Original Article

# Determinants of Risky Sexual Behavior among Secondary School Adolescents in Cross River State, Nigeria

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## Abstract

**Background:** Adolescent risky sexual behavior and its consequences are serious problems affecting all the nations negatively and require research attention to profer solutions. **Aim:** To determine the prevalence of risky sexual behavior and its determinants among adolescents in co-educational secondary schools in Cross River State (CRS). **Materials and Methods:** The study design was cross sectional and involved the use of semi-structured self-administered questionnaire that had two sections A and B. Data were analyzed with IBM SPSS version 21 using descriptive measures and frequency distributions. Non-co-educational secondary schools, co-educational secondary schools with sexuality education programs, and private secondary schools were excluded, and only co-educational public secondary schools without sexuality education programs and students 10–19 years were included in the study. **Results:** Prevalence of sexual intercourse was 41.5% and was statistically significantly higher among the boys than the girls. Among the sexually exposed boys, 33% of them were sexually active, while among the girls, 32.7% were sexually active.($\chi^2$ = 0.73; *P* =0.34). Among the age groups, 33% of students within the ages of 14–16 years and 82.6% within the ages of 17–19 years were sexually exposed. The percentages sexually exposed for polygamous and monogamous homes were 186 (55.5%) and 106 (27.7%), respectively ($\chi^2$ = 58; *P* = 0.00). Similarly, students in SS3 class and students that were not monitored by parents had higher percentages of ever indulging in sexual activity, with 79.7% and 52.3%, respectively ($\chi^2$ = 17.3; *P* = 0.00), ($\chi^2$ = 56; *P* = 0.01). Forty-nine point four (49.4%) of the students whose mothers had at most primary education have had sexual exposure, while 34% of those whose mothers had at least secondary education have had sexual exposure ($\chi^2$ = 18.23; *P* = 0.00). Similarly, students whose parents had unskilled jobs also had a high percentage of sexual exposure ($\chi^2$ = 13.6; *P* = 0.00.). Age (odds ratio [OR] = 2.69) indicated that as the age increases the students were 2.69 times more likely to be sexually exposed, Family type (OR = 3.01) showed that students from polygamous homes were 3 times more likely to have been sexually exposed than their counterparts from monogamous families. **Conclusion:** The prevalence of risky sexual behavior among students in co-educational secondary schools in CRS, Nigeria, is high. Age, family type, parental monitoring, and socioeconomic status were strongly associated with risky sexual behavior.

**Keywords:** Adolescents, determinants, parental monitoring, prevalence, sexual exposure, sexuality

## Introduction

Nations of the world view the sexual activity of adolescents as problematic due to associated cases of sexually transmitted infection, HIV/AIDS, emotional and psychosocial injuries as well as increased cases of teenage pregnancies in recent years.[1,2] Adolescence is a critical transition stage in life that is characterized by sexual experimentation and sexuality issues which arise naturally and determines the physical and psychosocial development of the adolescents.[3,4]

At different levels, many developmental challenges are experienced by adolescents such as increasing need for

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independence, evolving sexuality, transitioning through education and starting employment, consolidating advanced cognitive abilities, negotiating changing relationships with family, peers and broader social connections, assuming legal responsibilities, developing personal ethics and a healthy identity.[5] It is a transitional period from childhood into adulthood. Many adolescents transit successfully, while others are exposed to several conditions that hinder their successful transition and place them at risk of deadly infections.[6] It is therefore important to study the determinants of risky sexual behavior among adolescents considering that they are the future generation and the effect of this can be devastating to the society, more so, the information obtained would be useful in adolescent sexual and reproductive health programming.

## Materials and Methods

### Study setting

Cross River State (CRS) is the study setting. It is a coastal state located in the South-South region of Nigeria and named after the Cross River. It is one of the Niger Delta states and occupies an area of 20.150 km and has a population of 3.8 million people.[7]

It is divided into three senatorial districts, i.e., southern, central, and Northern senatorial districts. The state is also divided into educational zones, namely Calabar, Ikom, and Ogoja zones. There are more than 230 preprimary schools, 648 primary schools, and 232 co-educational public secondary schools. The state also has some tertiary institutions that include a college of education, a college of technology, a college of management as well as a Federal university, and a State University of technology.

