

ORIGINAL ARTICLE

Socio-demographic Determinants of Sexual Activity and Induced Abortion Among Female Undergraduates in Tertiary Institutions in Imo State, South-East, Nigeria**Duru Chukwuma B.¹, Achigbu Kingsley², Nwachukwu Iheanyi M.³, Anumudu Elias³**

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Phone no.: +2348036260949, ORCID ID: <https://orcid.org/0009-0007-3244-3905>**ABSTRACT**

Background: Sexual and reproductive health issues remain significant challenges, particularly among youth. Female undergraduates in tertiary institutions face unique circumstances that can influence their sexual behaviour and reproductive choices. Thus, this study assessed the determinants of sexual activity and induced abortion among female undergraduates in Imo State, Southeast, Nigeria.

Methods: This was a cross-sectional study conducted among 500 female undergraduates selected by multistage sampling technique. Data were obtained using self-administered questionnaires and analyzed using SPSS version 26. Chi-Square test and Logistic regression analysis were used to identify the determinants of sexual activity and induced abortion among women. The level of statistical significance was determined at $p < 0.05$.

Results: The mean age of the respondents was 20.3 ± 0.9 years with the majority being single. The prevalence of sexual activity in the last three months preceding the study was 30.8% while the prevalence of induced abortion was 8.4%. The predictors of sexual debut in the last three months preceding the study were; age 30 years and above (AOR=11.68, 95% CI: 4.96-27.51), (AOR=11.68, 95% CI:4.96-27.51), being an ever-married student (AOR=15.59, 95% CI:8.81-27.58), of the Hausa tribe (AOR=11.64, 95% CI:3.77-35.92), attending Islam or traditional religion (AOR=10.65, 95% CI:3.77-30.06), living with a male partner (AOR=40.77, 95% CI:15.85-104.82), being sponsored in school through scholarship (AOR=9.78:3.46-27.64), studying in a non-medical related faculty (AOR=1.56, 95% CI:1.08-2.32), sharing room with a male partner (AOR=18.16, 95% CI: 8.43-39.10), earning an income (AOR=4.24, 95% CI: 2.83-6.33). The predictors of induced abortion were; age 30 years and above (AOR=14.46, 95% CI:4.50-42.22), being an ever-married student (AOR=4.59, 95% CI:2.37-8.85), of the Yoruba ethnic nationality (AOR=4.69, 95% CI: 2.27-9.71), attending traditional religion (AOR=18.38, 95% CI: 2.40-141.10), living with a partner (AOR=19.00, 95% CI: 4.14-87.16), self-sponsorship in school (AOR=13.89, 95% CI: 5.94-32.45), and being a part-time student (AOR=5.68, 95% CI: 2.76-11.74).

Conclusion: Many socio-demographic variables were found to influence both sexual activity and induced abortion among undergraduates, . thus Thus, it is crucial to develop effective and targeted interventions that promote improved sexual and reproductive health of female undergraduates.

INTRODUCTION

According to the World Health Organization's definition, unsafe abortion refers to a procedure performed to terminate an unintended pregnancy by individuals lacking the necessary medical skills or in an environment that does not adhere to minimum medical standards, or both.¹ This practice contributes to nearly 13% of all maternal deaths.¹ Despite being preventable, unsafe abortions persist as a significant threat to women's well-being and lives.¹ Furthermore, the prevalence of unsafe abortions is an indication of the fact that there is still a huge gap in the provision of family planning services and contraception.² This situation is particularly pronounced among adolescents and young adults, where 57% of unsafe abortions in sub-Saharan Africa occur within the 15-24 age group, a proportion higher than in other regions.² The National Demographic Health Survey (NDHS, 2018), reported that sexual activity determines the extent to which women are exposed to the risk of pregnancy. Sexual activity timing and circumstances have profound consequences on the lives of women, regardless of their important role in fertility levels.³ The prevalence of sexual activity among young adults during their college years as documented in some studies done in Nigeria ranges from 25.4% to 93.6%.⁴⁻¹¹ Furthermore, according to some research conducted in Nigeria, 17.3%-92.6 % of female undergraduates undergo induced abortions.^{4, 11-13} In Ethiopia, a study also documented a high prevalence of abortion among undergraduates (93.7%).¹⁴

Unsafe abortions are associated with health risks,¹ such as death and various complications including septicaemia, anaemia, peritonitis, haemorrhages, and uterine perforation.^{15,16} Some of these complications occur due to delayed interventions and lack of post-abortion care and contraception counseling.¹ Studies have documented marital status,^{17,18} age at initiation of sexual activity,¹⁸ religion,^{17,19} and lack of sexual health education²⁰ as determinants of induced abortion.

Young adults experience greater independence and diverse social interactions when they are in the university, often exploring their sexuality. This self-discovery can lead to various sexual behaviours, some with implications for sexual and reproductive health, including induced abortion.¹

Unsafe abortion numbers could rise, if access to safe abortion care, access, contraception, and women's empowerment are not prioritized. Preventable as they are, unsafe abortions still jeopardize women's health and lives.¹ Therefore, this study assessed the prevalence and the socio-demographic determinants of sexual activity and induced abortion among female undergraduates in Imo State, Nigeria. Understanding the predictors of sexual activity and induced abortion among female undergraduates is crucial for designing targeted interventions to improve sexual health outcomes in this vulnerable population.

Methodology

Study Area

Imo state is one of the 36 States of Nigeria located in the South-east region of the country. Owerri is its capital and the largest town in the State followed by Orlu and Okigwe. Imo state has several institutions of higher learning including private, State and Federal government-owned institutions such as Imo State University Owerri, Federal University of Technology Owerri, Federal Polytechnic Nekede, University of Agriculture and Environmental Sciences Umuagwo, Eastern Palm University Ogboko, Hezekiah University Umudi, Imo State Polytechnic Omuma, Alvan Ikoku College of Education and several Schools of Nursing and Health Sciences scattered around the state.

Study design

This was a school-based cross-sectional study carried out from March to September, 2021.

Study population

The study population comprised female undergraduate students of reproductive age (15-49 years) in the selected tertiary institutions in Imo State. Respondents with medical conditions such as neurocognitive impairments and disabilities that will could limit their ability to communicate were excluded from the study.

Sample size determination

The sample size that was used for the study was calculated using the Cochran's formula for descriptive studies in populations greater than 10,000.²¹

$$n = (Z^2 pq) / d^2$$

Where; n = the minimum sample size, Z = the normal standard deviate for a level of confidence set at 1.96 corresponding to a confidence level of 95.0%, p = proportion of female undergraduates in tertiary institutions that were currently sexually active in a closely related study carried out in Imo, South-east of Nigeria (47.3%),²² q = 1-p. therefore, q = 1-0.473= 0.527
d = degree of accuracy desired (error margin) = 5% (0.05)

$$n = ([(1.96)]^2 \times 0.473 \times 0.527) / [(0.05)]^2$$

However, 500 respondents were enrolled and studied. This covered for attrition rate and other unexpected circumstances.

Sampling Technique

The A multi-stageing sampling technique was used to select the respondents. In the first stage, the higher institutions were stratified into categories A, B and C as follows; category A as Universities, category B as Polytechnics and category C as Monotechnics/Colleges of Education. In the second stage, simple random sampling by balloting was used to select one institution from each of the categories. In the third stage, using simple random sampling technique by balloting, a total of thirteen faculties and twenty-six departments were selected from each of the selected institution. The final stage involved the selection of study participants that were interviewed. This was done by first stratifying them into years of study in selected institutions, faculties and departments ranging from year 1 to 6 (clusters) and using proportionate simple random sampling based on the population size of each class level, the participants were selected and interviewed until the required sample size was obtained.

Data Collection

Data was collected using a pretested, semi-structured, self-administered questionnaire developed from the review of relevant literatures. It contained two sections as follows; : section A: Socio-demographic characteristics of participants e.g. age, religion, residence, etc. and section B: Reproductive and sexual health history of participants.

Data Analysis

Data was cleaned manually and analysed using the computer software; : Statistical Product and Service Solutionsackagefor Social Sciences (SPSS) version 26.0, produced by International Business Machines Corporations (IBM), USA. The information obtained was were presented in as summary indices, frequency tables and percentages where necessary. Chi-square/Fisher's exact test and bivariable multilevel logistic regression analysis analyses were used to identify the determinants of sexual activity and practice of abortion among the women. A p-value of ≤ 0.05 significance level was considered significant.

Ethical approval

Approval for the study was obtained from the Ethics Committee of the Department of Community Medicine, Madonna University Nigeria and the management of the various institutions where the study was conducted. All participants gave verbal consent after detailed explanation of the purpose of the study. Participants were assured of the confidentiality of their responses during and after the data collection and their right to refuse or withdraw from the study.

2.5 Data collection materials and analysis

Each eligible and consenting mother/caregiver was recruited and responses elicited from them using a pretested, semi-structured, interviewer administered questionnaire developed from the review of relevant literatures. All questionnaires were written in English language and pretested on similar set of mothers/caregiver in another health facility outside the study area. This was done, to check for the reliability, validity, appropriateness of format, wording and time needed to fill the questionnaire. The pre-test was carried out among 60 mothers/caregivers which represent 10 percent of the sample size. They were administered with the help of trained research assistants who were medical students in their final year of study and they were trained for 2 days by the researchers. The questionnaire comprised four sections: The first section obtained responses about the socio-demographic/economic characteristics of the respondents; the second section obtained information on awareness and knowledge about herbal medicine use; the third section elicited responses on the attitude of the care-givers towards herbal medicine use in the treatment of under-five ailments while the fourth section elicited responses on the prevalence, pattern/types and reported side effects of herbal medicine use.

Data collected were cleaned and validated manually, while a computer software package [Statistical Product and Service Solutions (SPSS) IBM version 22] was used for data entry and analysis. Attitude was scored using Likert scale of 1 to 5 graded in order of correctness. A total of 20 Likert scale questions were asked with a maximum score of 100. Scores of $\leq 60\%$ were graded as negative (poor) attitude while $>60\%$ were graded as positive (good) attitude. Frequencies, percentages and graphical presentation of relevant variables were generated.

