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Abortion and contraceptive use stigma: a cross-sectional study of attitudes and beliefs in secondary school students in western Kenya

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ABSTRACT: *Social stigma related to women's reproductive decision-making negatively impacts the health of women. However, little is known about stigmatising attitudes and beliefs surrounding abortion and contraceptive use among adolescents. The aim of this study was to measure stigmatising attitudes and beliefs regarding abortion and contraceptive use among secondary school students in western Kenya. A self-reported classroom questionnaire-survey was administered in February 2017 to students at two suburban secondary schools in western Kenya. Two scales were used to measure the stigma surrounding abortion and contraceptive use – the Adolescent Stigmatizing Attitudes, Beliefs and Actions (ASABA) scale and the Contraceptive Use Stigma (CUS) scale. 1,369 students were eligible for the study; 1,207 (females = 618, males = 582) aged 13–21 years were included in the analysis. Descriptive statistics, Pearson's χ^2 test, and the t-test were used to analyse the data. Binary logistic regression analysis was used to calculate odds ratios (OR) and 95% confidence intervals (CI). The students reported stigma associated with abortion (53.2%), and contraceptive use (54.4%). A larger proportion of male students reported abortion stigma (57.7%) and contraceptive use stigma (58.5%), compared to female students (49.0%, $p = .003$ and 50.6%, $p = .007$, respectively). Higher scores were displayed by younger rather than older age groups. No associations were identified between sexual debut and abortion stigma ($p = .899$) or contraceptive use stigma ($p = .823$). Abortion and contraceptive use are stigmatised by students in Kenya. The results can be used to combat abortion stigma and to increase contraceptive use among adolescents in Kenya. DOI: 10.1080/26410397.2019.1652028*

Keywords: termination of pregnancy, contraception, stigma, induced abortion, Kenya, adolescents

Introduction

Adolescent pregnancy and young motherhood are major public health concerns in low- and middle-income countries (LMICs).¹ The majority of these

pregnancies are unintended (unwanted or mistimed), and are more likely to happen among poor and uneducated girls.² Adolescent pregnancy is a major contributor to adverse health outcomes

for the young woman and child.³ In Kenya, adolescents (15–19 years) constitute 24% of the population.⁴ In 2014 it was estimated that about 15% of women aged 20–49 years had their first sexual experience by the age of 15 years, and 50% had their first sexual experience by the age of 18 years.⁴ Contraceptive use among adolescents in Kenya is relatively low; only 37% of sexually active adolescent females are using a modern contraceptive method. About 23% of Kenyan adolescent girls have an unmet need for contraception, compared to the national average of 18% among all women of reproductive age.⁴ Adolescent pregnancy in Kenya remains at 18%, with an adolescent fertility rate of 96 per 1,000 women,⁴ relatively high in comparison with the global fertility rate of 44.6 per 1,000 women aged 15–19.⁵

Until 2010, the abortion law in Kenya was restrictive, with permission to terminate a pregnancy given only to save a woman's life. A revised constitution has since been adopted, and abortion is now allowed when the life or health of the woman is in danger.⁶ However, uncertainty remains about the reading of the law, and unsafe abortion is still a leading cause of maternal morbidity and mortality in Kenya.⁷ It is estimated that 75% of the 464,000 abortions in 2012 were conducted in an unsafe manner.⁸

Timely and age-appropriate comprehensive sexuality education (CSE) is a key method for helping adolescents avoid negative health outcomes and achieve sexual health.⁹ The Kenyan government supports CSE; however, the education sector policies mostly promote an abstinence-only approach. Teachers are poorly equipped to provide CSE. Students are taught that sex is immoral and dangerous for young people.¹⁰

Abortion stigma is the negative labelling of and discrimination against individuals associated with abortion.¹¹ Abortion stigma is found at all levels of society and exists worldwide. It inhibits women from accessing safe abortion services.¹² To prevent abortion stigma, women tend not to disclose their abortion behaviour¹³ and seek clandestine abortions, which may be unsafe.¹¹ Abortion stigma is believed to exist partly because abortion separates reproduction from female sexuality, destroying traditional ideals of womanhood.^{11,14}

Contraceptive use stigma refers to the excessive disapproval of contraceptive use. Women or adolescent girls who use contraceptives or carry condoms are sometimes negatively labelled as promiscuous, or as prostitutes.^{15,16} Young,

unmarried women are particularly affected by contraceptive use stigma due to social pressure, gender norms and religious beliefs regarding premarital sex.^{16,17}

