

Personal Variables as Predictors of Risky Sexual Behaviours among Undergraduates of Universities in Edo State, Nigeria

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ABSTRACT

This research examined individual characteristics that influence risky sexual conduct among university undergraduates in Edo State. The study's precise goals were to ascertain the degree to which personal characteristics (sex, age, educational attainment, and residential status) explain differences in many and unprotected sexual behaviours among undergraduate students at Edo State institutions. The study posed and examined two possibilities. For the study, a survey-based correlational strategy was used. All 73,439 ordinary undergraduate students enrolled in Edo State universities made up the study's population. A sample of 2,938 undergraduate students, or 4% of the total population, was selected from the universities that were included in the study. The study used an adaptation of Turchik's (2007) Sexual Risk Survey (SRS) scale. Unprotected sex had a Cronbach alpha of 0.71, whereas many sexual acts had a Cronbach alpha of 0.78. Binary logistic regression was used to analyse the obtained data (BLR). Every hypothesis was examined at the significance level of 0.05. The findings demonstrated that among Edo State university undergraduates, personal characteristics (sex, age, educational attainment, and residential status) predicted engagement in hazardous sexual behaviour (unprotected sexual activities and numerous sexual activities) ($p < 0.05$). Additionally, the results indicated that among undergraduate students at Edo State institutions, personal variables strongly predicted changes in

unprotected sexual behaviours by 13 to 17 percent and in having many sexual partners by 10 to 14 percent. The provision of information, orientation, and counselling services to male and female university freshmen in Edo State was recommended as one of the responsibilities of professional counsellors, trainee counsellors, and counsellor educators.

Keywords: Personal Variables, Predictors, Risky Sexual Behaviours, Unprotected Sex activities, Multiple Sexual Partners

INTRODUCTION

The prevalence of sexual activity in the university setting is so high that young people are influenced to participate in dangerous sexual behaviours by their surroundings, what they read in papers, what they watch in films, what they observe their peers doing, and even what they observe adults doing. Thomas, Chandra, and Selvi (2015) noted that young people today watch adults having several sexual partners and having sex while intoxicated, and they thus emulate this behaviour; women also display their nudity for fashion. Adolescents' impressionable minds are often thrown into emotional states by films and television shows, which ultimately cause them to experiment with what they have seen without fully understanding the dangers.

Sexual practices that put a person at risk for various STIs, such as HIV, are referred to as risky sexual behaviours. These behaviours include having several sexual partners, engaging in unprotected sexual activity, seeing or reading pornographic content, engaging in forced or coerced sexual activity, and engaging in sexual activity for rewards. According to Ahmadian, Hamsan, Abdullah, Samah, and Noor (2014), these include early sexual debut, unreported sexual activity, inconsistent condom use, high-risk partners (drug injectors), survival sex (sex for cash, drugs, food, or shelter), and sex with a partner who has multiple partners at the same time. Risky sexual behaviour can take several forms ranging from a larger number of sexual partners, or engaging in risky sexual activities to sexual intercourse under the influence of substances such as alcohol or cocaine (Azuike, & Iloghalu, 2015). Any activity that raises the likelihood of unfavourable outcomes from sexual intercourse is also considered risky sexual behaviour (Azuike & Iloghalu, 2015). These behaviours fall into two main categories: indiscriminate behaviours, such as having several partners, having partners who are unknown or dangerous, and failing to discuss risky subjects before sexual activity, as well as failing to take precautionary measures like using condoms and birth control.

The primary cause of the increased prevalence of STIs, including chlamydia, gonorrhoea, and syphilis, is risky sexual activity. STI rates are often higher in youths than in those over 40, with the greatest incidence of gonorrhoea occurring in those aged 15 to 19 (Edobor & Ekechukwu,

2014). For instance, unsafe sexual practices may result in an unintended pregnancy, which has detrimental effects. Unwanted pregnancies have been linked in the literature to teenage school dropout, the onset of diseases and even deaths from STDs, including HIV/AIDS, and abortion (Envuladu, Agbo, Ohize, & Zoakah, 2013).

