

Original paper

Factors and Consequences Associated with Risky Sexual Behaviours among Secondary School Students in Gwagwalada

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ABSTRACT: The burden of risky sexual behaviors among secondary school students is substantial and has attracted growing international recognition. Unfortunately, adolescents and young adults may underrate the harmful effect of their actions and the unhealthy lifestyles. Risky sexual behaviors remain a major health challenge all over the world, therefore, there is pressing need to identify factors and consequences that contribute to these risky practices. This study aims to determine the knowledge, practice, factors and consequences associated with the practice of risky sexual behaviours among secondary school students in Gwagwalada. Cross-sectional design, a multistage sampling method and a self-administered questionnaire based-survey were utilized. A minimum sample size of 300 (including 10% added for non-response) was arrived at using the prevalence study formula. The results showed that majority of the respondents were 15 years with frequency of 60 (20.0%). There was a fair gender distribution of the respondents interviewed, comprising 53.3% male. There was good knowledge of risky sexual behaviours with a frequency of 199(66.3%). The prevalence of risky sexual behaviours among the students was 13.7%. The most commonly practiced RSB was engaging in unprotected sex with a single partner (70%). The main age of sexual debut was 15 years (24.4%). Majority of the respondents agreed that peer pressure 3.0% was the main factors that lead to the practice of risky sexual behaviours. This study derived that the main consequences associated with risky sexual behaviours practices is lack of concentration in class and loss of interest in studying 35 (11.7%). In conclusion, the results revealed that there's need to educate the adolescent on risky sexual behaviors and measures should be taken to curb the increase of RSB in our environment.

Keywords: Risky sexual behaviours; knowledge; practices; factors; consequences; adolescents

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INTRODUCTION

Risky sexual behaviours (RSB) are generally defined as behaviours or acts that increases the risk of contracting sexually transmitted infections and diseases and suffering unintended pregnancies (Perera and Abeysena, 2018). They include engaging in sexual activities at an early age, having multiple sexual partners who might also have multiple sexual partners. Risky sexual behaviours are becoming widely acknowledged globally and it also include having sex while intoxicated with alcohol or drugs, and engaging in unsafe and unprotected sexual

behaviours (Hart and Peterson, 2004). According to the World Health Organization (WHO, 2022), adolescence is seen as the chapter of life between childhood and adulthood, between the ages of 10 to 19 years (WHO, 2022). There are close to 1.2 billion adolescents, accounting for about 16% of the world's population (Murray and Newby, 2012). Nigeria is home to one-third of all adolescents in developing countries.⁵Adolescents make up the multitude of secondary school institutions and at these institutions they are susceptible to engage in

risky sexual behaviours and practices as a result of their teenage enthusiasm stage and the new environment they are exposed to (Fekadu et al., 2021). It is undoubtable that adolescence is a period of extreme risk taking. Several studies have studied and documented the factors and consequences associated with these risky sexual behaviours adolescents indulge in. According to Centres for Disease Control and Prevention (CDC), it has been generally observed that risky sexual behaviours are gradually becoming a worldwide public, reproductive and social health problem that is associated with high morbidity and mortality rate among adolescents (CDC, 2019).

A study conducted in a south western state in Nigeria showed that adolescents engage in risky sexual behaviours and activities including early introduction in sexual activities, sex with multiple partners, decreased, incorrect and inconsistent use of condoms (Adeomi et al., 2014). A study conducted in Ethiopia showed that the degree of risky sexual behaviour is not always limited to risky lifestyle. These behaviours are also closely associated with other risky behaviours like poor performance in school, abuse of harmful substances, physical violence. These risky sexual behaviours can affect their physical and emotional health, affecting the nation at large (Bizuwor, 2022).

The factors associated with risky sexual behaviours can be grouped into: individual or personal factors like; personal pleasure, psychological factors like emotional, consumption of negative social media contents, watching pornographic videos, behavioural problems depression and hopelessness. Social factors like; substance use, cigarette smoking, peer pressure, alcohol use, by force, having sexually activities with close friends and relatives, poor social support. Familial factors like; reduced parental monitoring, economic status of the family, parental negligence (Bizuwor, 2022; Asnake et al., 2021; Srahbzu and Tirfeneh, 2020; Bachanas, 2002; Wana et al., 2019).

The consequences of risky sexual behaviours are early unintended teenage pregnancy, transmission of sexually transmitted diseases examples of which are syphilis and gonorrhoea, transmission of HIV infections representing 73% of 13- to 19-year-olds diagnosed with HIV and 66% of 13- to 19-year-olds diagnosed with AIDS are attributed to the consequences (Bachanas, 2002). A survey conducted in the United States of America among high school students showed 38% of the respondents have had sexual intercourse. 9% of these respondents have had four or more sexual partners, 46% did not make use of a condom the last time they had sex (CDC, 2019). It is globally postulated that approximately 260,000 adolescents were newly infected with HIV, among which 200,000 lived in 23 priority countries, which are mainly sub-Saharan African countries (Ali et al., 2021). Worldwide, especially Africa, it is predicted that around one-third (38%) of all pregnancies are due to Risky

sexual behaviours. Similar studies have also described Risky sexual behaviours as a common practice among adolescents and young adults in Sub-Saharan Africa (SSA). Adolescents in this region were frequently involved in pre-marital sexual intercourse, with ill consequences such as unwanted pregnancy, sexually transmitted infections and diseases like HIV and AIDS (Fetene and Mekonnen, 2018). A study conducted in Southwest Nigeria, Ogun state, showed that the prevalence of risky sexual behaviour recorded was 19.2% (Olaoye and Agbede, 2019). Another study conducted in Southwest Nigeria, Oyo State, revealed that 23.0% of the responders had at least one RSB (Idowu et al., 2017).