2.6 Ethical approval

Ethical approval was obtained from the Ethics Committee of Imo State University Teaching Hospital, Orlu, Imo State, Nigeria, prior to the commencement of the study. Also permissions were gotten from the Heads of the various institutions that were used or their representatives. Before the questionnaires were administered to the eligible participants, the concept of the study was carefully explained to each of them and verbal consent obtained from all the participants. Their confidentiality of each participant was maintained by giving code number to each enrollee rather than identifying them by their names. All the Authors hereby declare that the study was performed in accordance with the ethical standards outlined in the 1964 Declaration at Helsinki.

Results

Socio-demographic characteristics of the respondents

The mean age of the respondents was 20.3 ± 0.9 years with most of them being less than 25 years of age (73.4%). Majority of the respondents were singles (82.2%), from Igbo ethnic nationality (78.8%), attended of the Catholic Christian denomination (50.4%), lived in school hostels (45.0%), were sponsored in school by their parents (78.4%), were full-time students (89.8%), and were studying medical-ly/health- related courses (57.2%). A slightly higher proportion of the students were at their 400 level of study (24.2%), with about half of them sharing their rooms with other female counterparts (52.0%).

Nearly one-thirds of the students claimed that they earned an income (35.8%) and of those , who earned, about 41.4% earned a monthly income of less than 20,000 Naira (13.348 USD). Nevertheless, majority of the students (79.6%) reported a normal personal income expenditure status. Majority of the students attended mixed secondary schools (68.0%), which were privately owned (47.4%). Most of the students came from monogamous homes (91.0%) and majority of their parents were currently married and living together (84.4%). The average family size of their immediate family was 3.9 ± 0.3 with more of them being first-borns' among their siblings (32.4%). Majority of their fathers' (68.2%) and mothers' (69.4%) had tertiary education. The commonest occupation of their fathers and mothers was civil service; 31.6% and 36.0% respectively. For those ever-married, majority of them had ≤ 4 children (93.3%), ≤ 2 males (93.3%), and spouses had tertiary education (87.6%). The mean age at first union and years of union were 21.3 ± 1.4 years and 4.99 ± 0.95 years respectively. (Table 1)

Prevalence of sexual activity, contraceptive use and induced abortion among the respondents

The prevalence of sexual activity (penetrative penile/vaginal intercourse) in the last one year, last six months and last three months preceding the study were 44.4%, 37.4% and 30.8% respectively. Nearly one-fifth of the sexually active women (24.3%) claim to have sex always and majority of them have one sexual partner (77.5%). Life-time use of contraceptives among the sexually active in the last one year was high (90.5%) but current and consistent use of contraceptives among them was low (41%).

About 19.4% of the students had ever been pregnant in their life-time with only 4.6% of them being currently pregnant. Only 8.4% of the students have carried out an induced abortion previously and their commonest reason for carrying out the act was "it was an unplanned pregnancy" (61.9%). About 14.2% of the students had given birth previously and majority of those that have given birth still desire to have more children (87.3%). (Table 2)

Predictors Determinants of sexual activity among the respondents

The highest predictors of sexual activity/debut in the last one year preceding the study were; age 30 years and above (OR=7.67, 95% CI: 3.28-17.90), being an ever-married student (OR=19.39, 95% CI: 9.12-41.23), of the Hausa tribe (OR=8.87, 95% CI: 2.54-30.94), attending Islam or traditional religion (OR=8.72, 95% CI: 2.52-30.24), living with a male partner (OR=65.12, 95% CI: 15.02-282.33), being sponsored in school by partner/spouse (OR=22.39, 95% CI: 2.90-172.93), being a part-time student (OR=9.57, 95% CI: 4.21-21.72), studying in a non-medical related faculty (OR=1.82, 95% CI: 1.27-2.60), in 600 level of study (OR=14.06, 95% CI: 5.74-34.46), sharing room with a male partner (OR=23.46, 95% CI: 8.16-67.46), earning an income (OR=4.37, 95% CI: 2.96-6.45), monthly income above ₦50,000 (OR=6.63, 95% CI: 2.52-17.48), personal income greater than the expenditure (OR=2.16, 95% CI: 1.26-3.79), mother attaining primary school education (OR=3.57, 95% CI: 1.53-8.32), staying/living with father only (OR=3.46, 95% CI: 1.32-9.09) and coming from a family >8 children (OR=8.82, 95% CI: 1.19-12.28). Nevertheless students whose mothers were artisans by occupation had the least likelihood of having sexual activity in the last one year preceding the study (OR=0.14, 95% CI: 0.03: 0.03-0.64). (Table 3)

The highest predictors of sexual activity/debut in the last six months preceding the study were; age 30 years and above (OR=10.54, 95% CI: 4.45-24.96), being an ever married student (OR=22.16, 95% CI:11.10-44.35), of the Hausa tribe (OR=11.89, 95% CI:3.40-41.57), attending Islam or traditional religion (OR=9.33, 95% CI:3.04-28.45), living with a male partner (OR=41.24, 95% CI:14.79-115.03), being sponsored in school by partner/spouse (OR=29.82, 95% CI:3.86-230.59), being a part-time student (OR=6.60, 95% CI:3.36-13.00), studying in a non-medically related faculty (OR=1.68, 95% CI:1.17-2.43), in 600 level of study (OR=14.97, 95% CI: 5.86-38.27), sharing room with a male partner (OR=22.36, 95% CI: 9.07-55.10), earning an income (OR=3.40, 95% CI: 2.32-5.00), monthly income above ₦50,000 (OR=3.77, 95% CI:1.73-8.20), personal income being greater than the expenditure (OR=2.80, 95% CI:1.17-6.70), mother attaining primary school education (OR=2.81, 95% CI:1.28-6.20), staying/living with father only (OR=3.01, 95% CI:1.22-7.42) and coming from a family size >8 children (OR=4.00, 95% CI:1.35-12.01). Nevertheless students whose mothers were artisans by occupation had the least likelihood of having sexual activity in the last six months preceding the study (OR=0.26, 95% CI:0.07: 0.07-0.97). Table 4

The highest predictors of sexual activity/debut in the last three months preceding the study were; age 30 years and above (OR=11.68, 95% CI:4.96-27.51), being an ever married student (OR=15.59, 95% CI:8.81-27.58), of the Hausa tribe (OR=11.64, 95% CI:3.77-35.92), attending Islam or traditional religion (OR=10.65, 95% CI:3.77-30.06),

living with a male partner (OR=40.77, 95% CI:15.85-104.82), being sponsored in school through scholarship (OR=9.78, 95% CI:3.46-27.64), being a part-time student (OR=6.73, 95% CI:3.56-12.74), studying in a non-medically related faculty (OR=1.56, 95% CI:1.08-2.32), in 400 level of study (OR=10.61, 95% CI: 4.30-26.21), sharing room with a male partner (OR=18.16, 95% CI: 8.43-39.10), earning an income (OR=4.24, 95% CI: 2.83-6.33), monthly income above ₦50,000 (OR=8.10, 95% CI:3.53-18.59), personal income greater than the expenditure (OR=3.03, 95% CI:1.16-7.91), mother attaining primary school education (OR=3.85, 95% CI:1.31-6.21), staying/living with father only (OR=4.24, 95% CI:1.71-10.48), coming from a family size >8 children (OR=3.96, 95% CI:1.37-12.24), attended girls only secondary school (OR=1.57, 95% CI:1.05-2.34) and attended a public secondary school (OR=1.89, 95% CI:1.19-2.86). Nevertheless students whose mothers were artisans by occupation had the least likelihood of having sexual activity in the last three months preceding the study (OR=0.14, 95% CI:0.03: 0.03-0.70). Although birth order was not generally significant on bivariate analysis, children in 4th position among siblings were more likely to be sexually active than their counterparts in other positions of birth (OR=1.88, 95% CI:1.07: 1.07-3.29).Table 5

Determinants Predictors of induced abortion among the respondents

The highest predictors of life-time experience of induced abortion were; age 30 years and above (OR=14.46, 95% CI:4.50-42.22),being an ever-married student (OR=4.59, 95% CI:2.37-8.85), of the Yoruba ethnic nationality (OR=4.69, 95% CI:2.27-9.71),attending traditional religion

(OR=18.38, 95% CI:2.40-141.10), living with a partner (OR=19.00, 95% CI:4.14-87.16), self- sponsorship in school (OR=13.89, 95% CI:5.94-32.45), being a part-time student (OR=5.68, 95% CI:2.76-11.74), studying in a non-medically related faculty (OR=3.29, 95% CI:1.67-6.50), at ≥ 300 level of study (OR=2.75, 95% CI: 1.24-6.08), sharing room with a male partner (OR=4.06, 95% CI: 1.64-10.00), earning an income (OR=2.61, 95% CI: 1.37-4.95), monthly income above ₦50,000 (OR=2.98, 95% CI:1.01-8.85), personal income greater than the expenditure (OR=3.44, 95% CI:1.63-7.27), being from a polygamous family type (OR=3.78, 95% CI:1.71-8.32), father attaining primary school education (OR=6.13, 95% CI:2.50-15.00), mother not attaining any form of formal education (OR=7.83, 95% CI:2.69-22.78), staying/living with father only (OR=9.37, 95% CI:3.57-24.63), born to a family with size > 8 children (OR=5.20, 95% CI:1.52-17.81), attended a public/government owned secondary school (OR=3.13, 95% CI:1.49-6.56) and number of years in union > 5 years (OR=3.60, 95% CI: 1.22-10.54). However, students whose fathers (OR=0.14, 95% CI: 0.03-0.62) and mothers (OR=0.07, 95% CI:0.02: 0.02=0.25) were professionals' by occupation were found to have the least likelihood of experiencing an induced abortion in their life-time. Table 6

Discussion

The prevalence of sexual activity reported in this study was slightly higher than the prevalence rate reported but somewhat lower than the prevalence reported in Osun state (25.4%)⁶ but lower than that reported in and Ekiti State (53.8%)¹², s in Nigeria. where 25.4%⁶ and 53.8%¹² reported sexual activity respectively.