Sexuality problems may naturally surface during school hours, and students' sexual conduct may have an impact on their psychological and physical development. Students' health is therefore still a worry, and if the issues are not adequately resolved, they worsen and the cycle gets more vicious (Idoko Muyiwa & Agoha, 2015). Nigeria created a national health strategy in 2000 to avoid juvenile conduct that might result in STIs (including HIV), unintended pregnancies, and school dropouts. Lack of knowledge on the contextual elements impacting young people's sexual behaviour at universities has made it difficult to implement effective interventions in Nigeria (Adegoke & Slap, 2003).

Kissing should be avoided before engagement since it is unquestionably more personal than handholding or embraces. Mouth-to-mouth kissing is a simple method to jump straight to more explicit sexual contact and is really one of the first stages of sexual intimacy. Intoxicating kisses enhance sexual attraction, which in turn encourages dangerous sexual activity. A man and woman kissing on the lips conveys ownership in a beautiful and strong sexual sense, which is bad for teenagers. On the other side, hugging entails much greater physical contact and, if done carelessly, might result in dangerous sexual practices.

Bankole (2004) pointed out that sexually explicit movies expose young people to adult issues at an “impressionable age.” Others opine that the use of pornographic materials as well as knowledge and use of contraceptives, especially the condom that has been excessively advertised, has contributed immensely to the involvement of adolescents in sexual practices (Oladipo, 2014). These and other evidence in the literature show that a real problem exists. The rate of risky sexual behaviours continue to be on the increase due to many factors including dearth of information regarding adolescent sexuality and even socio-demographic characteristics, particularly gender, location, and age among others. Supporting this, Adegoke (2003) noted that the level of involvement in risky sexual behaviour among undergraduates in learning institutions in Nigeria could be attributed to personal variables.

Personal variables are personal attributes or characteristics that distinguish one person from another (Adegoke, 2003). For instance, the information likely to be required of any worker for a paid employment may include one or more of: their sex, age, marital status, previous work experience, educational qualification and religion among others. This clearly shows that personal variables used to describe people may differ from person to person and context to context. Sex

and gender are two closely related terms that are often mistaken and used interchangeably in the academia (Adigun, Onihunwa, Irunokhai, Sada & Adesina, 2015). The former (sex) is simply a biological construct that classifies living things (animals) into male or female while the latter (gender) is a sociological construct that refers to a wide range of biological, emotional, mental, behavioural, and physical characteristics that can be attributed to “maleness” or “femaleness” of an individual.

Even while gender describes the range of physical, biological, mental and behavioural characteristics pertaining to and differentiating between the feminine and masculine population, Adigun, *et al* (2015) added that it is often used interchangeably with the term “sex” which is the biological range of “male” and “female”. Discussing the influence of sex on involvement of risky sexual behaviours among students, Omonijo, Uche, Nwadiafor, and Rotimi (2013) noted that males often have a higher sex drive than their female counterparts at puberty. Hence, they naturally have a higher urge for sex. He added that males are more likely to have multiple sexual partners, experience early sexual initiations and even try to experiment with the opposite sex; things they see among adults or even watch in “adult movies” from a tender age of 14years or less.

Age of the students refers to the length of time one has lived as measured in chronological terms of days, weeks, month and years. It is another personal factor that maybe influencing risky sexual behaviour among students in universities (Adegoke, 2003). It has been observed that the average age at menarche is decreasing worldwide; there is a declining age of first sexual debut, increasing number of sexually active adolescents and high risky sexual behaviours among youths (Omonijo, Uche, Nwadiafor, & Rotimi, 2013). Recent studies have shown that adolescents are becoming sexually active at an early age than in past years. Thus, young people are facing a longer period of time during which they are sexually matured and sexually active before marriage. These sexual behaviours may also be traced to the residential status/ accommodation type of students on campus.