Scope of study

This study focuses mainly on the factors and consequences associated with the practice of risky sexual behaviours among secondary school students in Gwagwalada.

Rationale for the study

Studies on adolescents' sexual behaviours are essential to encourage healthy and safe behaviours, averting risky sexual practices among adolescents and the transmission of sexually transmitted diseases and infections which is important for the country's healthy future and the fulfillment of Sustainable Development Goals 3 (SDG) of 2030 (Odii et al., 2020). This study also aids the reprogramming of sex education for the Nigerian secondary school students (Idowu et al., 2017). This research elicits the important information on the knowledge, consequences and factors associated with the practice of risky sexual behaviours among secondary school students which is largely made up of adolescents. This research also intends to improve the attitude towards sex, sexual behaviours, sex education and reproductive health. With this study, readers would derive the factors and consequences associated with risky sexual behaviours among secondary school students. The findings in this research will provide the appropriate enlightenment of the inherent danger of lack of adequate sex education, parental monitoring and proper care of adolescents in the exciting yet unstable period of adolescence among the people living in Gwagwalada. This research can also be used to improve knowledge about the plights of adolescence and it can also be used by the governing bodies to ensure Sustainable Developmental Goal (SDG) 3 and fulfil the Sustainable Developmental Goal of 2030.

Research questions

The following research questions will be provided

answers to;

1. What is the prevalence of risky sexual behaviours among secondary school students in Gwagwalada?
2. What is the participants knowledge about risky sexual behaviours among secondary school students in Gwagwalada?
3. What is the practice rate of risky sexual behaviours among secondary school students in Gwagwalada?
4. What are the factors associated with risky sexual behaviours among secondary school students in Gwagwalada?
5. What are the consequences of the practice risky sexual behaviours among secondary school students in Gwagwalada?

Aims and objectives

General objective

To determine the factors and consequences associated with the practice of risky sexual behaviours among secondary school students in Gwagwalada.

Specific objectives

1. To assess the knowledge of risky sexual behaviours among secondary school students in Gwagwalada.
2. To determine the practices of risky sexual behaviours among secondary school students in Gwagwalada.
3. To determine the factors associated with risky sexual behaviours among secondary school students in Gwagwalada.

To identify the consequences of the practice of risky sexual behaviours among secondary school students in Gwagwalada

Literature review

Risky sexual behaviours have been studied to have enormous global impact. It has been shown that adolescents engage in risky sexual behaviours like sexual activities at early ages, having multiple sexual partners who might also have multiple sexual partners, having sex while under the influence of alcohol or illicit drugs, and engaging in unsafe and unprotected sexual behaviours (Hart and Peterson, 2004). Adolescents are at an increased risk of negative sexual health outcome due to their increased rates of unprotected sexual practice with multiple partners and high-risk partners and the inconsistent and incorrect use of condom (Chan, 2021). Yearly, approximately 20 million new cases of sexually transmitted diseases are reported with 50% of

the cases occurring among adolescent (Osadolor et al., 2022). Due to poor maintenance and decreased supervision, some secondary schools have now become places where risky sexual behaviours are being practised and promoted. Studies have shown that risky sexual behaviours in adolescents may lead to long-term poor outcome of reproductive health such as pelvic inflammatory diseases, infertility, and sexually transmitted infections and diseases such as HIV/AIDS (Abajobir et al., 2017). A study done by the Centres for Disease Control and Prevention (CDC), showed that according to the 2017 National Youth Risk Behaviour Survey (NYRBS), 40% of the adolescents in high school had had intercourse and 29% of adolescents in high school students are currently sexually active. Among the adolescents who are sexually active, 19% of them consumed alcohol or engaged in illicit use of drugs before last their sexual intercourse (<https://www.cdc.gov/healthyyouth/substance-use/dash-substance-use-fact-sheet.htm>). Due to the participation in risky sexual behaviours, studies shows that a range of mental health problems are associated with risky sexual behaviours, like personality disorder including aggression and antisocial behaviours, alcohol use depression, poor parental monitoring and lack of family support (Abajobir et al., 2017). With the studies listed above, it is clear to say that risky sexual behaviour has indeed become a worldwide health problem, with numerous and devastating consequences which does not only affect the life of the individual but the country at large.