The health system is made up of the three tiers that follow the tiers of the Government, i.e., the primary, secondary, and tertiary with Teaching hospitals at the Federal level, General Hospitals at the state level, and Primary Health Care Centres at the local government level. There is a secretariat of the National Program of the adolescents' Health Committee at the Federal level under the Ministry of Health. The State also operates a State adolescents Health program under the auspices of the Federal Ministry of Health. The adolescent health program at the local government areas (LGAs) level is controlled by the Primary Health care Department. Therefore, examining the disparities and determinants of adolescents' risky sexual behavior is imperative as it will serve as a directive for solutions to the problems associated with this aspect of adolescent health.

### Study population

The study population included students between the ages of 10 and 19 years in all co-educational public secondary schools in CRS. There are 232 co-educational public secondary schools in the State.

### Study design

Cross-sectional study design was used, i.e., a snap-shot in time.

### Sample size

Cochran's formula for calculating sample size was used.[8]

$$n = \frac{z^2 \times p(1 - p)}{e^2}$$

$n$ = minimum sample size

$z$ = confidence level at 95% (standard value of 1.96)

$P$ = proportion of adolescents who are sexually active based on previous studies.[9]

$e$ = margin of error at 5% (standard value of 0.05)

$$\frac{1.96^2 \times 38(100 - 38) = 362.6}{5^2}$$

The sample size is multiplied by the design effect ($D$) which is 2[10]

Therefore n × D = 362 × 2 = 724

Contingency to account for the recording error and nonresponse is 5%

=724 + 5/100 × 724 = 760 approximated to 768

Sample size = 768

### Sampling technique

There are three senatorial districts and 18 LGAs in CRS, with a total of 232 co-educational public secondary schools. Through Multistage sampling, two LGAs were selected from each senatorial district to get 6 LGAs that were used for the study. Four schools were each selected from the six LGAs out of convenience representation of public schools to make 24 schools. Based on the exclusion criteria for the selection of schools in the protocol (i.e., secondary schools with sexuality education programs and non-co-educational secondary schools), six schools with sexuality education program were excluded from the study. The remaining 18 schools that met the inclusion criteria as in the protocol (i.e., schools without sexuality education program and are co-educational) were further subjected to random sampling by balloting in each LGA to get 12 schools, two from each of the six LGAs.

Simple random sampling technique (balloting) was adapted to select one class from each selected school. Based on the minimum sample size of 768, 64 students were to be selected from each selected class. One arm was selected from each selected class, and all the 64 students in the arm were used for the study. Where the students were not up to 64, the next selected arm was used. Students were selected from that arm using simple random (balloting) technique to make up for the number of students. Where the students were more than 64 in an arm, then simple random sampling technique was used to select 64 students only. Thus, a total of 768 students were selected in the 12 selected schools.

### Instrument for data collection

A semi-structured questionnaire that had two sections A and B was used. Section A – was on sociodemographic data, while Section B – elicited 10 items on sexual behavior. The questionnaire was self-administered and information of participants was collected and questionnaires returned on the spot.

### Data analysis

Data were entered and cleaned with Epi Info 7 software manufactured by centres for disease control and prevention.[11] The SPSS version 21 IBM, Armonk, New York and Open Epi were used for analysis.[12,13] were used for analysis. Descriptive measures were determined for all quantitative variables such as age, knowledge score, and change in knowledge score, etc., Frequency distributions were generated for categorical variables. The Chi-square statistic was used to test for association between categorical variables. The unconditional logistic regression was used to examine determinants of sexual behavior and attitude while controlling for confounders.

## Results

Table 1 shows the sociodemographic characteristics of selected secondary school students in CRS. Seven hundred and sixty-eight questionnaires were distributed to 768 students and all the questionnaires were retrieved. Of the 768 students, 51% were boys while 49% were girls. Seventy percent (70%) of the students were within the ages of 14–16 years, while 6% and 24% were within the ages of 10–13 and 17–19, respectively. Seventy-eight percent (78%) of the students resided with their parents, while 22% lived alone or with their relatives, 44% of the study students were from polygamous homes, and 56% were from monogamous homes. The socioeconomic data of parents of secondary school students in the study are shown on Table 2: 47% of the mothers had at most primary education and 53% had at least secondary education, while 313 (40.8%) and 455 (59.2%) of the father's had at most primary education and at least secondary education respectively. Thirty-six percent (36.6%) of the fathers and 32.6%% of the mothers had skilled jobs.