In Kenya, religious beliefs and sociocultural norms continue to contribute to condemnation of premarital pregnancy and contraceptive use¹⁷ and abortion stigmatisation. Adolescent girls and young, unmarried women are particularly affected by the stigma surrounding abortion and contraceptive use.¹⁷ Social stigma surrounding adolescent pregnancy and the absence of support from the male partner once an adolescent girl becomes pregnant are other alarming circumstances.^{13,18}

Research surrounding abortion stigma is growing. However, most studies focus on women with unwanted pregnancies who have had an abortion.¹¹ Little is known about secondary school students' attitudes and beliefs regarding abortion and contraceptive use. Improving understanding of how stigmatisation of women's reproductive decision-making operates and how this stigma is influenced by social norms can inform strategies to reduce such stigma. Reduced judgemental attitudes in society may remove barriers and improve access to high-quality comprehensive sexual and reproductive health information, education and services. The aim of this study was to measure stigmatising attitudes and beliefs regarding abortion and contraceptive use among secondary school students in western Kenya.

Methods

Study design and eligibility

A cross-sectional study design was used. A self-reported classroom questionnaire-survey of both female and male students at two suburban public secondary schools in Kisumu, western Kenya, was conducted in February 2017. The data was collected as the baseline of a cluster-randomised control trial (ClinicalTrials.gov: NCT03065842) to evaluate the effectiveness of a sexuality education programme in secondary schools, with the aim of reducing stigmatising attitudes towards women and adolescent girls related to abortion and contraceptive use. The inclusion criteria comprised all female and male students studying at the two selected secondary schools who were present on the day of data collection. Participants provided oral and written informed consent. As the study population was adolescents, participants under the age of 18 were required to have a signed assent

and the tutor's consent in order to participate. The informed consent document was translated into the Kiswahili language and then back to English to provide a clear understanding for all participants as well as an accurate translation. This study was approved by the Jaramogi Oginga Odinga Teaching and Referral Hospital Ethical Review Committee (reference ERC.1B/VOL.I/263) and The Kenyan National Commission for Science Technology and Innovation.

Setting

The study was conducted in a low-income area of the Kisumu East and Kisumu Central sub-counties, western Kenya. Kisumu city is the capital city in Kisumu County, with an estimated population of 500,000. About 44% of the population in Kisumu County are between 0 and 14 years old.¹⁹ Kisumu County has a high proportion of primary school enrolment (95%); however, only 61% transition to secondary school.²⁰ Two local secondary schools were selected based on a cluster-randomised procedure. Inclusion criteria were public suburban secondary schools with a minimum of 400 students (mixed gender) in Kisumu. One intervention school and one control school were drawn from a regional sample frame of four schools. Both schools were gender-mixed public day schools. Christian Religious Education (CRE) in secondary schools in Kenya occupies a key position in the curriculum. The CRE syllabus has many biblical topics and concepts.

Data collection

Data was collected in February 2017 by trained research assistants who also administered the closed classroom questionnaires. As this was the point zero measure for the baseline of a larger intervention study, no specific information regarding abortion or contraception was provided to the school students by the researchers. Although potential misunderstanding about these terms is possible in this group of students, our assumption was that they had some knowledge and understanding of abortion and contraceptive use as the standard curriculum includes education on sexuality. The research assistants were available in the classroom and responded to basic questions regarding the questionnaire. The questionnaires were administered in English, as it was the primary language of the two schools and all research assistants were fluent in English. Due to the sensitivity of the questionnaire, the participants' responses were recorded without names.

Measures and outcomes

Since all the students came from a low-income area, for the purposes of this study, their families were considered to be in a low socioeconomic position. Age and gender were reported, and age was further broken down into three groups: 16–17 years, the average group ($n = 590$); 13–15 years, the younger group ($n = 274$); and 18–21 years, the older group ($n = 328$). These categories were developed based on the education system, syllabus and social aspects regarding abortion and contraceptive use in Kenya, but also to reveal comparable groups for statistical analysis. Two closed-ended questions regarding sexual behaviour were included: "Have you had your sexual debut (intercourse)?" and "Did you use any contraceptive method during your last intercourse?".