Knowledge of risky sexual behaviours

Unsafe sex with inconsistent and incorrect use of condom during sexual activities which usually begins in the adolescent years are often times the risk associated with sexually transmitted infections and sexual transmitted diseases. Therefore, obtaining the knowledge about these risks are important in curbing these risky practices. An analytical cross-sectional study on the knowledge of safe sex conducted in Vientiane Prefecture of Laos in South-eastern Asia in 2020, by using a self-administered questionnaire to collect information from 377 respondents, the result of the study showed that 49.5%, had a good knowledge of safe sex and 51.9% of the participants had a good knowledge of sexually transmitted diseases and infections (STDs and STIs), with a p-value of <0.005 (Inthavong et al., 2020). The data obtained from this study is fairly good, but I am not convinced because of the limitation of the study showed that the study was only conducted in one school in Lao, which doesn't represent all the school in Lao. A cross-sectional study was conducted among 3180 secondary school students in the Shanghai municipality and the Shaanxi province, China in 2022, the aim was to investigate sexual-related knowledge and its associations

the result showed that sexual-related knowledge among girls (53.8) is higher than that of boys (48.8) (Fang et al., 2022).

A study involving an institution based descriptive cross-sectional study was performed among Metu secondary and preparatory school students in Metu town of southwestern Ethiopia in 2019. There were a total of 361 participants; data was collected through self-administered questionnaires. This research assessed the school adolescent's knowledge on risky sexual behaviours and the result showed that among the total respondents, 274 (75.9%) of them has awareness about risky sexual behaviours, about 276 (76.5%) of the participants have an awareness over the consequences of unsafe sex (keto et al., 2020). A quantitative, cross-sectional, descriptive study conducted in the Ilorin, the state capital of Kwara State, Nigeria in 2019, with the aim to evaluate the knowledge of high-risk sexual behaviours (HRSB) and practices among senior secondary school students in Ilorin, showed that the participants had fairly poor knowledge of high risky sexual behaviours (HRSB) and males are more prone to high-risk sexual behaviour than females and gender was found to be in a statistically significant (with a P-value of < 0.005) (Odeigah et al., 2019). This shows a differences from the cross-sectional study conducted in China, it showed that girls had more knowledge compared to boys. A study conducted in Port Harcourt, River State, Nigeria in 2021, was coordinated to evaluate the effect of exposure to sex education on 362 adolescents' sexual behaviours using a survey-based study, the result revealed that 90.8% have heard or read about sex education, only 4.6% indicated they have a good knowledge of sex education. Comparatively, 54.6% indicated that they first heard or read about sex education from the school (Osadolor et al., 2022).

A study conducted in Lagos, south-western Nigeria in 2022, implemented the use of a pre-tested self-administered questionnaire assess the level of knowledge towards sex education among 378 secondary school students. The result of the study showed that most of the respondents 309 (82.1%) had a good knowledge of sex education and that knowledge of sex education increases as class of students increases to SS2 (Ademuyiwa et al., 2022).

Across-sectional study of 1019 secondary school students conducted in Plateau State, Nigeria in 2017. The data obtained for the study involved the use of self-administered questionnaires; the aim is assessing background sexual knowledge in boarding secondary schools in a rural community in Plateau State. The result obtained from this study revealed that most of the students 57.7% of them had good sexuality knowledge (Banwat et al., 2017).

A cross-sectional study conducted in Ogbomoso, Oyo State, South West Nigeria in 2017, with a total of 375 participants revealed that less than half (41%) of the

participants had good knowledge of risky sexual behaviours (Idowu et al., 2017). The knowledge of risky sexual behaviours obtained from these studies were fairly good, with few being low like the study conducted in Ogbomoso, Oyo State, Nigeria, which indicates that the information about sexual activities is being decimated to these adolescents through various ways and the worst of all being the internet through pornographic videos. I recommend that secondary school bodies take it upon themselves to appropriately inculcate good knowledge about sexual activities to their students.

Practice of risky sexual behaviours

Report of the National Youth Behaviour Risk Survey in 2017, showed that 19% of all sexually active adolescents in the United State consumed alcohol or used other drugs before their last sexual intercourse. This study also indicated that many high school students engaged in health-risk behaviours which was associated with the leading causes of death among persons in the United States. These health-risk behaviours are 9.7% had had sexual intercourse with more than four people during their life time. 8.8% of the adolescents have also began smoking (Thepthien, 2022). Research in Thailand on RSB conducted in 2022 using a cross-sectional data collection by applying an Internet-based survey using Lime software. This study was conducted with 872 sexually-active respondents, with the mean age of 15.6 years, the result of the study showed that 69.5% had practiced sex risk behaviour without contraception, with the use of cannabis and smokes cigarettes (Thepthien, 2022). A survey conducted in South Korea in 2019 found that the rates of early initiation of sexual activity was 1.4%, consumption of alcohol was 10.3%, smoking (from an age of 12 years and younger) was 4.8% (Valencia et al., 2019). An institution based descriptive cross-sectional study was conducted in south western Ethiopia among Metu secondary and preparatory school students in 2019, with the aim assess the practice of risky sexual behaviours among the 361 participants in Metu secondary and preparatory school adolescent. The result showed that out of the total study participants, 22.7% had previously practiced in sexual activity of which 61.7% had more than one sexual partner. From the participants who had practiced sex, 19.8% had always used condom during their sexual intercourse with their partners, 22.2% uses condom sometimes and 58% had never used condom during sexual intercourse, while 58% never used condom during sexual intercourse (keto et al., 2020).