However, in Uganda a higher proportion, 62.1% was reported.²³ It is possible that disparities in sexual debut levels can be explained by factors such as evolving knowledge of sexual and reproductive health over time or by religious and cultural viewpoints regarding sexual activities before marriage.²³ Despite the differences in the prevalence, the figures suggest that a considerable proportion of female undergraduates in Nigeria are sexually active, indicating the urgency of addressing sexual health issues in this population.

In contrast to our study that reported low prevalence of induced abortion (8.4%), high rates were reported in studies done in other parts of Nigeria precisely Ekiti State (81.1%)¹² and Osun State, (92.6%)¹³, Ethiopia (82%)²⁴ and China 54.6%.²⁵ This low prevalence rate reported in this study could be due to underreporting by the participants or that the participants used appropriate preventive practices against getting pregnant. Also to note is that the prevalence rate of sexual activity and ever being pregnant among the undergraduates, was observed to be low in this study when compared other studies and this could account for the variation observed.

Despite the low prevalence noted in this study, access to secure contraception and safe abortion services should be improved,² as induced abortion can contribute to maternal morbidity and mortality.^{15,16}

Though majority of the respondents reported having ever used contraceptives within the last year preceding the study, a significant proportion indicated they did not use contraceptives consistently.

This compares with studies done in Southwest Nigeria,²⁶ Uganda,²³ and Tanzania^{27,28} where less than half of the respondents were current contraceptive users. This discrepancy between past and current contraceptive use suggests a potential gap in contraceptive adherence and highlights the importance of addressing barriers to consistent contraceptive use among sexually active students. This finding underscores the need for targeted interventions to improve the continuity of contraceptive usage among female undergraduates, as this sustained use is crucial for preventing unintended pregnancies, promoting reproductive health, and reducing potential negative outcomes such as unsafe abortions. The findings from our study highlight the complex interplay of factors that influence sexual activity and induced abortion among female undergraduates in a Nigerian institution. Our study reported age group thirty years and above as a determinant of sexual activity and induced abortion. This finding contrasts with studies that showed that respondents younger than twenty-five years^{24,26} were more likely to be sexually active.²⁶ Regardless of these disparities, age-specific interventions are needed to address sexual activity and induced abortion among female undergraduates in different age groups. A similar study conducted in Nigeria also found that being married was a predictor of induced abortion.¹⁸ Recognizing the association between marital status and induced abortion highlights the significance of tackling reproductive health within marital relationships such as promoting open communication regarding family planning and contraception. Ethnicity was also noted as a determinant of sexual activity and induced abortion, highlighting the need for culturally sensitive interventions that respect and address diverse cultural norms, values, and beliefs concerning sexual debut and induced abortion. Similarly, a study conducted in Northwest

Nigeria also noted that students from non-medical faculties practiced induced abortion at a higher rate than students from other faculties.²⁰ This may be linked to poor knowledge of contraceptive methods and inadequate sexual health education as compared to medical students.²⁰ Incorporating comprehensive sexual health education within academic curricula can promote informed reproductive decision-making. Comparable to our study, earning enough income was significantly associated with induced abortion among female undergraduates in Ethiopia.²⁹ This could be because female undergraduates with adequate personal income may be more likely to consider abortion due to their enhanced financial independence. Also similar to our study adolescents that were not living with both parents were more likely to engage in sexual activity in a study done in Anambra State, Southeastern Nigeria.³⁰ Living with a single parent might lead to poor supervision and guidance which can lead to greater autonomy to engage in such behaviours if there is less parental oversight. Lower levels of caregivers education was also identified as a predictor of sexual debut and induced abortion, suggesting a potential lack of knowledge about sexual and reproductive health among caregivers that may leave their children ill-prepared to make informed decisions regarding sexual activity, contraception, and abortion. In our study, living with a male partner as a determinant of sexual debut and induced abortion may be because sharing a living space with a male partner often provides increased privacy and intimacy, which can lead to a higher likelihood of engaging in sexual activities. This increased intimacy can also facilitate easier access to contraception, potentially resulting in inconsistent contraceptive use, which, in turn, can lead to unintended pregnancies and, subsequently, induced abortion.

Conclusion

This study findings underscore the importance of considering diverse socio-demographic factors when designing targeted interventions and reproductive health programs for female undergraduates. Tailored approaches should address the unique challenges and circumstances faced by students in various age groups, marital statuses, ethnic backgrounds, and religious affiliations. Additionally, providing comprehensive sexual health education, access to contraception, and support services for students living with partners are essential components of promoting safe and informed sexual behaviours and reducing the incidence of induced abortion within this population

Limitations

The main limitation of this study pertains to its limited generalizability, given that it was conducted in a single location. Independent predictors could not be deduced due to the level of analysis conducted, thus cofounders could exist. Thus, the findings might not be applicable to female undergraduates in other regions of the country. Additionally, there is a potential for participants to have provided less-than-accurate information regarding their sexual behaviours and abortion experiences, possibly influenced by social desirability bias or a reluctance to discuss sensitive topics.

Authors' contributions

CBD and OI contributed to the study design and the data collection, performed the data analysis, interpreted the result and drafted the manuscript. All other authors contributed to the study design, data collection and critical revision of the manuscript. All authors read and approved the final manuscript.

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Competing interest

The authors hereby declare no competing interest.

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Tables

Table 1: Socio-demographic Characteristics of Participants

VARIABLES	FREQUENCY	PERCENTAGE
Age group yrs (N=500) [Mean age= 20.3 ± 0.9yrs]		
<20	164	32.8
21-24	203	40.6
25-29	101	20.2
>30	32	6.4
Total	500	100
Marital status (N=500)		
Never Married	411	82.2
Ever married	89	17.8
Total	500	100
Tribe (N=500)		
Igbo	394	78.8
Hausa	19	3.8
Yoruba	60	12.0
Others ¹	27	5.4
Total	500	100
Religion (N=500)		
Catholic	252	50.4
Pentecostal	179	35.8
Orthodox	47	9.4
Muslim	18	3.6
Traditional	4	0.8
Total	500	100
Place of stay (N=500)		
School Hostel	225	45.0
Lives with Parents	116	23.2
Lives in rented apartment with others	61	12.2
Lives with partner	56	11.2
Lives with relatives	23	4.6
Lives in rented apartment alone	19	3.8
Total	500	100
Type of sponsorship in school (N=500)		
Parents	392	78.4
Relatives	39	7.8
Self	35	7.0
Scholarship	20	4.0
Partner	10	2.0
Spouse	4	0.8
Total	500	100
Type of student/academic activity (N=500)		
Full Time	449	89.8
Part Time	51	10.2
Total	500	100
Faculty of study (N=500)		

Medicine and related Faculties	286	57.2
Non- Medicine related	214	42.8
Total	500	100
Level of study (N=500)		
100	85	17.0
200	103	20.6
300	68	13.6
400	121	24.2
500	77	15.4
600	46	9.2
Total	500	100
Person(s) shared room with (N=500)		
Sharing with other females	260	52.0
Alone in a room	174	34.8
share room with a male partner/spouse	48	9.6
Attaching with someone	18	3.6
Total	500	100
Earning any income		
Yes	179	35.8
No	321	64.2
Total	500	100
Average monthly income in naira (₦) n= 179, Median= ₦29,958.10 ± ₦3,720.76		
<20,000	74	41.3
20,000- 50,000	57	31.8
>50,000	48	26.8
Total	179	100
Personal income/expenditure status (N=500)		
Normal	398	79.6
Excess	64	12.8
Deficient/less	38	7.6
Total	500	100
Type family/parents' marriage (N=500)		
Monogamous	455	91.0
Polygamous	45	9.0
Total	500	100
Educational status of father (=500)		
None	14	2.8
Primary	37	7.4
Secondary	108	21.6
Tertiary	341	68.2
Total	500	100
Educational status of mother (N=500)		
None	20	4.0
Primary	28	5.6
Secondary	105	21.0
Tertiary	347	69.4
Total	500	100
Marital status of parents (N=500)		

Married Living Together	422	84.4
Married not Living together (staying with mother)	29	5.8
Separated/Divorced/Widowed	28	5.6
Married not Living together (staying with father)	21	4.2
Total	500	100
Number of sibling of parents/ family size (N=500), Mean:3.9± 0.3		
<4	306	61.2
5- 8	179	35.8
>8	15	3.0
Total	500	100
Position among sibling (N=500)		
1 st	162	32.4
2nd	116	23.2
3rd	82	16.4
≥4th	77	15.4
Last	63	12.6
Total	500	100
Occupation of father (N=500)		
Civil Servant	158	31.6
Professional	150	30.0
Trader	141	28.2
Unemployed	25	5.0
Artisan	15	3.0
Clergy	6	1.2
Retired	5	1.0
Total	500	100
Occupation of mother (N=500)		
Civil Servant	180	36.0
Trader	170	34.0
Professional	95	19.0
Unemployed/House wife	36	7.2
Artisan	15	3.0
Retired	4	0.8
Total	500	100
Form of secondary school attended (N=500)		
Mixed	340	68.0
Girls school only	160	32.0
Total	500	100
Type of secondary school attended (N=500)		
Private School	237	47.4
Public School	147	29.4
Mission School	116	23.2
Total	500	100
No of living children for ever married only (n=89)		
≤4	83	93.3
>4	6	6.7
Total	89	100
No of males children for ever married only (n= 89)		
≤2	83	93.3
>2	6	6.7
Total	89	100

Age at first union for ever married only (n=89), Mean age at first union= 21.3 ± 1.4		
<20	17	19.1
20- 25	55	61.8
>25	17	19.1
Total	89	100
No of years in union for ever married only (n= 89), Mean years in union= 4.99 ± 0.95		
≤5	67	75.3
>5	22	24.7
Total	89	100
Educational level of spouse for ever married only (n=89)		
≤Secondary	11	12.4
Tertiary	78	87.6
Total	89	100