### Prevalence of sexual characteristics

Table 3 shows the sexual behavior of secondary school students according to gender. The prevalence of sexual intercourse among the students was 41.5%. The prevalence of sexual exposure among the boys was 42.6%, while among the girls, it was 39.9. There was a statistically significant difference in the percentage of boys that were sexually exposed when compared to the percentage of girls ($\chi^2 = 14.5$; $P < 0.001$). A total of 253 students representing 33% of the participants were sexually active. Among the sexually exposed boys, 33% of them were sexually active, while among the girls, 32.7% were sexually active. However, there was no statistically significant difference in the percentage of boys that were sexually active when compared to the percentage of girls ($\chi^2 = 0.73$; $P = 0.34$). Among those who have ever had sex, 60% of the Students exchanged sex with other gifts items such as Jewries, phones, money, etc., and 65% used condom. The median age of sexual debut, the median frequency of sexual intercourse and the median number of sexual partners among secondary school students in CRS is shown in Table 4. The median age of sexual debut was 15 years for boys and 14 years for girls, while the median frequency of sexual intercourse was three times per

**Table 1: Sociodemographic characteristics of selected secondary school students in Cross River State in the 2019/2020 academic session**

| Characteristics | Frequency ($n=768$), *n* (%) |
|---|---|
| Gender | |
| Male | 392 (51.0) |
| Female | 376 (49.0) |
| Age group | |
| 11-13 | 50 (6.5) |
| 14-16 | 561 (73.6) |
| 17-19 | 157 (20.4) |
| Class | |
| JSS3 | 128 (16.7) |
| SS1 | 320 (41.7) |
| SS2 | 256 (33.3) |
| SS3 | 64 (8.3) |
| Resident | |
| Urban | 267 (34.8) |
| Rural | 501 (65.2) |
| Reside with parents | |
| Yes | 597 (77.7) |
| No | 171 (22.3) |
| Family type | |
| Polygamy | 335 (43.6) |
| Monogamy | 483 (50) |
| Others | 50 (6.4) |

**Table 2: Socioeconomic data of parents of secondary school students in the study**

| Demographic data | Frequency ($n=768$), *n* (%) |
|---|---|
| Educational status of mother | |
| At most primary | 356 (47) |
| At least secondary | 412 (53) |
| Educational status of father | |
| At most primary | 313 (40.8) |
| At least secondary | 455 (59.2) |
| Parent's marital status | |
| Married | 727 (94.7) |
| Single | 17 (2.2) |
| Separated/divorce | 16 (2.1) |
| Widowed | 8 (1) |
| Father occupation | |
| Skilled | 281 (36.6) |
| Unskilled | 487 (63.4) |
| Mother's occupation | |
| Skilled | 250 (32.6) |
| Unskilled | 518 (67.5) |

**Table 3: Sexual behavior of secondary school students according to gender**

| Sexual behaviors | Male, *n* (%) | Female, *n* (%) | Total, *n* (%) | $\chi^2$ | *P* |
|---|---|---|---|---|---|
| Ever had sex | *n*=392 | *n*=376 | *n*=768 | | |
| Yes | 167 (42.6) | 150 (39.9) | 317 (41.5) | 14.5 | 0.00 |
| Sexually active | *n*=167 | *n*=150 | *n*=317 | | |
| Yes | 130 (33) | 123 (32.7) | 253 (33) | 0.73 | 0.34 |
| Sex in exchange for gift items | | | | | |
| Yes | 94 (56.3) | 106 (70.7) | 200 (60) | 14.4 | 0.00 |
| Frequency of sex/month | | | | | |
| >3 | 47 (28.1) | 41 (27.3) | 88 (28) | 0.02 | 0.87 |
| ≤3 | 120 (71.9) | 109 (72.7) | 229 (72) | | |
| Total use of condom | | | | | |
| Yes | 108 (64.7) | 99 (66) | 207 (65.3) | 15.8 | 0.01 |

*P*<0.05

**Table 4: Median age of sexual debut, frequency of sexual intercourse and number of sex partners of secondary school students**

| Variable | Male | Female | $\chi^2$ | *P* |
|---|---|---|---|---|
| Median age of sexual initiation | 15 | 14 | | |
| Median frequency/month | 3 | 2 | 0.58 | 0.45 |
| Median number of sex partners | 2 | 2 | 1.61 | 0.21 |

*P*<0.0.05

month for boys and two times per month for girls and the median number of sexual partners were two for girls against two for boys. However, the median age of sexual debut and median frequency of sexual intercourse among boys and girls was statistically significant ($\chi^2 = 0.03$; $P = 0.01$ and $\chi^2 = 0.45$; $P = 0.02$), respectively.