A study conducted in Sub Saharan Africa (SSA) consisting of 14 SSA countries in 2021 showed that most countries had a higher percentage of male adolescents than female adolescents reported to have had more than one partner in the last 1 year. On the other hand, a lower percentage of young male reported to have had

condomless sex when compared to young female. Results of 84.5% in Sierra Leone to 19.8% in Gabon for the male adolescents and from 93.2% in Sierra Leone to 32.6% in Gabon for the female adolescents. In this multilevel analyses, condomless sex was associated with wealth, schooling and place of residence for both female and male adolescents (Valencia et al., 2019). A study in Ghana conducted in 2012 showed that 32.5% had multiple sexual partners, 33.5% had had sex and 73.8% had not used a condom at last sexual intercourse (Pengpid S, Peltzer, 2015).

A cross sectional study conducted in Gindiri community, Mangu Local Government Area of Plateau State, Nigeria, consisted of 1019 secondary school students and the data was obtained from the participants using self-administered questionnaires. The aim of this study was to assess the practices of adolescents in boarding secondary schools in a rural community, Plateau State and the results of the study showed that the participants sexual practices were shown to be high and about 40.5% of the participants had started engaging in sexual activities and their first sexual partner was either a neighbour (38.0%) or a family relation (29.5%) (Banwat 2017).

A cross-sectional study was conducted in 2018 among in-school adolescents in Ibadan North East Local Government Area (IBNELGA), Nigeria. The total number of respondents was 240. The study aimed at assessing adolescent sexual practices and the result showed that out of the respondent that are sexually experienced, 48.1% of them currently had more than one sexual partner. 95.0% of the respondents had the intention of engaging in risky sexual behaviour of which 68.3% with high risk and 26.7% had low risk (Modupe et al., 2019). A cross-sectional descriptive study of 300 in-school adolescents' participants selected using multi-stage random sampling technique conducted in a rural community in Rivers State, South-South Nigeria 2015. The aim of the study is to determine the sexual behaviours, practices and contraceptive use among secondary school adolescents in Elele, Rivers State, Nigeria. The result of the study showed 45% of the participants in this survey had had their first sexual debut and 84.3% of these participants were sexually active in the last six months prior to this survey (Duru et al., 2015).

A cross-sectional study conducted in Ogbomoso, Oyo State, South West Nigerian 2017, with a total of 375 participants revealed that 41% of the participants had their sexual debuts before the age of 14 years. About 65.9% of the sexually active participants had sex without using condom in their last sexual experiences; 5.6% had more than one sexual partner (Idowu et al., 2017).

Factors associated with risky sexual behaviours

A study carried out in Cambodia, south eastern Asia in

2014 with the aim of assessing the factors associated with risky sexual behaviours among unmarried most-at-risk young people in Cambodia. The result of the student showed that boys with higher levels of risky sexual behaviours were significantly more likely to live in an urban area and had completed 9 years and more of formal education and were not currently living with parents. On the other hand, girls with higher levels of risky sexual behaviours were significantly less likely to have completed 9 years and more of formal education and to have both parents alive. Both boys and girls with higher levels of risky sexual behaviours were not currently in school, unemployed, consumed alcohol heavily, were illicit drug users, and were HIV positive (Yi et al., 2014). Research in Thailand on risky sexual behaviours conducted in 2022 using a cross-sectional data collection by applying an Internet-based survey using Lime software. Study was conducted with 872 sexually-active respondents with the aim to determine the sexual risk behaviours and related factors of sexually-active adolescents in educational institutions in Thailand, the result of the study showed that nearly one in seven (13.6%) of the participants had experienced sexual harassment, while over one in five (22.6%) had experienced physical and/or emotional abuse, and/or physical or emotional neglect (22.7%). More than two-thirds of the participants (69.2%) had viewed pornographic media before, with males having a significantly greater proportion of porn-viewing behaviour than females. Use of drugs and drinking at least one alcoholic beverage (40.9%), smoking tobacco (21.4%), and smoking e-cigarettes (20.8%) in the last 30 days prior to the study. Recreational use of marijuana in the past year was reported by 6.9%, with males having a significantly higher proportion of substance use than females for most substances. About one in ten had a history of unintended pregnancy; 6.5% of male students reported that their partner had an unintended pregnancy, while 14.3% of female students reported that they had experienced an unintended pregnancy (Thepthien and Celyn, 2022). A systemic review conducted in Iran in 2019, titled contributing factors to high-risk sexual behaviours among Iranian adolescent girls with the aim of determining factors contributing to high-risk sexual behaviours in Iranian adolescent girls, the systemic review was able to deduce four essential factors; school, community, family and peer group (Alimoradi et al., 2019).