Others¹= Esan, Ijaw, Gwari, Edo, Igala, itsekiri, Ibibio, Nupe, Efik, Ogoni, Ika, Annang, Urhobo

Table 2: Reproductive and Sexual Health History of Participants

VARIABLES	FREQUENCY	PERCENTAGE
Had penetrative (penile/vaginal) sexual intercourse in the last one year (n=500)		
Yes	222	44.4
No	278	55.6
Total	500	100
Had penetrative (penile/vaginal) sexual intercourse in the last six months (n=500)		
Yes	187	37.4
No	313	62.6
Total	500	100
Had penetrative (penile/vaginal) sexual intercourse in the last three months (n=500)		
Yes	154	30.8
No	346	69.2
Total	500	100
Frequency of sexual activity in the last one year (n= 222)		
Always	54	24.3
Twice/Thrice a week	52	23.4
Once a week	23	10.4
Monthly	65	29.3
Rarely	28	12.6
Total	222	100
Number of sexual partners in the last one year (n= 222)		
1	172	77.5
2	23	10.4
>2	27	12.2
Total	222	100
Ever use of contraceptive among the sexually active in the last one year (n=222)		
Yes	201	90.5
No	21	9.5
Total	222	100
Current/consistent use of contraceptives among sexually active in the last one year (n=500)		
Yes	91	41.0
No	131	59.0
Total	222	100
Have you ever been pregnant? (n=500)		

Yes	97	19.4
No	403	80.6
Total	500	100
Are you currently pregnant? (n=500)		
Yes	23	4.6
No	477	95.4
Total	500	100
Want this pregnancy? (n= 23)		
Wanted it now	8	34.8
Wanted it later	7	30.4
I am not sure	8	34.8
Total	23	100
Have you ever had an induced abortion? (n=500)		
Yes	42	8.4
No	458	91.6
Total	500	100
Reason(s) for carrying out the abortion** (n= 42)		
Unplanned Pregnancy	26	61.9
Fear of what will happen to me	14	33.3
I was too Young	9	21.4
Through illegitimate Relationship	7	16.7
Family Pressure	6	14.3
Have you ever given birth before? (n=500)		
Yes	71	14.2
No	429	85.8
Total	500	100
Do you desire for more children? (n=71)		
Yes	62	87.3
No	8	11.3
I don't know	1	1.4
Total	71	100

**=Multiple response

Table 3: Socio-demographic determinants of sexual activity/debut in the last one year

VARIABLES	HAD SEX IN THE LAST ONE YEAR			χ^2/p -value	OR:95% CI
	YES (%)	NO (%)	TOTAL (%)		
AGE					
<20	41(25.0)	123(75.0)	164(100)	46.198 p<0.001*	1.00
21-24	97(47.8)	106(52.2)	203(100)		2.75*(1.75-4.30)
25-29	61(60.4)	40(39.6)	101(100)		4.58*(2.69-7.80)
≥30	23(71.9)	9(28.1)	32(100)		7.67*(3.28-17.90)
Total	222(44.4)	278(55.6)	500(100)		
MARITALSTATUS					
Never Married	141(34.3)	270(65.7)	411(100)	95.289 p<0.0010*	1.00
Ever Married	81(91.0)	8(9.0)	89(100)		19.39*(9.12-41.23)
Total	222(44.4)	278(55.6)	500(100)		
TRIBE					
Igbo	148(37.6)	246(62.4)	394(100)	40.612	1.00

Hausa	16(84.2)	3(15.8)	19(100)	p<0.0010*	8.87*(2.54-30.94) 4.57*2.49-8.39) 1.79 (0.82-3.91)
Yoruba	44(73.3)	16(26.7)	60(100)		
Others	14(51.9)	13(48.1)	27(100)		
Total	222(44.4)	278(55.6)	500(100)		
RELIGION				16.893 p=0.002*	1.00 1.11 (0.60-2.08) 1.02 (0.69-1.50) 8.72*(2.52-30.24)
Catholic	106(42.1)	146(57.9)	252(100)		
Orthodox	21(44.7)	26(55.3)	47(100)		
Pentecostal	76(42.5)	103(57.5)	179(100)		
Muslim/Traditional	19(86.4)	3(13.6)	22(100)		
Total	222(44.4)	278(55.6)	500(100)		
PLACE OF STAY				85.389 p<0.0010*	1.00 1.36 (0.84-2.20) 6.75*(2.26-20.22) 2.19*(1.15-4.15) 1.86 (0.74-4.64) 65.12*(15.02-282.33)
Lives with Parents	34(29.3)	82(70.7)	116(100)		
School Hostel	81(36.0)	144(64.0)	225(100)		
Rented apartment alone	14(73.7)	5(26.3)	19(100)		
Rented apartment with others	29(47.5)	32(52.5)	61(100)		
Lives with relatives	10(43.5)	13(56.5)	23(100)		
Lives with partner	54(96.4)	2(3.6)	56(100)		
Total	222(44.4)	278(55.6)	500(100)		
TYPE OF SPONSORSHIP				63.790 p<0.0010*	1.00 1.33 (0.68-2.59) 9.76*(2.81-33.88) 13.35*(4.62-38.58) 22.39*(2.90-172.93)
Parents	144(36.7)	248(63.3)	392(100)		
Relatives	17(43.6)	22(56.4)	39(100)		
Scholarship	17(85.0)	3(15.0)	20(100)		
Self	31(88.6)	4(11.4)	35(100)		
Partner/Spouse	13(92.9)	1(7.1)	14(100)		
Total	222(44.4)	278(55.6)	500(100)		
TYPE OF STUDENT				40.340 p<0.0010*	1.00 9.57*(4.21-21.72)
Full Time	178(39.6)	271(60.4)	449(100)		
Part Time	44(86.3)	7(13.7)	51(100)		
Total	222(44.4)	278(55.6)	500(100)		
FACULTY OF STUDY				10.116 p<0.001*	1.00 1.82*(1.27-2.60)
Medical related	109 (38.1)	177(61.9)	286 (100)		
Non-Medical related	113(52.8)	101(47.1)	214(100)		
Total	222(44.4)	278(55.6)	500(100)		
LEVEL OF STUDY				74.597 p<0.0010*	1.00 3.23*(1.47-7.06) 8.95*(3.97-20.21) 13.13*(6.16-27.97) 6.94*(3.13-15.39) 14.06*(5.74-34.46)
100	10(11.8)	75(88.2)	85(100)		
200	31(30.1)	72(69.9)	103(100)		
300	37(54.4)	31(45.6)	68(100)		
400	77(63.6)	44(36.4)	121(100)		
500	37(48.1)	40(51.9)	77(100)		
600	30(65.2)	16(34.8)	46(100)		
Total	222(44.4)	278(55.6)	500(100)		
PERSON(S) SHARED ROOM WITH					
Sharing with other female(s)	83(31.9)	177(68.1)	260(100)	62.745 p<0.0010*	1.00 2.18*(1.47-3.24) 23.46*(8.16-67.46) 1.36 (0.51-3.63)
Alone in a room	88(50.6)	86(49.4)	174(100)		
Sharing with a male partner	44(91.7)	4(8.3)	48(100)		
Attaching with someone	7(38.9)	11(61.1)	18(100)		
Total	222(44.4)	278(55.6)	500(100)		

EARNING AN INCOME					
Yes	120(67.0)	59(33.0)	179(100)	56.467	4.37*(2.96-6.45)
No	102(31.8)	219(68.2)	321(100)	p<0.0010*	1.00
Total	222(44.4)	278(55.6)	500(100)		
MONTHLY INCOME(₹) n=179					
<20,000	38(51.4)	36(48.6)	74(100)	17.120	1.00
20,000-50,000	40(70.2)	17(29.8)	57(100)	p<0.0010*	2.23*(1.08-4.62)
>50,000	42(87.5)	6(12.5)	48(100)		6.63*(2.52-17.48)
Total	120(67.0)	59(33.0)	179(100)		
PERSONAL INCOME/EXPENDITURE STATUS					
Normal	167(42.0)	231(58.0)	398(100)	8.131	1.00
Deficient/Less	16(42.1)	22(57.9)	38(100)	p=0.017*	1.01 (0.51-1.97)
Excess	39(60.9)	25(39.1)	64(100)		2.16*(1.26-3.70)
Total	222(44.4)	278(55.6)	500(100)		
TYPE OF FAMILY					
Monogamous	199(43.7)	256(56.3)	455(100)	0.902	1.00
Polygamous	23(51.1)	22(48.9)	45(100)	p=0.342	1.35 (0.73-2.48)
Total	222(44.4)	278(55.6)	500(100)		
EDUCATIONAL STATUS OF FATHER					
None	7(50.0)	7(50.0)	14(100)	2.862	1.29 (0.44-3.75)
Primary	21(56.8)	16(43.2)	37(100)	p=0.413	1.70 (0.85-3.35)
Secondary	45(41.7)	63(58.3)	108(100)		0.92 (0.59-1.43)
Tertiary	149(43.7)	192(56.3)	341(100)		1.00
Total	222(44.4)	278(55.6)	500(100)		
EDUCATIONAL STATUS OF MOTHER					
None	12(60.0)	8(40.0)	20(100)	11.693	2.14 (0.85-5.34)
Primary	20(71.4)	8(28.6)	28(100)	p=0.009*	3.57*(1.53-8.32)
Secondary	47(44.8)	58(55.2)	105(100)		1.16 (0.75-1.80)
Tertiary	143(41.2)	204(58.8)	347(100)		1.00
Total	222(44.4)	278(55.6)	500(100)		
MARITAL STATUS OF PARENTS					
Living Together	177(41.9)	245(58.1)	422(100)	10.267	1.00
Separated/Divorced	17(60.7)	11(39.3)	28(100)	p=0.016*	2.14 (0.97-4.68)
Living with Father	15(71.4)	6(28.6)	21(100)		3.46*(1.32-9.09)
Living with Mother	13(44.8)	16(55.2)	29(100)		1.13 (0.53-2.40)
Total	500(100)	278(55.6)	500(100)		
NUMBER OF SIBLINGS/FAMILY SIZE					
≤4	128(41.8)	178(58.2)	306(100)	6.186	1.00
5-8	83(46.4)	96(53.6)	179(100)	p=0.035*	1.20 (0.85-1.80)
>8	11(73.3)	4(26.7)	15(100)		8.82*(1.19-12.28)
Total	222(44.4)	278(55.6)	500(100)		
POSITION AMONG SIBLINGS					
1 st	71(43.8)	91(56.2)	162(100)	6.209	1.00
2 nd	50(43.1)	66(56.9)	116(100)	p=0.286	0.97 (0.60-1.57)
3 rd	35(42.7)	47(57.3)	82(100)		0.95 (0.56=1.62)
≥4 th	43(55.8)	34(44.2)	77(100)		1.62 (0.84-2.80)
Last	23(36.5)	40(63.5)	63(100)		0.74 (0.41-1.34)
Total	222(44.4)	278(55.6)	500(100)		
OCCUPATION OF FATHER					