The Stigmatizing Attitudes, Beliefs and Actions (SABA) is an 18-item scale developed in 2013 by Ipas and is a validated tool used to measure abortion stigma.^{16,21} Three important dimensions of stigma can be captured by the SABA scale: (1) negative stereotypes associated with abortion (8 items), (2) discrimination/exclusion of women who choose to end their pregnancies (7 items) and (3) fear of contamination as a result of contact with a woman who underwent an abortion (3 items). A higher score on the SABA scale represents higher stigmatising attitudes and beliefs towards abortion. Based on previous research within this project, the SABA scale was modified to create an Adolescent Stigmatizing Attitudes, Beliefs and Actions (ASABA) scale.²¹ All items were adapted for an adolescent perspective and the word *woman* was replaced with *girl*.²¹ Using a similar framework, a Contraceptive Use Stigma (CUS) 7-item scale was developed to measure stigmatising attitudes among secondary school students toward girls associated with contraceptive use.²¹ Responses to the ASABA and CUS scales were given on a five-point Likert scale and ranged from *strongly disagree* (1) to *strongly agree*. (5) Thus, each respondent had a summed response score ranging from a minimum of 18 to a maximum of 90 (ASABA scale) and a minimum of 7 to a maximum of 35 (CUS scale). A higher score signified more agreement with the statement and consequently higher levels of stigma towards abortion and contraceptive use.

Study size

A total of 1,368 secondary school students were eligible for the study. Among them, two declined to

participate in the study, one from each school, and 159 students were not present on the day the study was conducted (illness or unpaid school fee). The sample size of about 1,200 was arbitrarily derived since the schools were cluster randomised. However, for the initial validation of the scales (manuscript in press) the sample size ($n = 300$) was based on the principle of a minimum of ten respondents (5/gender) per scale item, and with a drop-out rate of 20%.²¹

Statistical analysis

The scale responses (ASABA and CUS) were categorised into 1–2 (do not agree), 3 (unsure) and 4–5 (agree). Summed scores were calculated. For further analysis, the summed score of the ASABA scale was categorised as either high (summed score ≥ 46) or low (summed score < 46), and the summed score of the CUS scale was categorised as either high (summed score ≥ 19), or low (summed score < 19). The cut-off points were determined based on the population distribution (median). Descriptive statistics were used to describe stigma scores, and a Pearson's χ^2 test was used to test the differences between sexes and age groups. An independent sample t -test was used to compare means. The significance level was set at $p < .05$.

A binary logistic regression analysis was used to assess the independent factors (gender and age) associated with the dependent variable, high level of stigmatising attitudes on abortion and contraceptive use combined. The sample of this study is a homogenous group of secondary school students from a low resource setting in western Kenya. In this setting, the research topic was sensitive and therefore, the questionnaire only included gender and age to protect respondents' confidentiality. The cut-off point was determined based on the median (65), calculated on the total score for both the ASABA scale and the CUS. A summed score of ≥ 65 was set as high level of abortion and contraceptive use stigma, low level of stigma was a summed score < 65 . The associations were presented as odds ratios (OR) with a 95% confidence interval (CI). The first and the last authors reported the preliminary results to the entire research team and shared the full data set. All statistical analyses were performed using IBM SPSS Statistics for Windows, Version 25.

Results

Description of participants

The sample analysed was 1,207 of the 1,368 eligible students, or 88%. The 1,207 secondary school students were 13–21 years in age, with a mean age of 16.66 years (SD 1.5). The mean age for females was 16.48 (SD 1.45) and the mean age for males was 18.84 (1.56; $p < .001$). About 16% had initiated sexual intercourse, and out of those, 82.6% declared that they had used a contraceptive method during their last intercourse. Table 1 shows the characteristics of the respondents by gender.

Abortion stigma

Responses reflecting the students' responses on abortion stigma are presented in Table 2. Agreement with abortion stigma was seen in the Negative Stereotyping sub-scale, where the strongest agreement for a single item was "A girl who has an abortion is committing a sin", with 89.9% agreement, followed by "A girl who has an abortion brings shame to her family", which showed 73.4% agreement.

Contraceptive use stigma

Responses reflecting students' attitudes and beliefs on contraceptive use are presented in Table 3. The strongest agreement was seen for the item "A girl who uses contraception will encourage others to be promiscuous", with 47% agreement (mean 3.15; SD 1.4). Contraceptive use was considered physically harmful by 45.1% of the respondents (mean 3.18; SD 1.45). Agreement with contraceptive use stigma was seen among 40.8% of the respondents (mean 3.08; SD 1.42) who related the use of contraceptives to promiscuous female sexual behaviour. Contraceptive use was seen by 26.5% (mean 2.59; 1.36) of the adolescents as predominantly for married women.