A school-based cross-sectional study was conducted in Wolaita Sodo town, Southern Ethiopia in 2020, with a multistage sampling employed to select a random sample of 830 participants. The aim of the study was to determine the factors associated with risky sexual behaviours among secondary and preparatory students in Wolaita Sodo town, Wolaita zone, Southern Ethiopia. The result of the study showed that the factors

associated with risky sexual behaviours are; age, sex, participant's mothers alive, perception of family's economic status, history of school drop, having sexually active close friends and peer group, vaccine for sexually transmitted infections and sexual transmitted diseases, parent monitoring, smoked cigarette, consumed alcohol, curability of sexually transmitted infections and sexual transmitted diseases (Asnake et al., 2021). A study aimed to determine the correlates of sexual risk behaviours among adolescents in Mozambique in 2015 showed that among those that participated in the study that had had sex, 41.5% had early sexual debut before the age of 14 years, 59.4% engaged in multiple sexual risk behaviour, 57.9% of them had multiple sexual partners, 42.0% of them had not used birth control at last sexual intercourse and 25.0% of them had not used a condom (Pengpid and Peltzer, 2021). A cross-sectional study conducted in Ido-ekiti, Ekiti state, South-West Nigeria in 2017 with the aim of assessing the risk factors of early sexual debut among secondary school students in Ido-Ekiti, South-West Nigeria showed that the sex of the respondents was found to be associated with early sexual debut as shown that more males than females were found to have had early sexual debut. More than two-thirds (66.7%) of the participants who took alcohol had early sexual exposure compared with more than three-quarters (91.4%) of those who did not take alcohol with no early sexual exposure. Having friends who engage in sex and intake of alcohol were also significantly associated with early sexual exposure, about a quarter (24.2%) of the participants who had friends who engaged in sexual activities also had early sexual debut compared with less than one-tenth (6.6%) among those whose friends did not engage in sex (Durowade et al., 2017). A cross-sectional study conducted in Ogbomoso, Oyo State, South West Nigeria in 2017, with a total of 375 participants with the aim of determining factors associated with risky sexual behaviours among secondary school students in Nigeria revealed that 23% of the participants had risky sexual behaviours, the proportion of participants with risky sexual behaviours was significantly higher among those in middle socioeconomic class, lower academic classes compared to those in higher academic classes, it was also revealed that risky sexual behaviours was prominent in participants with age of sexual debut less than 10 years, those in a relationship, and those with poor knowledge of risky sexual behaviours. Alcohol consumption was the commonest substance used, reported by 60% of the respondents. Pregnancy resulted from 12.4% of the participants who had had sex with more than half (58%) of such pregnancies were aborted (Idowu et al., 2017). From the studies obtained, it showed that the major factors of risky sexual behaviours are: consumption of alcohol, use of illicit drugs, watching pornographic videos, peer pressure, parental neglect.

Consequences of the practice of risky sexual behaviours

According to Centres for Disease Control and Prevention a study conducted in 2018 showed that young people made up 21% of all newly diagnosed HIV cases, young men made up 88%, and young women made up 12%, 2018 also showed that almost 180,000 babies were born to teen girls. In 2019 young people made up about half of the 20 million new STDs reported (Centers for Disease Control and Prevention, 2019). A review titled negative outcomes of teen sexual activity was conducted in the United States of America in 2017 and it showed that Teen pregnancy and birth are not the only consequences that result from sexual activity, other consequences are HIV, STDs with teens representing a large majority of newly-diagnosed STD cases, these STDs are gonorrhoea, chlamydia and syphilis that are often present throughout these teens high school and early adulthood life (Latta, 2017). Consequences associated with risky sexual behaviours are; guilt, apprehension, regret, fear of commitment, loss of self-confidence, depression and suicide and slow personal development (Emotional Consequences of Sexuality Among Minors | California CACI Removal Lawyer: www.cacilawyer.com).

Research in Thailand on risky sexual behaviours conducted in 2022 using a cross-sectional data collection by applying an Internet-based survey using Lime software. Study was conducted with 872 sexually-active respondents, with the mean age of 15.6 years reveal that the consequences of risky sexual behaviours may negatively affect health by directly contributing to risk and spread for sexually transmitted infections and sexual transmitted diseases and unintended pregnancy (Thepthien and Celyn, 2022). Research conducted in the Netherlands in 2016, it showed the consequences associated with risky sexual behaviours to be unprotected sex which could lead to the acquisition of sexually transmitted infections and sexual transmitted diseases, undesirable sexual outcomes such as problems with orgasm and sexual arousal, increased risk of having multiple lifetime sexual partners, unwanted pregnancy, furthermore, recent studies have found that early sexual intercourse is associated with depression and low self-esteem (Nogueira et al., 2016). A study titled Premarital Sexual Behaviour and its Impact on Health among Adolescents conducted in 2019 showed that the health impact of premarital sexual behaviour among adolescents are, teenage unwanted pregnancy, loss of family support, abortion, substance abuse, regrets, sexually transmitted infections and sexual transmitted diseases, guilt, HIV/AIDS, loss of self-respect, depression and even suicidal death (Shrestha, 2019).

METHODOLOGY

The study area was secondary schools in Gwagwalada.

Gwagwalada is a town within the Federal Capital Territory (FCT), Abuja, Nigeria. Gwagwalada is one of the six area councils of FCT. The official population figure at the 2023 census was 507,000 people with a 6.74% increase from 2022. It has 1069.589km², a density of 385.4/km², and its geographical coordinates are 8°56'29" North and 7°5'31" East. Gwagwalada is home to several institutions and government establishments, including the University of Abuja mini campus, University of Abuja Teaching Hospital, Nigerian Custom's College and many private and government secondary schools. People from different geopolitical zones of the country and resident within Gwagwalada. The Federal Capital Territory is home to many public and private rehabilitation centres such as Melville health care resources, synapses services and olive prime psychological centre. Many private and public health care facilities are also resident in the Federal Capital Territory, many situated in Gwagwalada. Among health centres are the University of Abuja Teaching Hospital, a tertiary health institution with many departments. Many primary and secondary health facilities are within Gwagwalada with available health care workers.