Unemployed	13(52.0)	12(48.0)	25(100)	10.893	1.00
Trader/Businessman	64(45.4)	77(54.6)	141(100)	p=0.143	0.77 (0.33-1.80)
Artisan	9(60.0)	6(40.0)	15(100)		1.39 (0.38-5.07)
Civil Servant	73(46.2)	85(53.8)	158(100)		0.79 (0.34-1.85)
Professional	61(40.7)	89(59.3)	150(100)		0.63 (0.27-1.48)
Retired/Clergy	2(18.2)	9(81.8)	11(100)		0.21 (0.04-1.15)
Total	222(44.4)	278(55.6)	500(100)		
OCCUPATION OF MOTHER					
Unemployed	26(72.2)	10(27.8)	36(100)	17.815	1.00
Trader/Businesswoman	77(45.3)	93(54.7)	170(100)	p=0.005*	0.32*(0.15-0.70)
Artisan	4(26.7)	11(73.3)	15(100)		0.14*(0.03-0.64)
Civil Servant/pensioner	73(40)	111(60.0)	184(100)		0.25*(0.12-0.56)
Professional	42(44.2)	53(55.8)	95(100)		0.31*(0.13-0.70)
Total	222(44.4)	278(55.6)	500(100)		
TYPE OF SECONDARY SCHOOL ATTENDED					
Girls school only	73(45.6)	87(54.4)	160(100)	0.143	1.00
Mixed	149(43.8)	191(56.2)	340(100)	p=0.705	0.93 (0.64-1.36)
Total	222(44.4)	278(55.6)	500(100)		
FORM OF SECONDARY SCHOOL ATTENDED					
Public School	73(49.7)	74(50.3)	147(100)	2.549	1.00
Private School	98(41.4)	139(58.6)	237(100)	p=0.280	0.72 (0.47-1.08)
Mission School	51(44.0)	65(56.0)	116(100)		0.80 (0.49-1.30)
Total	222(44.4)	278(55.6)	500(100)		
NUMBER OF CHILDREN (n=89)					
0≤4	75(90.4)	8(9.6)	83(100)	F=0.558	NA
>4	6(100)	0(0)	6(100)	p=1.00	
Total	81(91.0)	8(9.0)	89(100)		
NUMBER OF MALES (n=89)					
0-2	75(90.4)	8(9.6)	83(100)	F=0.558	NA
>2	6(100)	0(0)	6(100)	p=1.00	
Total	81(91.0)	8(9.0)	89(100)		
AGE AT FIRST UNION (n=89)					
<20	15(88.2)	2(11.8)	17(100)	F=0.476	NA
≥20	66(91.6)	6(8.2)	72(100)	p=0.645	
Total	81(91.0)	8(9.0)	89(100)		
NUMBER OF YEARS IN UNION (n=89)					
<5	59(88.1)	8(11.9)	67(100)	F=0.092	NA
≥5	22(100)	0(0)	17(100)	p=0.192	
Total	81(91.0)	8(9.0)	89(100)		

*=Statistically Significant, F= Fisher Exact, NA= Not applicable

Table 4: Socio-demographic determinants of sexual activity/debut in the last six months

VARIABLES	HAD SEX IN THE LAST SIX MONTHS			χ^2 /p-value	OR: 95% CI
	YES (%)	NO (%)	TOTAL (%)		
AGE					
<20	32(19.5)	132(80.5)	164(100)	47.567	1.00

20-24	80(39.4)	123(60.6)	203(100)	p<0.0010*	2.68*(1.66-4.33)
25-29	52(51.5)	49(48.5)	101(100)		4.37*(2.53-7.580)
≥30	23(71.9)	9(28.1)	32(100)		10.54*(4.45-24.96)
Total	187(37.4)	313(62.6)	500(100)		
MARITAL STATUS					
Never Married	108(26.3)	303(73.7)	411(100)	199.354	1.00
Ever Married	79(88.8)	10(11.2)	89(100)	p<0.0010*	22.16*(11.10-44.35)
Total	187(37.4)	313(62.6)	500(100)		
TRIBE					
Igbo	122(31.0)	272(69.0)	394(100)	40.416 p<0.0010*	1.00
Hausa	16(84.2)	3(15.8)	19(100)		11.89*(3.40-41.57)
Yoruba	37(61.7)	23(38.3)	60(100)		3.59*(2.04-6.30)
Others	12(44.4)	15(55.6)	27(100)		1.78 (0.81-3.92)
Total	187(37.4)	313(62.6)	500(100)		
RELIGION					
Catholic	82(32.5)	170(67.5)	252(100)	22.858 p<0.0010*	1.00
Orthodox	21(44.7)	26(55.3)	47(100)		1.68 (0.88-3.15)
Pentecostal	66(36.9)	113(63.1)	179(100)		1.21 (0.81-1.81)
Muslim/Traditional	18(81.8)	4(18.2)	22(100)		9.33*(3.04-28.45)
Total	187(37.4)	313(62.6)	500(100)		
PLACE OF STAY					
Lives with Parents	23(19.8)	93(80.2)	116(100)	99.270 p<0.0010*	1.00
School Hostel	70(31.1)	155(68.9)	225(100)		1.83*(1.07-3.12)
Rented apartment alone	14(73.7)	5(26.3)	19(100)		11.32*(3.40-34.65)
Rented apartment with others	20(32.8)	41(67.2)	61(100)		1.97 (0.98-3.98)
Lives with relatives	9(39.1)	14(60.9)	23(100)		2.60*(1.00-6.74)
Lives with partner	51(91.1)	5(8.9)	56(100)		41.24*(14.79-115.03)
Total	187(37.4)	313(62.6)	500(100)		
TYPE OF SPONSORSHIP					
Parents	119(30.4)	273(69.6)	392(100)	62.783 p<0.0010*	1.00
Relatives	13(33.3)	26(66.7)	39(100)		1.15 (0.57-2.31)
Scholarship	15(75.0)	5(25.0)	20(100)		6.88*(2.44-19.37)
Self	27(77.1)	8(22.9)	35(100)		7.74*(3.42-17.54)
Partner/spouse	13(92.9)	1(7.1)	14(100)		29.82*(3.86-230.59)
Total	187(37.4)	313(62.6)	500(100)		
TYPE OF STUDENT					
Full Time	148(33.0)	301(67.0)	449(100)	35.194 p<0.0010*	1.00
Part Time	39(76.5)	12(23.5)	51(100)		6.60*(3.36-13.00)
Total	187(37.4)	313(62.6)	500(100)		
FACULTY OF STUDY					
Medicine & related	92(32.2)	194(67.8)	286(100)	7.813 p=0.005*	1.00
Non-Medicine related	95(44.4)	119(55.6)	214(100)		1.68*(1.17-2.43)
Total	187(37.4)	313(62.6)	500(100)		
LEVEL OF STUDY					
100	8(9.4)	77(90.6)	85(100)	62.039 p<0.0010*	1.00
200	25(24.3)	78(75.7)	103(100)		3.09*(1.31-7.26)
300	32(47.1)	36(52.9)	68(100)		8.56*(3.59-20.42)
400	64(52.9)	57(47.1)	121(100)		10.81*(4.80-24.31)
500	30(39.0)	47(61.0)	77(100)		6.14*(2.60-14.52)
600	28(60.9)	18(39.1)	46(100)		14.97*(5.86-38.27)
Total	187(37.4)	313(62.6)	500(100)		