Table 4 shows the mean scores for the ASABA and CUS scales by gender. The mean total score for responses on abortion stigma among male students (47.56, SD 9.43) was higher than that among female students (mean 45.04, SD 9.55); $p < .001$. The mean total score for responses on contraception use stigma was also higher among male students (mean 19.67, SD 5.17) than among female students (mean 18.41, SD 5.68); $p < .001$.

Table 1. Characteristics of respondents by gender

| Characteristic | Female | | Male | | Total | | P-value ^c |
|--|----------|--------|----------|--------|----------|--------|----------------------|
| | <i>n</i> | (%) | <i>N</i> | (%) | <i>n</i> | (%) | |
| Age (13–21) | 618 | (51.2) | 582 | (48.2) | 1200 | (99.4) | |
| 13–15 | 151 | (24.6) | 122 | (21.2) | 273 | (23.0) | .001 |
| 16–17 | 322 | (52.5) | 267 | (46.4) | 589 | (49.5) | |
| 18–21 | 140 | (22.8) | 187 | (32.5) | 327 | (27.5) | |
| Initiated sexual intercourse | | | | | | | |
| Age 13–15 | 5 | – | 9 | – | 14 | – | |
| 16–17 | 30 | (48.4) | 58 | (49.2) | 88 | (15.3) | |
| 18–21 | 27 | (43.5) | 51 | (43.2) | 78 | (24.5) | |
| Used contraceptives at last intercourse | | | | | | | |
| Age 13–15 | 4 | – | 7 | – | 11 | – | |
| 16–17 | 25 | (83.3) | 45 | (77.6) | 70 | (79.5) | |
| 18–21 | 26 | (96.3) | 41 | (80.4) | 67 | (85.9) | |

^aThe analysis is based on respondents to all questions in the table.
^bThe internal drop-out range between 7–33 (0.6–2.7%).
^cPearson's χ^2 test was used and the significance level was set at $p < .05$

High and low scores

On the ASABA scale, 52.3% of the students had high abortion stigma scores (summed score ≥ 46), while the remaining 47.7% had low scores (summed score < 46). On the CUS scale, 53.9% of the students had high contraceptive use stigma scores (summed score ≥ 19), while the remaining 46.1% had low scores. A larger proportion of male students expressed high abortion stigma (57.7%) compared to the female students (49.0%); $p = .003$. Similarly, for contraceptive use stigma, a larger proportion of male students (58.5%) than female students (50.6%); $p = .007$ had high total CUS scale scores. On average, the youngest age group (13–15 years) had higher stigma scores on abortion and contraceptive use than the older age groups. No association was seen between sexual debut and high abortion stigma ($p = .899$) or contraceptive use stigma ($p = .823$) (data not shown).

A binary logistic regression was run to assess the independent factors associated with a high level of stigmatising attitudes on abortion and

contraceptive use (Table 5). The model was adjusted for sex and age. The results showed that the boys had higher stigmatising attitudes compared to the girls (OR 1.68; $p < .001$), and the older age-groups had less stigmatising attitudes compared to the youngest age group (13–15), age 16–17 (OR 0.77; $p = .009$), respectively age 18–21 (OR 0.58; $p = .001$). The goodness of fit of the logistic regression model was evaluated with the Hosmer–Lemeshow test ($p = .736$) and the Nagelkerke *R* Squared ($p = .32$).

Discussion

The aim of this study was to measure stigmatising attitudes and beliefs toward girls associated with abortion and contraceptive use among secondary school students in Kenya. The results show that attitudes and beliefs in relation to abortion stigma and contraceptive use stigma are evident among secondary school students in western Kenya. A majority considered abortion to be a sin, as well