### Determinants of sexual behavior

The association between demographic characteristics and sexual exposure among selected secondary school students in the study is presented in Table 5. Among the age groups, 33% of students within the ages 14–16 years and 82.6% within the ages of 17–19 years were sexually exposed. Adolescents in rural settings and in polygamous homes had a higher predisposition to sexual exposure. 39.9% in the rural areas against 43.8% in the urban areas were sexually exposed; while the percentages for polygamous and monogamous homes were 186 (55.5%) and 106 (27.7%), respectively. Though the difference in the percentage of those that were sexually exposed was not statistically significant for the rural and urban setting ($\chi^2 = 1.09$; $P = 0.24$), it was statistically significant for adolescents in polygamous homes when compared with those from monogamous homes ($\chi^2 = 58$; $P = 0.00$). Similarly, students in SS3 class, students that were not monitored by parents, and those who did not live with their parents, had higher percentages of ever indulging in sexual activity, with 79.7%, 55%, and 52.3% sexual exposure, respectively. The difference in percentage among those who were sexually exposed was statistically significant among the classes of students ($\chi^2 = 17.3$; $P = 0.00$) and those who were not monitored ($\chi^2 = 56$; $P = 0.01$). There was no statistically significant difference for those who did not reside with parents and those who resided with parents ($\chi^2 = 1.05$; $P = 0.15$).

### Socioeconomic status and sexual exposure

Table 6 shows association between socioeconomic status (SES) and sexual exposure in selected secondary school students in the study. 49.4% of the students whose mothers had at most primary education have had sexual exposure, while 34% of those whose mothers had at least secondary education have had sexual exposure. The percentage of students whose mothers had at most primary education had statistically significantly higher sexual exposure than those whose mothers had at least secondary education ($\chi^2 = 18.23$; $P = 0.00$). Similarly, students whose parents had unskilled jobs also had a high percentage of sexual exposure. 43.4% of students whose mothers had unskilled jobs and 46% of those whose fathers had unskilled jobs were sexually exposed. Although the percentage of sexually exposed students among fathers with unskilled jobs was statistically significant, ($\chi^2 = 13.6$; $P = 0.00$.) that among mothers with unskilled jobs was statistically insignificant ($\chi^2 = 0.89$; $P = 0.99$).

Table 7 shows the relationship between selected independent variables and sexual exposure among co-educational secondary school students in the study. The independent variables (gender, age, family type, resident, and parental monitoring) showed statistically significant association ($P < 0.05$) with sexual behavior after controlling for confounders. The odd ratio for age (odds ratio [OR] = 2.69) indicated that as the age increases the students were 2.69 times more likely to be sexually exposed while the odd ratio (OR = 3.01) for family type showed that students from polygamous homes were 3 times more likely to have been sexually exposed than their counterparts from monogamous families.

## Discussion

### Prevalence of sexual activity

The prevalence of sexual intercourse in the study area among secondary school students was 41.5%. This was

**Table 5: Association between sociodemographic characteristics and sexual exposure among selected secondary school students in Cross River State, Nigeria in 2019/2020 academic year**