Level of study is a personal attribute that is used to describe students in an academic institution of learning. It is a nominal attribute that helps to categorize students according to the number of years they have been in an institution from the time of their admission. It is conventional measured as 100level, 200level, 300level for first, second and third year students among others. In the university system, this level of study varies with respect to students’ course of study or discipline. For instance, the study duration of most courses in the Medical Colleges of the university takes five or more years while those in Education, Social and Management Sciences take just four years. In regards to risky sexual behaviour, Omonijo, *et al.*, (2013) submitted that many undergraduates in their first years do not indulge in risky sexual practices as much as their

colleagues in higher levels who are well adjusted and conversant with how to “maneuver their ways” for academic success in the system. They noted that most undergraduate students in their first two years often try not to indulge themselves with various socio-sexual activities that could erode their time for productive engagements in universities. Aside, level of study, the proliferation of risky sexual behaviour may be influenced by the residential status of students

Residential status of students describes the nature of a learner’s accommodation in the academic institution of learning. According to Bello and Ogunsanwo (2013), school-provided hostels and rented apartments off the university campus (private hostels) are the two major forms of accommodation that describe the residential status of undergraduates in universities in Nigeria. According to them, undergraduates living on-campus in school-provided accommodation usually have to obey some hostel rules regarding: how sanitation must be conducted around the hostel, when course mates or friends of the opposite sex are allowed to visit, when not to go out from the hostel and when to observe “light out” (go to bed). These measures often are put in place to curtail the excesses of students who might consider bringing into their room, the opposite sex to pass the night under the pretense of engaging in a “night study” or tutorial.

Lamenting on the influence of students’ residential status on their risky sexual behaviour, Bello and Ogunsanwo (2013) asserted that the inability of universities to provide accommodations for all admitted students has forced several students to look outside the campus for accommodation. This had led to the emergence of an unacceptable trend in most of our tertiary institutions in which male and female students cohabit in the same room; engaging themselves in various risky sexual behaviours. Supporting this view, Abubakar (2008), noted that residential status may contribute to involvement in risky sexual behaviour particularly among university undergraduates in non-school provided arrangements off-campus. He identified three categories of accommodations arrangement off-campus for students namely: students living off-campus alone in rented apartments (private hostels), students living off-campus with one or more persons in a rented apartment and students living off-campus with parents/guardian or relative in their apartment.

Off-campus living arrangements provides no restriction by the school management on students’ social life. Consequently, this freedom affords many students the opportunity to engage in all forms of indiscriminate sexual behaviours; bringing about rising rates of premarital sexual activity, escalating number of unmarried women terminating unplanned pregnancies and increasing prevalence of HIV infection as a result of sexual activities with multiple sexual partners. The risky sexual behavioural pattern of adolescents affects their growth and development. It is incumbent on counsellors to help undergraduates out of their risky sexual behaviours. Hence, the sole purpose of counselling is to ensure that those who avail themselves

live fulfilled and accomplished lives. The need to investigate factors predicting risky sexual behaviours of university undergraduates cannot be overemphasized. This study investigates socio-personal factor predicting risky sexual behaviour among university undergraduate students in Edo State.

HYPOTHESES

The following research hypotheses were tested:

1. Personal factors (sex, age, level of study, and residential status) do not significantly predict unprotected sexual activities among university undergraduates in Edo State
2. Personal factors (sex, age, level of study, and residential status) do not significantly predict having multiple sexual partners among university undergraduates in Edo State