Study population

The study population includes adolescents between the ages of 10 to 19 years, in secondary schools who are willing to participate in the study. Three secondary schools in Gwagwalada area will be evaluated. Two public schools: junior secondary school (Phase 3 Junior Secondary School), senior secondary school (Hajj camp secondary school) and one private school (Christ Academy Gwagwalada).

Study design

Study is a descriptive cross – sectional study among students in secondary schools in Gwagwalada, using self-administered questionnaires.

Sample size

Adequate minimum sample size will be calculated from the cross-sectional study using the Leslie - Kish formula for descriptive studies.

$$N = Z^2 [P(1-P)/D^2]$$

Z = the standard normal deviate, set at 1.96 corresponding to 95% confidence level.

P = the prevalence of risky sexual behaviours among secondary school students was 23% (0.23%) as from the study conducted in that area.

D=error tolerated, set at 0.05

$$N = 1.96^2 [0.23(1-0.23) / 0.05^2]$$

$$N = 3.84[0.23 \times 0.77 / 0.0025]$$

$$N = 3.84 \times 0.1771 / 0.0025$$

$$N = 0.680/0.0025$$

$$N = 272$$

Addition of 10% for non-response rate puts the sample size at =

$$= 272 \times 10 / 100$$

$$= 27.2$$

$$= 272 + 27.2 = 299.2$$

$$= 299$$

$$= 300.$$

Inclusion criteria

Secondary School students aged 10 – 19 within the selected secondary schools in Gwagwalada who are willing and available at the time of data collection and consented to participate in the study.

Exclusion criteria

Children that were sick as at the time this study was conducted.

Sampling technique

A multistage sampling method was used at the level of choosing schools, class and students. In the first stage, all secondary schools in Gwagwalada, both private and public was obtained to form the sample frame. In the second stage, selection of the secondary schools was done using balloting with replacement from the sample frame and three secondary schools were selected because the private school has both Junior and Senior secondary together and the public secondary school do not have the Junior and senior Secondary schools together. The schools were Hajj camp secondary school (public senior secondary school), Phase 3 Junior Secondary School (public junior secondary school) and Christ Academy Gwagwalada (private school with both senior and junior classes). In the third stage, the distribution was done randomly using simple random sampling technique until sample size was reached of a minimum sample size of 300 (including 10% added for non-response) which was arrived at using the prevalence study formula.

Data collection instrument

The primary data would be obtained from the respondents using a self-administered questionnaire. The questionnaire will be derived from previous studies on risky sexual behaviours among secondary school students and it would be structured comprising mostly of

closed ended questions. The questionnaire is made up of introduction of the researcher, the benefits of the study, the purpose of the study, assurance of their confidentiality, voluntary participation and freedom to withdraw at any point of feeling inconvenient with the study. It also contained the assent to consent and instruction on filling the questionnaire. The questionnaire proper is made up of 5 sections (A, B, C, D, E). Section A comprise of the socio-demographic such as age last birthday, gender, ethnicity, religion, type of school, level of education of mother and father etc. Section B is designed to determine the knowledge about sexual activities among secondary school students. Section C seeks to determine the practice of risky sexual behaviour among secondary school students. Section D comprises of the factors associated with risky sexual behaviour among secondary school students. Section E is made of questions to identify the consequences of risky sexual behaviour among secondary school students.

Data collection technique

This study instrument is a self-administered questionnaire based-survey. The questionnaire is written in English language.

Data analysis plan

The data is collected and coded, entered into a computer and analyzed using the Statistical Package for Social Sciences (SPSS) 20.0. The analysis aims to find the associations between sociodemographic, knowledge, practice, factors and consequences of risky sexual behaviours among secondary students. The descriptive analysis such as mean, standard deviation and inferential analysis such as Chi-square would be used for data analysis. In this study, a p-value of $< \text{or} = 0.05$ will be considered statistically significant, with a 95% confidence level and a 5% margin of error. The questionnaire would be stored in a place that is safe from destruction by water or fire and where unauthorized person would not have access to them.

Ethical consideration

Ethical approval will be obtained from the Health Research and Ethics Committee of the University of Teaching Hospital.

The objectives of the study were explained to the participants who were legally competent with a written consent will be obtained from the participants before the interview, participation is voluntary and every participant would be given the liberty to withdraw from the research at will and with no consequences. There would be no incentive given for participation. Permission would be

obtained from the principal and other regulatory bodies of the schools.

Limitations of the study

Considering the sensitive nature of the research, the attitude of the respondents towards the study would be a challenge and this would be aided with the help of the teachers and counsellors in the schools. There could also be deliberate false responses from some of the respondents due to the questionnaire design and sensitive nature of the research topic, this can be resolved by adequate privacy and strict confidentiality provided to each respondent.

