASI on reporting of abortion and other pregnancy outcomes in the US National Survey of Family Growth. *Stud Fam Plann*. 2018;49:259-278.

SUPPORTING INFORMATION

Additional supporting information may be found in the online version of the article at the publisher's website.

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