| ASABA scale items | | 4) Agree and 5) strongly agree | | 3) Not sure | | 1) Strongly disagree and 2) disagree | | Mean | SD | N | Missing | |
|-------------------|--|--------------------------------|--------|-------------|--------|--------------------------------------|--------|------|------|------|----------|-------|
| | | <i>n</i> | (%) | <i>n</i> | (%) | <i>n</i> | (%) | | | | <i>n</i> | (%) |
| 1. | A girl who has an induced abortion is committing a sin | 1085 | (89.9) | 24 | (2) | 98 | (8.1) | 4.48 | 1.07 | 1207 | 0 | (0) |
| 2. | Once a girl has one abortion, she will make it a habit | 625 | (51.8) | 235 | (19.5) | 341 | (28.3) | 3.35 | 1.32 | 1201 | 6 | (0.5) |
| 3. | A girl who has an abortion cannot be trusted | 456 | (37.8) | 183 | (15.2) | 563 | (46.6) | 2.90 | 1.41 | 1202 | 5 | (0.4) |
| 4. | A girl who has an abortion brings shame to her family | 886 | (73.4) | 92 | (7.6) | 221 | (18.3) | 3.89 | 1.28 | 1199 | 8 | (0.7) |
| 5. | The health of a girl who has an abortion is never as good as it was before the abortion | 823 | (68.2) | 132 | (10.9) | 247 | (20.5) | 3.79 | 1.34 | 1202 | 5 | (0.4) |
| 6. | A girl who has had an abortion might be a bad influence on other women | 651 | (53.9) | 141 | (11.7) | 408 | (33.8) | 3.28 | 1.43 | 1200 | 7 | (0.6) |
| 7. | A girl who has an abortion will be a bad mother | 273 | (22.6) | 238 | (19.7) | 693 | (57.4) | 2.50 | 1.32 | 1204 | 3 | (0.2) |
| 8. | A girl who has an abortion brings shame to her community | 694 | (57.5) | 165 | (13.7) | 345 | (28.6) | 3.48 | 1.39 | 1204 | 3 | (0.2) |
| 9. | A girl who has had an abortion should be prohibited from going to religious services | 56 | (4.6) | 39 | (3.2) | 1103 | (91.4) | 1.51 | 0.86 | 1198 | 9 | (0.7) |
| 10. | A girl who has had an abortion should be teased so that she will be ashamed about her decision | 199 | (16.5) | 110 | (9.1) | 890 | (73.7) | 2.08 | 1.24 | 1199 | 8 | (0.7) |
| 11. | A girl should be disgraced in my community if she has had an abortion | 136 | (11.3) | 156 | (12.9) | 903 | (74.8) | 1.99 | 1.11 | 1195 | 12 | (1.0) |

(Continued)

Table 2. Continued

| ASABA scale items | | 4) Agree and 5) strongly agree | | 3) Not sure | | 1) Strongly disagree and 2) disagree | | Mean | SD | N | Missing | |
|-------------------|--|--------------------------------|--------|-------------|--------|--------------------------------------|--------|------|------|------|---------|-------|
| | | n | (%) | n | (%) | n | (%) | | | | n | (%) |
| 12. | A man should not marry a woman who has had an abortion | 153 | (12.7) | 155 | (12.8) | 892 | (73.9) | 2.05 | 1.18 | 1200 | 7 | (0.6) |
| 13. | A girl who has had an abortion should no longer be associated with | 122 | (10.1) | 85 | (7) | 993 | (82.3) | 1.84 | 1.08 | 1200 | 7 | (0.6) |
| 14. | A girl who had an abortion should be pointed fingers at so that other people would know what she has done | 116 | (9.6) | 68 | (5.6) | 1015 | (84.1) | 1.74 | 1.05 | 1199 | 8 | (0.7) |
| 15. | A girl who has an abortion should not be treated the same as everyone else | 110 | (9.1) | 54 | (4.5) | 1035 | (85.7) | 1.72 | 1.07 | 1199 | 8 | (0.7) |
| 16. | A girl who has had an abortion can make other people fall ill or get sick | 90 | (7.5) | 93 | (7.7) | 1017 | (84.3) | 1.64 | 1.02 | 1200 | 7 | (0.6) |
| 17. | A girl who has had an abortion should be isolated from other people in the community for at least 4 weeks after having an abortion | 136 | (11.3) | 225 | (18.6) | 839 | (69.5) | 2.09 | 1.12 | 1200 | 7 | (0.6) |
| 18. | If a boy has sex with a girl who has had an abortion, he will most likely become infected with a disease | 108 | (8.9) | 248 | (20.5) | 844 | (69.9) | 1.95 | 1.14 | 1200 | 7 | (0.6) |

^aThe analysis is based on respondents to all questions in the table.
^bThe internal drop-out range between 0 and 12 (0–1.0%).

as shameful for the family and the community, while contraceptive use was associated with a promiscuous lifestyle. We postulate that the word sin has a religious basis and religion may have influenced the responses found in this study. Almost half of the students believed contraceptive use would negatively impact fertility. These quantitative findings are consistent with a recent systematic literature review on qualitative studies on abortion and contraception use attitudes among adolescents from LMICs.²²

The view that a girl who has an abortion not only brings shame to her family and community, but also that she will make it a habit and that she can have bad influence on other women, may be considered a resilient community norm based on cultural traditions.¹⁷ The results from this study indicate that respondents related the use of contraceptives to promiscuous female sexual behaviour. Participants also stated that contraceptive use was predominantly for married women.