PERSON(S) SHARED ROOM WITH					
Sharing with other females	62(23.8)	198(76.2)	260(100)	74.808 p<0.0010*	1.00
Alone in a room	76(43.7)	98(56.3)	174(100)		2.45*(1.64-3.75)
Sharing with a male partner	42(87.5)	6(12.5)	48(100)		22.36*(9.07-55.10)
Attaching with someone	7(38.9)	11(61.1)	18(100)		2.03 (0.76-5.47)
Total	187(37.4)	313(62.6)	500(100)		
EARNING AN INCOME					
Yes	100(55.9)	79(44.1)	179(100)	39.389 p<0.0010*	3.40*(2.32-5.00)
No	87(27.1)	234(72.9)	321(100)		1.00
Total	187(37.4)	313(62.6)	500(100)		
MONTHLY INCOME(₹) n=179					
<20000	29(39.2)	45(60.8)	74(100)	16.919 p<0.010*	1.00
20,000-50,000	36(63.2)	21(36.8)	57(100)		2.66*(1.30=5.42)
>50000	34(70.8)	14(29.2)	48(100)		3.77*(1.73-8.20)
Total	100(55.9)	79(44.1)	179(100)		
PERSONAL INCOME/EXPENDITURE STATUS					
Excess	32(50.0)	32(50.0)	64(100)	6.493 p=0.039*	2.80*(1.17-6.70)
Normal	145(36.4)	253(63.6)	398(100)		1.61 (0.76-3.40)
Deficient/Less	10(26.3)	28(73.7)	38(100)		1.00
Total	187(37.4)	313(62.6)	500(1000)		
TYPE OF FAMILY					
Monogamous	167(36.7)	288(63.3)	455(100)	1,048 p=0.306	1.00
Polygamous	20(45.5)	25(54.5)	45(100)		1.37 (0.74-2.56)
Total	187(37.4)	313(62.6)	500(100)		
EDUCATIONAL STATUS OF FATHER					
None	5(35.7)	9(64.3)	14(100)	1.086 p=0.780	0.89 (0.29-1.71)
Primary	15(40.5)	22(59.5)	37(100)		1.09 (0.55-2.18)
Secondary	36(33.3)	72(66.7)	108(100)		0.80 (0.51-1.26)
Tertiary	131(38.4)	210(61.6)	341(100)		1.00
Total	187(37.4)	313(62.6)	500(100)		
EDUCATIONAL STATUS OF MOTHER					
None	10(50.0)	10(50.0)	20(100)	8.632 p=0.035*	1.82 (0.74-4.50)
Primary	17(60.7)	11(39.3)	28(100)		2.81*(1.28-6.20)
Secondary	37(35.2)	68(64.8)	105(100)		0.99 (0.63-1.57)
Tertiary	123(35.4)	224(64.8)	347(100)		1.00
Total	187(37.4)	313(62.6)	500(100)		
MARITAL STATUS OF PARENTS					
Living Together	148(35.1)	274(64.9)	422(100)	9.495 p=0.023*	1.00
Separated/Divorced	15(53.6)	13(46.4)	28(100)		2.14 (0.98-4.61)
Living with Father	13(61.9)	8(38.1)	21(100)		3.01*(1.22-7.42)
Living with Mother	11(37.9)	18(62.3)	29(100)		1.13 (0.52-2.46)
Total	187(37.4)	313(62.6)	500(100)		
NUMBER OF SIBLINGS/FAMILY SIZE					
≤4	102(33.3)	204(66.7)	306(100)	9.197 p=0.010*	1.00
5-8	75(41.9)	104(58.1)	179(100)		1.44 (0.99-2.11)
>8	10(66.7)	5(33.3)	15(100)		4.00*(1.33-12.01)
Total	187(37.4)	313(62.6)	500(100)		
POSITION AMONG SIBLINGS					

1 st	63(38.9)	99(61.1)	162(100)	10.713	1.00	
2 nd	40(34.5)	76(65.5)	116(100)	p=0.057	0.83 (0.50-1.36)	
3 rd	24(29.3)	58(70.7)	82(100)		0.65 (0.37-1.15)	
≥4 th	40(51.9)	37(48.1)	77(100)		1.70 (0.98-2.93)	
Last	20(31.7)	43(68.3)	63(100)		0.73 (0.9-1.36)	
Total	187(37.4)	313(62.6)	500(100)			
OCCUPATION OF FATHER						
Unemployed	11(44.0)	14(56.0)	25(100)	7.515	1.00	
Trader/Businessman	54(38.3)	87(61.7)	141(100)	p=0.377	0.79 (0.33-1.87)	
Artisan	6(40.0)	9(60.0)	15(100)		0.85 (0.23-3.11)	
Civil Servant	60(38.0)	98(62.0)	158(100)		0.78 (0.33-1.83)	
Professional	54(36.0)	96(64.0)	150(100)		0.72 (0.30-1.69)	
Retired/ Clergy	2(18.2)	9(81.8)	11(100)		0.28 (0.05-1.59)	
Total	187(37.4)	313(62.6)	500(100)			
OCCUPATION OF MOTHER						
Unemployed	21(58.3)	15(41.7)	36(100)	12.401	1.00	
Trader/ Businesswoman	64(37.6)	106(62.4)	170(100)	p=0.035*	0.43*(0.21-0.90)	
Artisan	4(26.7)	11(73.3)	15(100)		0.26*(0.07-0.97)	
Civil Servant/ Pensioner	62(33.7)	122(63.3)	184(100)		0.36*(0.18-0.75)	
Professional	36(37.9)	59(62.1)	95(100)		0.44*(0.20-0.95)	
Total	187(37.4)	313(62.6)	500(100)			
TYPE OF SECONDARY SCHOOL ATTENDED						
Girls school only	65(40.6)	95(59.4)	160(100)	1.045	1.00	
Mixed	122(35.9)	218(64.1)	340(100)	p=0.307	0.82 (0.56-1.20)	
Total	187(37.4)	313(62.6)	500(100)			
FORM OF SECONDARY SCHOOL ATTENDED						
Public School	63(42.9)	84(57.1)	147(100)	3.229	1.00	
Private School	80(33.8)	157(66.2)	237(100)	p=0.199	0.68 (0.44-1.03)	
Mission School	44(37.9)	72(62.1)	116(100)		0.82 (0.46-1.26)	
Total	187(37.4)	313(62.6)	500(100)			
NUMBER OF CHILDREN (n=89)						
≤4	73(88.0)	10(12.0)	83(100)	F=0.814	NA	
>4	6(100)	0(0)	6(100)	p=0.478		
Total	79(88.8)	10(11.2)	89(100)			
NUMBER OF MALES (n=89)						
≤2	73(88.0)	10(12.0)	83(100)	F=0.814	NA	
>2	6(100)	0(0)	6(100)	p<0.478		
Total	79(88.8)	10(11.2)	89(100)			
AGE AT FIRST UNION (n=89)						
<20	15(88.2)	2(11.8)	17(100)	F=0.006	1.00	
≥20	64(88.9)	8(11.1)	72(100)	p=0.610		
Total	79(88.8)	10(11.2)	89(100)			
NUMBER OF YEARS IN UNION						
≤5	57(85.1)	10(14.9)	67(100)	2.354	NA	
>5	22(100)	0(0)	22(100)	p=0.062		
Total	79(88.8)	10(11.2)	89(100)			
EDUCATIONAL LEVEL OF PARTNER						
Secondary	10(90.9)	1(9.1)	11(100)	F=0.058	1.00	
Tertiary	69(88.5)	9(11.5)	78(100)	p=0.641		
Total	79(88.8)	10(11.2)	89(100)			

*=Statistically Significant, F= Fisher Exact, NA= Not applicable

Table 5: Socio-demographic determinants of sexual activity/debut in the last 3 months

VARIABLES	HAD SEX IN THE LAST THREE MONTHS			χ^2/p -value	OR: 95% CI
	YES (%)	NO (%)	TOTAL (%)		
AGE					
<20	26(15.9)	138(84.1)	164(100)	44.374 p<0.0010*	1.00
21-24	64(31.5)	139(68.5)	203(100)		2.44*(1.46-4.08)
25-29	42(41.6)	59(58.4)	101(100)		3.78*(2.12-6.72)
>30	22(68.8)	10(31.3)	32(100)		11.68*(4.96-27.51)
Total	154(30.8)	346(69.2)	500(100)		
MARITAL STATUS					
Never Married	83(20.2)	328(79.8)	411(100)	119.068 p<0.0010*	1.00
Ever Married	71(79.8)	18(20.2)	89(100)		15.59*(8.81-27.58)
Total	154(30.8)	346(69.2)	500(100)		
TRIBE					
Igbo	96(24.4)	298(75.6)	394(100)	47.236 p<0.0010*	1.00
Hausa	15(78.9)	4(21.1)	19(100)		11.64*(3.77-35.92)
Yoruba	34(56.7)	26(43.3)	60(100)		4.06*(2.31-7.11)
Others	9(33.3)	18(66.7)	27(100)		1.55 (0.68-3.57)
Total	154(30.8)	346(69.2)	500(100)		
RELIGION					
Catholic	61(24.2)	191(75.8)	252(100)	32.867 p<0.0010*	1.00
Pentecostal	55(30.7)	124(69.3)	179(100)		1.39 (0.91-2.13)
Orthodox	21(44.7)	26(55.3)	47(100)		2.53*(1.33-4.81)
Muslim/Traditional	17(77.3)	5(22.7)	22(100)		10.65*(3.77-30.06)
Total	154(30.8)	346(69.2)	500(100)		
PLACE OF STAY					
Lives with Parents	17(14.7)	99(85.3)	116(100)	117.526 p<0.0010*	1.00
School Hostel	55(24.4)	170(75.6)	225(100)		1.89*(1.04-3.43)
Rented apartment alone	13(68.4)	6(31.6)	19(100)		12.62*4.22-37.74)
Rented apartment with others	15(24.6)	46(75.4)	61(100)		1.90 (0.87-4.13)
Lives with relatives	5(21.7)	18(78.3)	23(100)		1.62 (0.53-4.94)
Lives with partner	49(87.5)	7(12.5)	56(100)		40.77*(15.85-104.82)
Total	154(30.8)	346(69.2)	500(100)		
TYPE OF SPONSORSHIP					
Parents	92(23.5)	300(76.5)	392(100)	63.107 p<0.0010*	1.00
Relatives	13(33.3)	26(66.7)	39(100)		1.63 (0.81-3.30)
Scholarship	15(75.0)	5(25.0)	20(100)		9.78*(3.46-27.64)
Self	25(71.4)	10(28.6)	35(100)		8.15*(3.78-17.60)
Partner/Spouse	9(64.3)	5(35.7)	14(100)		5.87*(1.92-17.95)
Total	154(30.8)	346(69.2)	500(100)		
TYPE OF STUDENT					
Full Time	118(26.3)	331(73.7)	449(100)	42.184 p<0.0010*	1.00
Part Time	36(70.6)	15(29.4)	51(100)		6.73*(3.56-12.74)
Total	154(30.8)	346(69.2)	500(100)		
FACULTY OF STUDY					
Medicine and related	76(26.6)	210(73.4)	286(100)	5.600 p=0.018*	1.00
Non-Medicine related	78(36.4)	136(63.6)	214(100)		1.56*(1.08-2.32)