| Variables | Sexual exposure | | Total, *n* (%) | $\chi^2$ | *P* |
|---|---|---|---|---|---|
| | Yes, *n* (%) | No, *n* (%) | | | |
| Age group | | | | | |
| 11-13 (*n*=50) | 2 (4) | 48 (96) | 50 (100) | 61.2 | 0.00 |
| 14-16 (*n*=561) | 185 (33) | 376 (67) | 561 (100) | | |
| 17-19 (*n*=157) | 130 (82.8) | 27 (17.2) | 157 (100) | | |
| Residence | | | | | |
| Rural (*n*=501) | 200 (39.9) | 301 (60.1) | 501 (100) | 1.09 | 0.24 |
| Urban (*n*=267) | 117 (43.8) | 150 (56.2) | 267 (100) | | |
| Family type | | | | | |
| Polygamy (*n*=335) | 186 (55.5) | 149 (44.5) | 335 (100) | 58.0 | 0.00 |
| Monogamy (*n*=383) | 106 (27.7) | 277 (72.3) | 383 (100) | | |
| Others (*n*=50) | 25 (50) | 25 (50) | 50 (100) | | |
| Class | | | | | |
| JSS3 (*n*=128) | 36 (28) | 92 (72) | 128 (100) | 17.3 | 0.00 |
| SS1 (*n*=320) | 93 (29) | 227 (71) | 320 (100) | | |
| SS2 (*n*=256) | 137 (53.5) | 119 (46.5) | 256 (100) | | |
| SS3 (*n*=64) | 51 (79.7) | 13 (20.3) | 64 (100) | | |
| Monitoring | | | | | |
| Yes (*n*=411) | 121 (29.4) | 290 (70.5) | 411 (100) | 56.0 | 0.01 |
| No (*n*=357) | 196 (55) | 161 (45) | 357 (100) | | |
| Reside with parent | | | | | |
| Yes (*n*=380) | 114 (30) | 266 (70) | 380 (100) | 1.05 | 0.15 |
| No (*n*=388) | 203 (52.3) | 185 (47.7) | 388 (100) | | |

*P*<0.05

**Table 6: Association between socioeconomic status of parents and sexual exposure of students in selected secondary schools**

| Socioeconomic characteristics | Sexual exposure | | Total, *n* (%) | $\chi^2$ | *P* |
|---|---|---|---|---|---|
| | Yes, *n* (%) | No, *n* (%) | | | |
| Mothers level of education | | | | | |
| Atmost primary (*n*=362) | 179 (49.4) | 183 (50.6) | 362 (100) | 18.23 | 0.00 |
| At least secondary (*n*=406) | 138 (34) | 268 (66) | 406 (100) | | |
| Father level of education | | | | | |
| At most primary (*n*=313) | 167 (53.3) | 146 (46.6) | 313 (100) | 28.20 | 0.00 |
| At least secondary (*n*=455) | 150 (32.9) | 305 (67) | 455 (100) | | |
| Mothers occupation | | | | | |
| Skilled (*n*=250) | 92 (36.8) | 158 (63.2) | 250 (100) | 0.89 | 0.09 |
| Unskilled (*n*=518) | 225 (43.4) | 293 (56.6) | 518 (100) | | |
| Father's occupation | | | | | |
| Skilled (*n*=281) | 93 (33) | 188 (67) | 281 (100) | 13.86 | 0.00 |
| Unskilled (*n*=487) | 224 (46) | 263 (54) | 487 (100) | | |

*P*<0.05

high compared with the prevalence of sexual intercourse in Port Harcourt, River State and Ogun State which were much lower.[14,15] This shows that the prevalence of sexual intercourse among secondary school students in Nigeria varies from state to state.[2] The prevalence of sexual intercourse in the study was quite high considering the age of the students (as teenagers) and their experience in handling sexual relationship.[16] This agreed with studies which have concluded that sexual activity among adolescents in Sub-Saharan Africa was on the increase with its attendant risks on the individual and the society.[17] Although prevalence in this study was higher than the prevalence of sexual intercourse in countries such as Thailand and Kenya where the prevalence of sexual intercourse was 11.7% and 14.9%, respectively,[18,19] it was, however, low compared with a study done in the United States where the prevalence of sexual intercourse among secondary school students was 47%[20] which may be due to cultural and environmental influences.

**Table 7: Logistic regression analysis of the relationship between selected independent variables and sexual exposure among secondary school students**

| Variables | OR | 95% CI (Li-U) | SE | RC | Z-stat | P |
|---|---|---|---|---|---|---|
| Gender (female*) | 1.45 | 1.03-2.05 | 0.15 | 0.02 | 0.06 | 0.03 |
| Age (11-14*) | 2.20 | 2.69-3.2 | 0.09 | 1.04 | 11.23 | 0.00 |
| Family type (monogamy*) | 3.10 | 2.30-4.27 | 0.16 | 1.14 | 7.26 | 0.00 |
| Resident (rural*) | 0.27 | 0.090-0.79 | 0.54 | −1.29 | −2.39 | 0.02 |
| Reside with parents (no*) | 00.4 | 31.7-6.5 | 1.18 | 0.5 | 1.79 | 0.46 |
| Parental monitoring (no*) | 0.3 | 0.21-0.39 | 0.16 | 0.3 | 7.76 | 0.00 |