Table 3. Frequency distribution of answers given to the questionnaire with CUS scale

| CUS scale items | | 4) Agree and 5) strongly agree | | 3) Not sure | | 1) Strongly disagree and 2) disagree | | Mean | SD | N | Missing | |
|-----------------|--|--------------------------------|--------|-------------|--------|--------------------------------------|--------|------|------|------|---------|-------|
| | | n | (%) | n | (%) | n | (%) | | | | n | (%) |
| 1. | A girl who uses a contraceptive method is promiscuous | 492 | (40.8) | 262 | (21.7) | 433 | (35.9) | 3.08 | 1.42 | 1187 | 20 | (1.7) |
| 2. | A girl who uses a contraceptive method will encourage others to be promiscuous | 566 | (46.9) | 197 | (16.3) | 430 | (35.6) | 3.15 | 1.40 | 1193 | 14 | (1.2) |
| 3. | A girl cannot decide for herself if to use a contraceptive method | 220 | (18.2) | 244 | (20.2) | 723 | (59.9) | 2.37 | 1.26 | 1187 | 20 | (1.7) |
| 4. | A married woman is more deserving of a contraceptive method than an unmarried woman | 320 | (26.5) | 240 | (19.9) | 632 | (52.4) | 2.59 | 1.36 | 1192 | 15 | (1.2) |
| 5. | A girl who uses contraceptives will have problem when she decides to get pregnant | 544 | (45.1) | 240 | (19.9) | 400 | (33.1) | 3.18 | 1.45 | 1184 | 23 | (1.9) |
| 6. | A girl who carries condoms is likely to have many sexual partners | 447 | (37.0) | 191 | (15.8) | 552 | (45.7) | 2.86 | 1.49 | 1190 | 17 | (1.4) |
| 7. | A girl should not insist to use a condom, it is the man to decide whether to use a condom or not | 129 | (10.7) | 120 | (9.9) | 944 | (78.2) | 1.80 | 1.18 | 1193 | 14 | (1.2) |

^aThe analysis is based on respondents who responded to all items in the table.

^bThe internal drop-out range between 14 and 23 (1.2–1.9%).

Table 4. Descriptive statistics for the scales of ASABA and CUS, by gender^a

| Scales | Score range | Female (n = 618) | | Male (n = 582) | | Total sample (n = 1207) | | P-value ^c |
|--|-------------|------------------|--------|----------------|--------|-------------------------|--------|----------------------|
| | | Mean | (SD) | Mean | (SD) | Mean | (SD) | |
| Total ASABA score (18 items) | 18–90 | 45.04 | (9.55) | 47.56 | (9.43) | 46.27 | (9.57) | .000 |
| Negative stereotyping (8 items) | 8–40 | 27.43 | (6.28) | 27.96 | (5.49) | 27.68 | (5.91) | .125 |
| Exclusion and discrimination (7 items) | 7–35 | 12.17 | (4.23) | 13.74 | (4.86) | 12.94 | (4.61) | .000 |
| Fear of contagion (3 items) | 3–15 | 5.47 | (2.14) | 5.91 | (2.36) | 5.68 | (2.26) | .001 |
| Total CUS score (7 items) | 7–35 | 18.41 | (5.68) | 19.67 | (5.17) | 19.04 | (5.48) | .000 |

^aThe internal dropout had a range of 9–53 (0.7–4.4%).

^bThe analysis is based on respondents who responded to all items in the table.

^cPearson's χ^2 test was used and the significance level was set at $p < .05$

Table 5. A binary logistic regression of factors associated with stigmatising attitudes on abortion and contraceptive use among secondary school students (n = 1179/1207)

| Independent factors | Associations with high level of stigma (summed score ≥ 65) | | |
|--|--|-----------|---------|
| | Students (n = 1179) | | |
| | OR ^a | CI 95% | P value |
| Male students | 1.68 | 1.33–2.12 | <.001 |
| Reference group: female students | | | |
| Age 16–17 years | 0.77 | 0.50–0.90 | .009 |
| Reference group: 13–15 years | | | |
| Age 18–21 years | 0.58 | 0.42–0.80 | .001 |
| Reference group: 13–15 years | | | |
| ^a Binary logistic regression (of students who responded to all the questions included in the model = 1179/1207), presented as an odds ratio (OR) with 95% confidence interval (CI). | | | |