Total	154(30.8)	346(69.2)	500(100)		
LEVEL OF STUDY					
100	6(7.1)	79(92.9)	85(100)	48.27 p<0.0010*	1.00
200	19(18.4)	84(81.6)	103(100)		2.98*(1.13-7.84)
300	28(41.2)	40(58.8)	68(100)		9.22*(3.53-24.08)
400	54(44.6)	67(55.4)	121(100)		10.61*(4.30-26.21)
500	27(35.1)	50(64.9)	77(100)		7.11*(2.74-18.44)
600	20(43.5)	26(56.5)	46(100)		10.13*(3.67-27.93)
Total	154(30.8)	346(69.2)	500(100)		
PERSON(S) SHARED ROOM WITH					
Sharing with other females	45(17.3)	215(82.7)	260(100)	78.364 p<0.0010*	1.00
Alone in a room	64(36.8)	110(63.2)	174(100)		2.78*(1.78-4.34)
Sharing with a male partner	38(79.2)	10(20.8)	48(100)		18.16*(8.43-39.10)
Attaching with someone	7(38.9)	11(61.1)	18(100)		3.04*(1.12-8.27)
Total	154(30.8)	346(69.2)	500(100)		
EARNING AN INCOME					
Yes	91(50.8)	88(49.2)	179(100)	52.525 p<0.0010*	4.24*(2.83-6.33)
No	63(19.6)	258(80.4)	321(100)		1.00
Total	154(30.8)	346(69.2)	500(100)		
MONTHLY INCOME (₦) n=179					
<20000	20(27.0)	54(73.0)	74(100)	31.568 p<0.0010*	1.00
20,000-50,000	35(61.4)	22(38.6)	57(100)		4.30*(2.05-9.00)
>50,000	36(75.0)	12(25.0)	48(100)		8.10*(3.53-18.59)
Total	91(50.8)	88(49.2)	179(100)		
PERSONAL INCOME/EXPENDITURE STATUS					
Excess	26(40.6)	38(59.4)	64(100)	5.660 p=0.049	3.03*(1.16-7.91)
Normal	121(30.4)	277(69.6)	398(100)		1.94 (0.83-4.52)
Deficient/Less	7(18.4)	31(81.6)	38(100)		1.00
Total	154(30.8)	346(69.2)	500(100)		
TYPE OF FAMILY					
Monogamous	136(29.9)	319(70.1)	455(100)	1.964 p=0.161	1.00
Polygamous	18(38.6)	27(61.4)	45(100)		1.56 (0.83-2.93)
Total	154(30.8)	346(69.2)	500(100)		
EDUCATIONAL STATUS OF FATHER					
None	5(35.7)	9(64.3)	14(100)	3.117 p=0.374	1.67 (0.38-3.56)
Primary	13(35.1)	24(64.9)	37(100)		1.14 (0.56-2.32)
Secondary	26(24.1)	82(75.9)	108(100)		0.67 (0.41-1.09)
Tertiary	110(32.3)	231(67.7)	341(100)		1.00
Total	154(30.8)	346(69.2)	500(100)		
EDUCATIONAL STATUS OF MOTHER					
None	10(50.0)	10(50.0)	20(100)	11.409 p=0.010*	2.47*(1.00-6.12)
Primary	15(53.6)	13(46.4)	28(100)		2.85*(1.31-6.21)
Secondary	29(27.6)	76(72.4)	105(100)		0.94 (0.58-1.53)
Tertiary	100(28.8)	247(71.2)	347(100)		1.00
Total	154(30.8)	346(69.2)	500(100)		
MARITAL STATUS OF PARENTS					
Living Together	117(27.7)	305(72.3)	422(100)	16.432 p=0.001*	1.00
Separated/Divorced	14(50.0)	14(50.0)	28(100)		2.61*(1.21-5.64)
Living with Father	13(61.9)	8(38.1)	21(100)		4.24*(1.71-10.48)
Living with Mother	10(34.5)	19(65.5)	29(100)		1.37 (0.61-3.04)
Total	154(30.8)	346(69.2)	500(100)		

NUMBER OF SIBLINGS/FAMILY SIZE					
≤4	84(27.5)	222(72.5)	306(100)	8.513 p=0.014*	1.00
5-8	61(34.1)	118(65.9)	179(100)		1.37 (0.92-2.03)
>8	9(60.0)	6(40.0)	15(100)		3.96*(1.37-12.24)
Total	154(30.8)	346(60.2)	500(100)		
POSITION AMONG SIBLINGS					
1 st	48(29.6)	114(70.4)	162(100)	9.187 p=0.102	1.00
2 nd	28(28.1)	88(75.9)	116(100)		0.76 (0.43-1.30)
3 rd	25(30.5)	57(69.5)	82(100)		1.04 (0.58-1.86)
≥4 th	34(44.2)	43(55.6)	77(100)		1.88*(1.07-3.29)
Last	19(30.2)	44(69.8)	63(100)		1.03 (0.54-1.94)
Total	154(30.8)	346(69.2)	500(100)		
OCCUPATION OF FATHER					
Unemployed	5(20.0)	20(80.0)	25(100)	7.429 p=0.386	1.00
Trader	42(29.8)	99(70.2)	141(100)		1.70 (0.60-4.82)
Artisan	6(40.0)	9(60.0)	15(100)		2.67 (0.64-11.08)
Civil Servant	47(29.7)	111(70.3)	158(100)		1.69 (0.60-4.78)
Professional	52(34.7)	98(65.3)	150(100)		2.12 (0.75-5.98)
Retired/Clergy	2(11.2)	9(81.8)	11(100)		0.89 (0.14-5.48)
Total	154(30.8)	346(69.2)	500(100)		
OCCUPATION OF MOTHER					
Unemployed	19(52.8)	17(47.2)	36(100)	14.628 p=0.023*	1.00
Trader/Businesswoman	55(32.4)	115(67.6)	170(100)		0.43*(0.21-0.89)
Artisan	2(13.3)	13(86.7)	15(100)		0.14*(0.03-0.70)
Civil Servant/ Pensioner	50(27.2)	134(72.8)	184(100)		0.33*(0.16-0.69)
Professional	28(29.5)	67(70.5)	95(100)		0.37*(0.17-0.82)
Total	154(30.8)	346(69.2)	500(100)		
TYPE OF SECONDARY SCHOOL ATTENDED					
Girls school only	60(37.5)	100(62.5)	160(100)	4.956 p=0.026*	1.57*(1.05-2.34)
Mixed	94(27.6)	246(72.4)	340(100)		1.00
Total	154(30.8)	346(69.2)	500(100)		
FORM OF SECONDARY SCHOOL ATTENDED					
Private School	62(26.2)	175(73.8)	237(100)	7.682 p=0.021*	1.00
Mission School	34(29.3)	82(70.7)	116(100)		1.17 (0.71-1.92)
Public School	58(39.5)	89(60.5)	147(100)		1.89*(1.19-2.86)
Total	154(30.8)	346(69.2)	500(100)		
NUMBER OF CHILDREN (n=89)					
≤4	66(79.5)	17(20.5)	83(100)	F=0.050 p=0.822	1.00
>4	5(83.3)	1(16.7)	6(100)		1.28 (0.72-11.77)
Total	71(79.8)	18(20.2)	89(100)		
NUMBER OF MALES (n=89)					
≤2	66(79.5)	17(20.5)	83(100)	F=0.050 p=0.822	1.00
>2	5(83.3)	1(16.7)	6(100)		1.28 (0.72-11.77)
Total	71(79.8)	18(20.2)	89(100)		
AGE AT FIRST UNION (n=89)					
<20	15(88.2)	2(11.8)	17(100)	F=0.932 p=0.334	2.14 (0.44-10.37)
≥20-25	56(77.8)	16(22.2)	72(100)		1.00
Total	71(79.8)	18(20.2)	89(100)		
NUMBER OF YEARS IN UNION (n=89)					
≤5	52(77.6)	15(22.4)	67(100)	F=0.949 p=0.289	1.00
>5	19(86.4)	3(13.4)	22(100)		1.83 (0.48-7.02)

Total	71(79.8)	18(20.2)	89(100)		
EDUCATIONAL LEVEL OF PARTNER (n=89)					
≤Secondary	9(81.8)	2(18.2)	11(100)	F=0.033	1.00
Tertiary	62(79.5)	16(20.5)	78(100)	p=0.610	0.86 (0.17-4.39)
Total	71(79.8)	18(20.2)	89(100)		

*=Statistically Significant, F= Fisher Exact

Table 6: Socio-demographic determinants of induced abortion among the female students