LITERATURE REVIEW

The influence of gender as a predictor of risky sexual behaviour among students has been investigated by scholars in recent studies with equivocal results. Famutimi and Oyetunde (2014) examined risky sexual behaviour among secondary school adolescents in Ibadan North Local Government Area, Nigeria. Findings revealed that gender differences was statistically insignificant; however, the authors concluded based in findings that male students were more likely to engage in risky sexual behaviour than the female students. Ochieng (2013) undertook an in-depth study on risky sexual behaviour among adolescents attending public secondary schools in Nairobi; Kenya. Results among other findings showed that there was a significant association between gender and involvement in risky sexual behaviour with the males being more sexually active than the females. In a related study, Idoko, Muiyiwa and Agoha (2015) conducted a study on age, gender, school ownership, religiosity and family factors on sexual attitude and behaviour among undergraduate students of University of Ibadan, Nigeria. It was found that age, gender, school location, religiosity, family type, parental care/protection and maternal career/protection jointly predicted sexual depression, sexual preoccupation negatively family type jointly predicted sexual depression positively. Among other factors, sexual behaviour of undergraduates of the University of Ibadan was attributed to gender.

Shumba, Mapfumo and Chademaze (2011) conducted a study on the prevalence of concurrent sexual partnership among higher institution students in Zimbabwe. A convenience sample of 145 respondents (85 female and 60 males) was drawn. Furthermore, the study reveals that females were drawn to concurrent relationships by the wealth and generosity of their partners and to obtain sexual satisfaction. Male students on the other hand mostly (70%) attracted by beauty and

desire to acquire sexual experience. Female also were attracted to older partners for resources of the older partners while male also was attracted to older wealthy female though only (30%) to (70%) for females to older male partners. In summary, gender differences on students' involvement in unsafe sexual activities were reported. In a study carried out by Musbau (2010) on gender, religiosity and self-esteem as predictors of sexual attitudes and behaviour among polytechnic students in Nigeria. Utilizing a cross-sectional survey design, five hundred (500) students (212 males and 288 female) were purposively selected for the study. Multiple regression analysis was performed to determine the independent and joint predictors of sexual attitudes and behaviour while the t-test was use analyze the gender difference and self-esteem levels in sexual attitudes. Results showed that all the predictors inclusive of gender; jointly predicted sexual behaviour with 40 per cent variation from the independent variables.

In another research, Menon, Mwaba, Thankian and Lwatula (2016) investigated that early sexual debut, having multiple sex partners, and non-use of condoms are some of the risky sexual behaviors among young people in Zambia that makes them vulnerable to many health problems such as sexually transmitted infections (STIs), human immunodeficiency virus (HIV) and acquired immune deficiency syndrome (AIDS). The results showed that male students were more likely to report having had more than one sexual partner. However, they were more consistent in condom use compared to female students.

Oladipo (2013) investigated gender, religious affiliation, institution of learning and academic level as factors predicting sexual risk susceptibility among university undergraduates drawn from two Universities (one ministry-established and one private university) in South-Western Nigeria. Result of the analysis showed that sex of student was a significant predictor of sexual risk susceptibility. A related study on risky sexual behaviour among university students by Menon, Mwaba and Lwatula (2016) was predicted on early sexual debut, having multiple sexual partner school ownership, and non-use of condoms which are some of the risky sexual behaviour among young people that makes them vulnerable to many health problems such as sexually transmitted infections (STIs), HIV and AIDs. The results showed that male public students were more likely to report having had more than one sexual partner than male private school students.

Thomas, Chandra and Selvi (2015) examined sexual behaviour among people living with HIV in Chennai, in Southern part of India. More men than women reported to having extramarital relationships most often with a commercial sex workers or a friend, without condoms and usually under the influence of alcohol. Results showed that there were significant differences in sexual behaviour patterns between men and women.

The linkage between age and risky sexual behaviour has been of interest in recent times among

scholars. Many have arguably considered the variable a significant predictor of risky sexual behaviour in studies. Ahmadian, Hamsan, Abdulahi, Samah and Noor (2014) explored risky sexual behaviour among rural female adolescents in Malaysia. Results showed that age along with other variable (peer-sexual disorder, self-evaluation and attitude toward sexual health) were significant predictors of sexual intercourse in rural girls in Malaysia.