Abortion and contraceptive use were considered physically harmful by a large proportion of the respondents. Misconceptions, such as infertility caused by contraceptive use, have been documented previously,^{23,24} and could be among the reasons for the high unmet need for contraception among young people in Kenya.²⁵

The ASABA scale item “The health of a girl who has an abortion is never as good as it was before the abortion”, is more complicated to analyse. While for safe induced abortion the risk of severe complications is minimal, women in Kenya are aware of the risks of an unsafe abortion, which may have impacted the result. The high incidence in Kenya of unsafe abortion⁴ and related complications,²⁶ could be a reason why most of the respondents strongly agreed or agreed with this item. On the other hand, social stigma towards women faced with unintended pregnancy may force them to choose a back-street abortion with unsafe procedures to avoid stigma.¹³

The results showed clear gender power dynamics. Male students had a higher total mean score for both abortion stigma and contraceptive use stigma compared to female students. These findings are consistent with previous research on gender-based differences in abortion attitudes.²⁷ Previous research from Uganda and South Africa indicated that males’ negative attitudes towards abortion can serve as a barrier to safe abortion and post-abortion care.^{28,29} However, the pervasiveness of negative attitudes towards abortion and contraceptive use among women suggests that women may also perpetuate abortion and contraceptive use stigma.³⁰ In a recent qualitative study, Kenyan men expressed that contraceptive use indicated female promiscuity and unfaithful women secretly use contraceptives. Evidently, reproductive decision-making is strongly male-dominated in Kenya.^{13,31} The principal decision-maker regarding the termination of pregnancy and contraceptive use in Kenya is often the male partner.^{13,31} Furthermore, the youngest age group (13–15 years) showed higher levels of stigmatising attitudes towards abortion and contraceptive use than the older age groups. It appears that older secondary school students have more supportive attitudes towards abortion and contraceptive use. By age the proportion of youth with sexual intercourse increases. A prior study from the region showed that girls with experience of sexual intercourse had lower levels of attitudes in relation to Sexual and Reproductive Health and Rights (SRHR) stigma³²; however, association between having had intercourse and level of stigma could not be confirmed in the current study. It may be that the students in this study had double standards, i.e. their attitudes regarding abortion and contraceptive use had no impact on whether they engaged in sexual intercourse or not. However, due to the sensitivity of this question in a classroom survey, it is more reasonable to assume that the students might not have provided honest answers about their experience of sexual intercourse. A relatively small proportion of this sample had initiated intercourse compared with the national average.⁴

Strengths and limitations

Some strengths of this study were the rigorous design, large sample size and low internal dropout. This study is timely and can fill some research gaps related to adolescents’ attitudes and beliefs regarding abortion and contraceptive use. Scientific publications within this topic from settings with restricted abortion laws and with a sample of secondary school

students are rare. However, despite the questionnaire being validated, a classroom survey may introduce some misinterpretation of the questions. Another limitation introduced by a classroom survey of this sensitive topic is that the students may not reveal their honest opinions, as they may fear that their classmates or teachers could see their responses, although these students were assured, in writing and verbally, that access to the results was restricted to the research team. In addition, the questionnaire only included age and gender as background characteristics to protect respondents' confidentiality and to offer a safe environment for the adolescents to respond honestly to the questions. Accordingly, the outcome was based on ordinal data with only two variables (a narrow age span, and gender) and thus the data were not appropriate for linear regression analysis. A non-parametric test such as the chi-squared test was used, therefore, in addition to a binary logistic regression which adjusted for age and gender.

Conclusion

This study showed that abortion and contraceptive use are highly stigmatised by students in Kenya. Contraceptive use stigma may contribute to unintended pregnancies and consequently unsafe abortions. The association between contraceptive use stigma and abortion stigma needs to be further investigated. The results from this study attest to the importance of gender- and age-appropriate information and education in order to dispel stigmatising attitudes towards abortion and contraceptive use. Understanding adolescents' attitudes and beliefs regarding abortion and contraceptive use is important to effectively address SRHR issues affecting this sexually active age group. Furthermore, this age group will be influencers and leaders for attitudes in the near future. The outcomes from this analysis could be used in SRHR programming, including CSE curricula development and stigma reduction programmes. CSE and stigma reduction programmes should include

evidence and rights-based approaches to account for safe abortion and contraceptive use.