*P*<0.05. *Reference category. RC: Regression coefficient, OR: Odds ratio, CI: Confidence interval, SE: Standard error

The prevalence of sexual intercourse was statistically significantly higher among the boys than the girls. This agrees with the study, which reported that boys had more sexual exposure than girls[21] and also with a national survey on the general sexual characteristics of adolescents in Serbia which reported that males had more sexual experience than their female counterparts.[22] The possible explanation for the high prevalence of sexual intercourse among boys than girls could be due to cultural ego in our society that have more regard for boys than girls[21] and the fact that boys are seen to be at lesser risk than girls and as such are not closely monitored by their parents. It could also be because of the worldwide belief that boys' sexuality is uncontrollable and demands immediate satisfaction.[23] However, this was contrary to previous studies which reported that girls were more sexually exposed than boys.[24] The study showed that 33% of the students were sexually active (had sexual intercourse at least once a month). This prevalence could be compared with the study carried out by a researcher in Port Harcourt, Nigeria, where 37% of the students in the study were seen to be sexually active.[25] The study did not show any statistically significant difference between boys and girls that were sexually active. This shows that there is closure in the gap of sexual activity between boys and girls. This corroborates the study done in the United States which observed a recent decrease in the prevalence of sexual activity among the boys and an increase among the girls[26] and concluded that there was a gradual closure in the sexuality gap among adolescent boys and girls.

In this study, there was a high rate of exchanged of sex for other gifts items, and inconsistency of condom use among secondary school students. This agrees with a study which showed inconsistency in condom use and high rate of exchange of sex with other gifts among secondary school students.[27] The students had multiple sex partners and the frequency of sexual intercourse was high among them in this study and was similar to the studies which posited that adolescents are more likely to have multiple sex partners and have sex more often.[9,28] The possible explanation for this could be associated with the hormonal surge in this age group, as have been suggested[29] and the negative social forces affecting the adolescents in the study area.[30] The median age of sexual debut was 15 years for boys and 14 years for girls. This agrees with the study carried out by Pringle, *et al*., [9] where the median age of sexual debut in CRS was 14 years. This is a little lower than the median age reported by the NARHS, which was 16 years for girls and 17 for boys.[24] This difference could be because of the difference in the age group used in the two studies.

### Determinants of adolescent sexual behavior

The determinants of sexual behavior included age, class, and place of residence, residing with parents, and parent monitoring. The prevalence of sexual intercourse was highest among 17–19 year age group. This agrees with studies that have concluded that as adolescents grow older, they become more sexually active.[24] The prevalence of sexual intercourse was statistically significantly higher among students from polygamous families than those from monogamous families. This is in line with the study that showed that adolescents from polygamous family structure are more sexually active and begin sexual activity earlier than their counterparts from monogamous family.[15] Prevalence of sexual intercourse was higher among students that were not monitored by their parents and guardians than those that were monitored. Several studies have concluded that monitoring and supervision reduce sexual behavior risk among adolescents.[31,32]

### Socioeconomic status and sexual exposure

Socioeconomic status (SES) is said to influence adolescent sexual behavior, particularly mother's education and father's occupation.[30] In this study mother's educational level, father's educational level, and father's occupation as indices of SES had statistically significant effect on the students' sexual behavior. This supports the study that showed poor SES of parents as being the major factor that exposed adolescents to risky sexual behavior[19] and it disagreed with the study which opined that adolescents from wealthier families were more exposed to risky sexual behavior.[33] The possible explanation for this difference could be because of the study settings which were in developing and developed countries, respectively. Unconditional logistic regression analysis also revealed that age, gender, residence, and parental monitoring had statistically significant effects on adolescents' sexual behavior which agrees with earlier studies.[15,27,28,34]

## Conclusion and Recommendation

The prevalence of risky sexual behavior among students in co-educational secondary schools in CRS, Nigeria, is high. This is influenced by age, gender, residence, SES, and

parental monitoring. Parental monitoring, therefore, should be encouraged, and sex education should be included in the school curriculum.

## Ethical consideration

Ethical approval for the study was sought and obtained from the Health Research Ethics Committee of the CRS Ministry of Health.


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## Conflicts of interest

There are no conflicts of interest.

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