Azuike and Iloghalu (2015) investigated sexual behaviour among senior secondary school students in Nnewi North and Nnewi South Local Government Areas of Anambra State in South-Eastern Nigeria. More than half of them had multiple sex partners and learnt about sex from the media. Furthermore, involvement in risky sexual behaviour was more highly prevalent among senior secondary school students of higher age than those of lower age. In a related study, Acheampong, Ishmael and Yaw (2014) sought to fill a research void on adolescent problem behaviours in South Africa by examining individuals and contextual factors that affect sexual-risk taking behaviours among Black African adolescents in a poor community of the North West Province of South Africa. A representative sample was drawn by convenience sampling and data was collected by questionnaire and interview schedule. Using the logistic and Poisson regression analytical techniques, they found that age has no significant effect on risky sexual behaviours like lifetime sex, recent sexual activity and involvement with multiple sexual partners.

Envuladu, Agbo Ohize and Zoakah (2013) in their study, assessed the sexual activity among teenage girls with the aim of determining the personal and parental characteristics associated with teenage sexual behaviour in Nigeria. Sexual intercourse was seen to be more common among teenagers of single parents, of polygamous family (83.3% and 61.5%) and those whose father had no formal education (66.7%) and were unskilled workers (52.7%). Lastly, results showed that age of respondents had a significant relationship with their practice of illicit sexual relationship among the opposite sex ($p < 0.0001$).

Asampong, Osafo and Ahiadeke (2013) investigated adolescent and parents' perceptions of best-time for sex and sexual communications from two communities in the Eastern and Volta regions of Ghana: Four group interviews were conducted with parents and adolescents (both in school and out of school) from two communities (Somany & Adidome) in the Eastern Volta regions of Ghana with epidemiological differentials in HIV infection. Findings showed that parents and adolescents agreed that the best trimming for sexual activity among adolescents is determined by socio-economic viability. Results further showed that adolescents' involvement in sexual was influenced by age of adolescent and their age at first sex but not by gender. Magu, Wanzala, Mutugi, Ndahi and Peter (2012) investigated sexual risky behaviours among the youth in Kenya. The study was conducted among students in main and constituent campuses of Kenyan Universities namely Egerton, Maseno, Kenyatta, Jomo Kenyatta University of Agriculture and

Technology, Moi University, Mt Kenya University, Kimathi and Narok Constituent College Universities. Result from multivariate analysis showed that gender was a significant control variable when explaining the variability of condom use younger age group only. Hence, was concluded to predict variability in condom use among young age groups.

Level of study as a predictor of students' involvement in risky sexual behaviour has been carried in studies. Edobor and Ekechukwu (2014) examined the influence of adolescent high-risk sexual behaviour among secondary schools students in Port Harcourt metropolis, Nigeria. Among other findings, results revealed that adolescents are highly involved in high-risk sexual behaviours. Level of study in terms of class differences was found to predict students' involvement in risky sexual behaviour. Imaledo, Opirite, Peter-Kio and Asuquo (2012) examined the pattern of sexual risky behaviour of undergraduate in University of Port-Harcourt, Rivers State, Nigeria. Results showed that: a total of 48.6% respondents were currently sexually active; few (13.4%) have had sex in exchange for gifts; and 5.1% of them attested they have sex in exchange for gifts with a friend. The authors concluded based that involvement in unprotected casual sex was at the low ebb among undergraduates in their first year and high among undergraduates in higher levels.

Mturi and Gaearwe (2014) examined gender differences in sexual behaviour among students on a university campus. Result showed that students' year of study is a significant determinant of age at first sex and indulge in risky sexual activities. Oladipo (2014) investigated gender, religious affiliation, institution of learning and academic level as factors predicting sexual risk susceptibility among university undergraduates drawn from two universities in South-Western Nigeria. Result of analysis showed that level of study was a significant predictor of sexual risk susceptibility among undergraduates.