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Résumé

La stigmatisation sociale relative à la prise de décisions reproductives par les femmes a des répercussions négatives sur leur santé. Néanmoins, on sait peu de choses des attitudes et croyances stigmatisantes entourant l'avortement et l'emploi de contraceptifs chez les adolescents. Le but de cette étude était de mesurer les attitudes et croyances stigmatisantes relatives à l'avortement et l'emploi de contraceptifs chez les élèves de l'enseignement secondaire dans l'ouest du Kenya. Une enquête au moyen d'un questionnaire de classe autoadministré a été réalisée en février 2017 auprès d'étudiants dans deux écoles secondaires suburbaines du Kenya occidental. Deux échelles ont été utilisées pour mesurer la stigmatisation entourant l'avortement et l'emploi de contraceptifs: l'échelle des attitudes, croyances et actions stigmatisantes chez l'adolescent (Adolescent Stigmatizing Attitudes, Beliefs and Actions/ASABA) et l'échelle de stigmatisation en cas d'emploi de contraceptifs (Contraceptive Use Stigma/CUS). 1369 étudiants réunissaient les conditions pour l'étude; 1207 personnes (femmes = 618, hommes = 582) âgées de 13 à 21 ans ont été incluses dans l'analyse. Les données ont été examinées à l'aide des statistiques descriptives, du test du χ^2 de Pearson et du test t. L'analyse de régression logistique binomiale a servi à calculer les rapports de cotes et les intervalles de confiance à 95%. Les étudiants ont fait état d'une stigmatisation associée à l'avortement (53.2%) et l'emploi de contraceptifs (54.4%). Une plus forte proportion de garçon a signalé une stigmatisation liée à l'avortement (57.7%) et à l'emploi de contraceptifs (58.5%) que de filles (49.0%, $p = 0.003$ et 50.6%, $p = .007$, respectivement). Des résultats plus élevés ont été observés chez les groupes plus jeunes que chez les groupes plus âgés. Aucune association n'a été identifiée entre le début de l'activité sexuelle et la stigmatisation entourant l'avortement ($p = .899$) ou la stigmatisation en cas d'emploi de contraceptifs ($p = .823$). L'avortement et l'emploi de contraceptifs sont stigmatisés par les étudiants au Kenya. Les résultats peuvent être utilisés pour lutter contre la stigmatisation de l'avortement et pour accroître l'emploi de contraceptifs chez les adolescents au Kenya.

Resumen

El estigma social relacionado con la toma de decisiones de las mujeres sobre su salud reproductiva afecta negativamente la salud de las mujeres. Sin embargo, no se sabe mucho acerca de las actitudes y creencias estigmatizantes en torno al aborto y el uso de anticonceptivos entre adolescentes. El objetivo de este estudio era medir las actitudes y creencias estigmatizantes respecto al aborto y el uso de anticonceptivos entre estudiantes de escuela secundaria en Kenia occidental. En febrero de 2017 se administró un cuestionario-encuesta autorreportado a estudiantes en dos escuelas secundarias suburbanas en Kenia occidental. Se utilizaron dos escalas para medir el estigma en torno al aborto y el uso de anticonceptivos: la escala de Actitudes, creencias y acciones estigmatizantes de adolescentes (ASABA) y la escala de Estigma del uso de anticonceptivos (CUS); 1369 estudiantes eran elegibles para participar en el estudio; 1207 (mujeres = 618, hombres = 582) de 13 a 21 años de edad fueron incluidos en el análisis. Para analizar los datos se utilizaron estadísticas descriptivas, la prueba de Pearson χ^2 y la prueba t. Se utilizó el análisis de regresión logística binaria para calcular la razón de momios (RM) y el intervalo de confianza (IC) de 95%. Los estudiantes informaron estigma asociado con el aborto (53.2%), y con el uso de anticonceptivos (54.4%). Un mayor porcentaje (57.7%) de estudiantes de sexo masculino informaron estigma del aborto y estigma del uso de anticonceptivos (58.5%), comparados con estudiantes de sexo femenino (49.0%, $p = .003$ y 50.6%, $p = .007$, respectivamente). Se vieron puntajes más altos en grupos de edad más jóvenes comparados con los de mayor edad. No se identificaron asociaciones entre el inicio de la actividad sexual y el estigma del aborto ($p = .899$) o el estigma del uso de anticonceptivos ($p = .823$). El aborto y el uso de anticonceptivos son estigmatizados por estudiantes en Kenia. Los resultados del estudio se pueden utilizar para combatir el estigma del aborto y para aumentar el uso de anticonceptivos entre adolescentes en Kenia.