VARIABLES	EVER HAD AN INDUCED ABORTION			χ^2/p -value	OR:95% CI
	YES (%)	NO (%)	TOTAL (%)		
AGE GROUP (YRS)					
<20	5(3.0)	159(97.0)	164(100)	27.910 p<=0.0010*	1.00
20-29	27(8.9)	277(91.1)	304(100)		3.10*(1.17-8.21)
≥30	10(31.3)	22(68.8)	32(100)		14.46*(4.50-42.22)
Total	42(8.4)	458(91.6)	500(100)		
MARITAL STATUS					
Never Married	23(5.6)	388(94.4)	411(100)	23.592 p<=0.0010*	1.00
Ever Married	19(21.3)	70(78.7)	89(100)		4.58*(2.37-8.85)
Total	42(8.4)	458(91.6)	500(100)		
TRIBE					
Igbo	24(6.1)	370(93.9)	394(100)	26.548 p<=0.0010*	1.00
Hausa	4(21.1)	15(78.9)	19(100)		4.11*(1.27-13.35)
Yoruba	14(23.3)	46(76.7)	60(100)		4.69*(2.27-9.71)
Others	0(0.0)	27(100)	27(100)		NA
Total	42(8.4)	458(91.6)	500(100)		
RELIGION					
Catholic	13(5.2)	239(94.8)	252(100)	19.550 p<0.001*	1.00
Orthodox	7(14.9)	40(85.1)	47(100)		3.22*(1.21-8.56)
Pentecostal	16(8.9)	163(91.1)	179(100)		1.81 (0.84-3.85)
Muslim	4(22.2)	14(77.8)	18(100)		5.25*(1.51-18.22)
Traditional	2(50.0)	2(50.0)	4(100)		18.38*(2.40-141.10)
Total	42(8.4)	458(91.6)	500(100)		
PLACE OF STAY					
Lives with Parents	2(1.7)	114(98.3)	116(100)	29.667 p<0.0010*	1.00
School Hostel	14(6.2)	211(93.8)	225(100)		3.78 (0.84-16.93)
Rented apartment alone	2(10.5)	17(89.5)	19(100)		6.71 (0.89-50.81)
Rented apartment with others	7(11.5)	54(88.5)	61(100)		7.39*(1.49-36.76)
Lives with relatives	3(13.0)	20(87.0)	23(100)		8.55*(1.34-54.44)
Lives with a partner	14(25.0)	42(75.0)	56(100)		19.00*(4.14-87.16)
Total	42(8.4)	458(91.6)	500(100)		
TYPE OF SPONSORSHIP					
Parents	16(4.1)	376(95.9)	392(100)	62.963 p<0.0010*	1.00
Relatives	8(20.5)	31(79.5)	39(100)		6.07*(2.41-15.28)
Scholarship	5(25.0)	15(75.0)	20(100)		7.83*(2.53-24.23)
Self	13(37.1)	22(62.9)	35(100)		13.87*(5.94-32.45)
Partner/ Spouse	0(0)	14(100)	14(100)		NA

Total	42(8.4)	458(91.6)	500(100)		
TYPE OF STUDENT					
Full Time	28(6.2)	421(93.8)	449(100)	26.789 p<0.0010*	1.00 5.68*(2.76-11.74)
Part Time	14(27.5)	37(72.5)	51(100)		
Total	42(8.4)	458(91.6)	500(100)		
FACULTY OF STUDY					
Medicine and related	13(4.5)	273(95.5)	286(100)	12.903 p<0.0010*	1.00 3.29*(1.67-6.50)
Non-Medicine related	29(13.6)	185(84.6)	214(100)		
Total	42(8.4)	458(91.6)	500(100)		
LEVEL OF STUDY					
≤200	8(4.3)	180(95.7)	188(100)	6.726 p=0.010*	1.00 2.75*(1.24-6.08)
≥300	34(10.9)	278(89.1)	312(100)		
Total	42(8.4)	458(91.6)	500(100)		
PERSON(S) SHARED ROOM WITH					
Sharing with other female(s)	14(5.4)	246(94.6)	260(100)	11.497 p=0.009*	1.00 1.78 (0.85-3.75) 4.06*(1.64-10.00) 3.51 (0.91-13.58)
Alone in a room	16(9.2)	158(90.8)	174(100)		
Sharing with a male partner	9(18.8)	39(81.3)	48(100)		
Attaching with someone	3(16.7)	15(83.3)	18(100)		
Total	42(8.4)	458(91.6)	500(100)		
EARNING AN INCOME					
Yes	24(13.4)	155(86.6)	179(100)	9.087 p=0.003*	2.61*(1.37-4.95) 1.00
No	18(5.6)	303(94.4)	321(100)		
Total	42(8.4)	458(91.6)	500(100)		
MONTHLY INCOME (₹) n=179					
<20,000	6(8.1)	68(91.9)	74(100)	9.693 p=0.021*	1.00 1.85 (0.60-5.67) 2.98*(1.01-8.85)
20,000-50,000	8(14.0)	49(86.0)	57(100)		
>50000	10(20.8)	38(79.2)	48(100)		
Total	24(13.4)	155(86.6)	179(100)		
PERSONAL INCOME / EXPENDITURE STATUS					
Normal	25(6.3)	373(93.7)	398(100)	12.350 p=0.001*	1.00 2.26 (0.81-6.30) 3.44*(1.63-7.27)
Deficient/Less	5(13.2)	33(86.8)	38(100)		
Excess	12(18.8)	52(81.3)	64(100)		
Total	42(8.4)	458(91.6)	500(100)		
TYPE OF FAMILY					
Monogamous	32(7.0)	423(93.0)	455(100)	12.278 p=0.0010*	1.00 3.78*(1.71-8.32)
Polygamous	10(22.2)	35(77.8)	45(100)		
Total	42(8.4)	458(91.6)	500(100)		
EDUCATIONAL STATUS OF FATHER					
None	3(21.4)	11(78.6)	14(100)	22.307 p<0.0010*	5.20*1.33-20.39) 6.13*(2.50-15.00) 2.61*(1.22-5.56) 1.00
Primary	9(24.3)	28(75.7)	37(100)		
Secondary	13(12.0)	95(88.0)	108(100)		
Tertiary	17(5.0)	324(95.0)	341(100)		
Total	42(8.4)	458(91.6)	500(100)		
EDUCATIONAL STATUS OF MOTHER					
None	6(30.0)	14(70.0)	20(100)	31.761 p<0.0010*	7.83*(2.69=22.78) 7.31*(2.84-18.85) 1.92 (0.86-4.31) 1.00
Primary	8(28.6)	20(71.4)	28(100)		
Secondary	10(9.5)	95(90.5)	105(100)		
Tertiary	18(5.2)	329(94.8)	347(100)		
Total	42(8.4)	458(91.6)	500(100)		
MARITAL STATUS OF PARENTS					

Living Together	26(6.2)	396(93.8)	422(100)	33.078 p<0.0010*	1.00
Separated/Divorced	6(21.4)	22(78.6)	28(100)		4.15*(1.55-11.14)
Living with Father	8(38.1)	13(61.9)	21(100)		9.37*(3.57-24.63)
Living with Mother	2(6.9)	27(93.1)	29(100)		1.13 (0.25-5.01)
Total	42(8.4)	458(91.6)	500(100)		
NUMBER OF SIBLINGS/FAMILY SIZE					
≤4	20(6.5)	286(93.5)	306(100)	8.525 p=0.014*	1.00
5-8	18(10.1)	161(89.9)	179(100)		1.60 (0.82-3.11)
>8	4(26.7)	11(73.3)	15(100)		5.20*(1.52-17.81)
Total	42(8.4)	458(91.6)	500(100)		
POSITION AMONG SIBLINGS					
1 st	12(7.4)	150(92.6)	162(100)	1.421 p=0.233	1.00
2 nd	6(5.2)	110(94.8)	116(100)		0.68 (0.25-1.87)
3 rd	9(11.0)	73(89.0)	82(100)		1.54 (0.62-3.82)
≥4 th	9(11.7)	68(88.3)	77(100)		1.65 (0.62-3.82)
Last	6(9.5)	57(90.5)	63(100)		1.32 (0.47-3.67)
Total	42(8.4)	458(91.6)	500(100)		
OCCUPATION OF FATHER					
Unemployed	4(16.0)	21(84.0)	25(100)	15.169 p=0.034*	1.00
Trader	17(12.1)	124(87.9)	141(100)		0.72 (0.22-2.35)
Artisan	2(13.3)	13(86.7)	15(100)		0.81 (0.13-5.05)
Civil Servant	15(9.5)	143(90.5)	158(100)		0.55 (0.17-1.81)
Professional	4(2.7)	146(97.3)	150(100)		0.14*(0.03-0.62)
Retired/ Clergy	0(0.0)	11(100)	11(100)		NA
Total	42(8.4)	458(91.6)	500(100)		
OCCUPATION OF MOTHER					
Unemployed	12(33.3)	24(66.7)	36(100)	35.562 p<0.0010*	1.00
Trader/Businesswoman	15(8.8)	155(91.2)	170(100)		0.19*(0.08-0.46)
Artisan	2(13.3)	13(86.7)	15(100)		0.31 (0.06-1.59)
Civil Servant/ Pensioner	10(5.4)	174(94.6)	184(100)		0.12*(0.05-0.300)
Professional	3(3.2)	92(96.8)	95(100)		0.07*(0.02-0.25)
Total	42(8.4)	458(91.6)	500(100)		
TYPE OF SECONDARY SCHOOL ATTENDED					
Girls school only	13(8.1)	147(91.9)	160(100)	0.023 p=0.879	1.00
Mixed	29(8.5)	311(91.5)	340(100)		1.05 (0.53-2.09)
Total	42(8.4)	458(91.6)	500(100)		
FORM OF SECONDARY SCHOOL ATTENDED					
Public School	21(14.3)	126(85.7)	147(100)	10.110 p=0.006*	3.13*(1.49-6.56)
Mission School	9(7.8)	107(92.2)	116(100)		1.58 (0.64-2.86)
Private School	12(5.1)	225(94.9)	237(100)		1.00
Total	42(8.4)	458(91.6)	500(100)		
NUMBER OF CHILDREN (n=89)					
≤4	18(21.7)	65(78.3)	83(100)	F=0.084 p=0.621	1.00
>4	1(16.7)	5(83.3)	6(100)		0.72 (0.08-6.58)
Total	19(21.3)	70(78.7)	89(100)		
NUMBER OF MALES (n=89)					
≤2	18(21.7)	65(78.3)	83(100)	F=0.084 p=0.621	1.00
>2	1(16.7)	5(83.3)	6(100)		0.72 (0.08-6.58)
Total	19(21.3)	70(78.7)	89(100)		
NUMBER OF YEARS IN UNION (n=89)					

≤5	10(14.9)	57(85.1)	67(100)	5.841 p=0.016*	1.00
>5	9(40.9)	13(59.1)	22(100)		3.60*(1.22-10.54)
Total	19(21.3)	70(78.7)	89(100)		
EDUCATIONAL LEVEL OF PARTNER					
≤Secondary	2(18.8)	9(81.8)	11(100)	F=0.075	1.00
Tertiary	17(21.8)	61(78.2)	78(100)	p=0.570	1.25 (0.25-6.36)
Total	19(21.3)	70(78.7)	89(100)		

* =Statistically Significant', F= Fisher Exact, NA= Not applicable