RESULTS AND DISCUSSION

Socio-demographics characteristics of respondents

The ages of the respondents are between 10 to 19 years. Most of the respondent fell within the age of 15 years with a frequency of 60 (20.0%). The mean age of the respondents is 14.23 ± 2.0 SD. Majority of the respondents were males with a frequency of 160 (53.3%) and the Christianity was the main religion with a frequency of 236 (78.7%). Nuclear family 242 (80.7%) was the main family type and 237 (79.0%) of the participants had married parents. 185 (61.7%) of the respondents had fathers with tertiary level of education while 163 (54.3%) of the respondents had mothers with tertiary level of education (Table 1).

Knowledge about risky sexual behaviours

Table 2 shows that out of 300 respondents 199 (66.3%) of the respondents have good knowledge of risky sexual behaviours. Table 3 shows that 260 (86.7%) of the respondents have a general awareness of risky sexual behaviours. Table 4 shows that school 114 (43.8%) was the main source of knowledge about risky sexual behaviours to the respondents. The respondents also had good knowledge of sexually transmitted diseases 256 (85.3%) and contraceptives 216 (72.0%).

Socio-demographics

This study was conducted with the objectives of studying the knowledge, factors, practice and consequences of risky sexual behaviours among secondary school students in Gwagwalada. The study recorded a response rate of 100%, this is similar to what was obtained in a cross-sectional descriptive study conducted in the Ilorin.²⁵ This might be due to the use of similar methodology and the nature of the respondents. From the findings of this study, majority of the respondents were within the age

Table 1: Sociodemographic characteristics of respondents

VARIABLES	FREQUENCY (%)
AGE (YEARS)	
10	14 (4.7)
11	17 (5.7)
12	25 (8.3)
13	48 (16.0)
14	53 (17.7)
15	60 (20.0)
16	50 (16.7)
17	22 (7.3)
18	8 (2.7)
19	3 (1.0)
GENDER	
Male	160 (53.3)
Female	140 (46.7)
TYPE OF SCHOOL	
Public	150 (50.0)
Private	150 (50.0)
PRESENT CLASS	
Jss1	10 (3.3)
Jss2	45 (15.0)
Jss3	46 (15.3)
Ss1	44 (14.7)
Ss2	86 (28.7)
Ss3	69 (23.0)
RELIGION	
Christianity	236 (78.7)
Islam	64 (21.3)
ETHNICITY	
Igbo	77 (25.7)
Yoruba	68 (22.7)
Hausa	37 (12.3)
Igbira	18 (6.0)
Igala	26 (8.7)
Gbagyi	8 (2.7)
Others	66 (22.0)
FAMILY TYPE	
Nuclear	242 (80.7)
Single parent	20 (6.7)
Extended	31 (10.3)
Guardians	5 (1.7)
Sibling household	1 (0.3)
Others	1 (0.3)
MARITAL STATUS OF PARENTS	
Married	237 (79.0)
Single	52 (17.3)
Separated	9 (3.0)
Divorced	2 (0.7)
FATHER'S LEVEL OF EDUCATION	
No formal education	30 (10.0)
Primary education	14 (4.7)
Secondary education	63 (21.0)
Tertiary education	185 (61.7)
Others	8 (2.7)
MOTHER'S LEVEL OF EDUCATION	
No Formal Education	32 (10.7)
Primary education	13 (4.3)
Secondary education	86 (28.7)
Tertiary education	163 (54.3)
Others	6 (2.0)

group of 10-19 years and the mean age was 14.23 years, respondents who were 15 years constituted the highest number with a frequency of 60 (20%) which is similar to research carried out in Port Harcourt with an age group of

15-19 years. This age range is a reflection of the adolescence and youth period which is characterized by the desire to explore and be more experimental. They were more Christians 236 (78.7%) than Muslims 64

Table 2: General knowledge of risky sexual behaviours

KNOWLEDGE	FREQUENCY (%)
Good knowledge	199 (66.3)
Poor knowledge	101 (33.7)
Total	300 (100%)

Table 3: Awareness of risky sexual behaviours

VARIABLES	FREQUENCY (%)
KNOWLEDGE OF RISKY SEXUAL BEHAVIOUR	
Yes	260 (86.7)
No	40 (13.3)

Table 4: Knowledge about risky sexual behaviours

VARIABLES	FREQUENCY (%)
SOURCE OF KNOWLEDGE	
Family	76 (29.2)
Friends	51 (19.6)
School	114 (43.8)
Internet	37 (14.2)
Social media	41 (15.8)
Radio	14 (5.4)
Television	36 (13.8)
DEFINITION OF RISKY SEXUAL BEHAVIOURS	
Yes	253 (84.3)
No	47 (15.7)
TYPES OF RISKY SEXUAL BEHAVIOURS IDENTIFIED	
Engaging in unprotected sex with a single partner	181 (60.3)
Multiple sexual partner	212 (70.7)
Multiple boyfriends/girlfriends	148 (49.3)
Substance abuse	93 (31.0)
KNOWLEDGE OF SEXUALLY TRANSMITTED INFECTIONS	
Yes	256 (85.3)
No	44 (14.7)
KNOWLEDGE OF CONTRACEPTIVES	
Yes	216 (72.0)
No	84 (28.0)
TYPES OF CONTRACEPTIVES IDENTIFIED	
Condom	194 (64.7)
Birth control pill	54 (18.0)
Intrauterine contraceptive device	19 (6.3)
Implants	23 (7.7)

(21.3%) (approximate ratio of 4:1). The religion distribution may be due to the fact that Gwagwalada has more Christians than Muslims. This is similar to the study in Lagos where the Christians were more with a frequency of 238 (63.3%) while Islamic religion 133 (35.4%) (Ademuyiwa et al., 2022). This study shows that the male respondents were 160 (53.3%) while female was 140 (46.7%), this is similar to the same study conducted in Lagos which shows the male respondents were 196 (52.1%) while female was 180 (47.9%). This study also showed that Senior Secondary 2 (SS2) were the highest with 86 (28.7%) which is also similar to the study conducted in Lagos, showed that Senior Secondary 2 (SS2) were the highest 217 (57.7%) (Ademuyiwa et al., 2022). About two-thirds of them 242 (80.7%) belonged to

nuclear family structure and 237 (79.0%) lived with both parents married. Results on the selected parental information show that 61.7% and 54.3% of the respondents have fathers and mothers who had attained tertiary level of education respectively as shown in (Table 1). These are similar findings reported by Osadolor et al., (2022).

Knowledge of risky sexual behaviours

According to the results of the study, 199 (66.3%) of the respondents have good knowledge, this is in agreement with a study conducted in Ilorin (Odeigah et al., 2019), but it is contrary to a study conducted in Port Harcourt, which stated that only 4.6% indicated they have a good

knowledge of sex education (Osadolor et al., 2022). Majority of the respondents got their information about sexuality from schools with a frequency of 114 (43.7%) (Table 2). This study also shows that the family which is usually considered as the main source of socialization and information in Nigeria is giving some information about sexuality with a frequency of 76 (29.2%) which is not encouraging, the quality of information is likely to be insufficient or sometimes wrong which may lead to respondents in this study obtained information regarding their sexuality and reproductive health from their friends 51 (19.6%), social media 41 (15.8%) and from the internet 37 (14.2%). This finding is similar to a similar study conducted in Port Harcourt and Lagos (Osadolor et al., 2022; Ademuyiwa et al., 2022). This finding is not surprising because the educational system has made good effort to educate its students about sex and its consequences with topics like reproductive health and provision of adequate counselling services. The results showed that knowledge level was highest among fathers and mothers with tertiary level of education with a frequency of 160 (%) and 144 (%) respectively, compared to those with no formal education with frequency of 22 (%) and 25 (%). It had a p value of 0.109 and 0.318 respectively, thus, the knowledge of parents concerning RSB is not a determinant on the knowledge level of the respondents (Table 2). No significant relationship was found between the socio demographics and their knowledge level, mostly because the knowledge was not dependent on age, sex, religion, ethnicity, marital status of parents, level of educational qualification of parents. More than half of the respondents about 256 (85.3%) have knowledge of sexual transmitted infections and about 216 (72.0%), they also had knowledge of contraceptives, and condom was the main contraceptive known with a frequency of 194 (64.7%) compared to others. This is in accordance with the study conducted in Lagos (Ademuyiwa et al., 2022).

Practice of risky sexual behaviours

Out of the 41 (13.7%) respondents who practiced sex only 18 (44%) of them practiced condomless sex this is in agreement with a study conducted in Oyo state.²⁹ This is largely due to reduced awareness of sexual protection in this part of our world and also due to the stigmatization of adolescent or young adults associated with acquisition of condoms. Out of the 300 participants for this study, only 41 (13.7%) of them had practiced risky sexual behaviours. This finding is contrary to a similar study conducted in Ethiopia, Sierra Leone and Gabon (keto et al., 2020; Valencia et al., 2019). This difference can be explained by the fact that, the schools studied are owned by faith-based institutions where religious and moral values are taught repeatedly to the students and the

decreased practice of risky sexual behaviours could be associated with the increase level of knowledge among the respondents. Out of the 300 respondents from this study, the ages at which most respondents indicated their sexual debut are 8 years 4 (1.3%) and 14 years 4 (1.3%). This is in agreement with a study conducted in Mozambique (Pengpid and Peltzer, 2015). The findings from this study found a statistically significant association (P-value of 0.016) between the gender of the respondents and the onset of sexual activity where more males had a frequency of 29 (%) being more sexually active at an earlier age than females. This can lead to negative complication for their future reproductive health because it increases the risk contracting of sexually transmitted diseases. This study revealed that there is no statistically significant relationship (P-value of 0.795) between the different types of schools studied. This is attributed to the increased level of awareness and knowledge obtained in schools.

Conclusion

This study was conducted with the objectives of studying the knowledge, factors, practice and consequences of risky sexual behaviours among secondary school students in Gwagwalada and it was discovered that 260 (86.7%) had good knowledge of risky sexual behaviours making up about two – third of the respondents and also 41 (13.7%) of the respondents had practiced risky sexual behaviours which is about one – seventh of the respondents. Engaging in unprotected sex with single partner 25 (70%) being the main form practiced. The age of sexual debut indicated was 14 years and under. Majority of the respondents agreed that peer pressure, substance use, by force, social media and curiosity were the main factors than lead to the practice of risky sexual behaviors. This study derived that the consequences associated with risky sexual behaviors practiced are: lack of concentration and interest in studying, pregnancy, abortion and transmission of sexually transmitted diseases like gonorrhea and HIV/AIDS.

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