The influence of residential status on students' risky sexual behaviour has been investigated among higher education students by scholars in recent times. Desta and Regassa (2011) in a cross-sectional study investigated the level of awareness, knowledge and attitudes of young female students of Haramaya University (HU) on emergency contraception (EC) and risky sexual behaviours. The findings of the study revealed that 47.6% of the respondents had ever heard about EC; 25.7 % had good knowledge of EC, and 76.5% had favorable attitude toward EC. In the multivariate analysis, result among other findings showed that students' place of residence is a significantly predictor of attitude toward emergency contraception (EC) and risky sexual behaviour.

In an institutional survey, Musiime and Mugisha (2015) aimed at establishing the patterns of sexual behaviour and its associated factors among students of Uganda Martyrs University, Uganda. The study was a descriptive cross-sectional survey. Results showed that most students

were sexually active, had started having sex before joining university, had multiple sexual partners, were mainly not using condoms and were engaging in sex under the influence of alcohol. Consistent with authors' expectations, results showed that students living alone and cohabiting with the opposite in off-campus accommodations were more involved in risky sexual behaviours than students who are fulltime residents on campus. Adaramaja, Ademibi, Alabi, Adeola and Olanrewaju (2010), conducted research on influence of demographic factors on the lifestyle of students of tertiary institution in Kwara state. Findings from the study revealed that risky sexual behaviours were lower among students' residents on campus than their counterpart living in other off-campus apartments. They further found that low committal of risky sexual behaviours was as a result of life style on-campus which was governed by institutional rules and regulations while off-campus students live a free life after leaving the school premises.

METHOD OF STUDY

This study adopted the correlational research design. The population of this study consisted of all the 73,439 regular undergraduate students in universities in Edo State. The population of undergraduates in the institutions as at the 2016/2017 session included: 27388 in Ambrose Alli University (AAU) Ekpoma; 33,342 in University of Benin, Benin; 6,784 in Igbinedion University, Okada; 4205 in Benson Idahosa University, Benin city; 928 in Well-spring University, Benin City; 792 in Glorious Vision University (formerly Samuel Adeboyega University), Ogwa. This was based on the figure collected from the admission office of the respective universities.

A sample size of Two thousand nine hundred and thirty-eight (2938) undergraduate students representing 4% of the population was drawn from the universities covered in the study. The proportionate random sampling technique was used to draw a sample size of 4% per institution. The choice of proportionate random sampling technique for this study is supported by Leedy and Ormrod (2005) who contended that proportionate random sampling techniques is ideal when the researcher is interested in drawing a representative sample of objects or persons of fairly homogenous characteristics within a fairly distinct group. By using proportionate random sampling techniques to draw sample, the researcher hoped to be objective in selecting a representative sample that is approximately four percent among undergraduates from each of the target universities.

The scale titled: *Sexual Risk Survey (SRS)* developed by Turchik (2007) was adapted in the study. The scale was adapted and retitled: Risky Sexual behaviour Questionnaire (RISBEQ). The (RISBEQ) contains 21-items on students' involvement in risky sexual behaviour. *Sexual Risk Survey (SRS)* was adapted and integrated in this section. *Sexual Risk Survey (SRS)* is a scale

developed by Turchik (2007) in their work titled “identification of sexual risk behaviours among college students: A new measure of sexual risk”. The 24-item survey scale measure the frequency of sexual risk behaviours in the past six months. The scale covers a broad range of sexual behaviours namely: unprotected sex, impulsive sexual behaviours and sex with multiple sexual partners. These sub-scales formed the subscales of SRS with a reliability alpha (α) of 0.73, 0.42 and 0.76 respectively. Each item was scored 0-4 with a possible scale total range of 0-96. Participants were asked to indicate how many times a sexual behaviour has happened in the past two weeks/6 months and then the responses were recorded into 0-4 based on item analyses. The measure in SRS included a listing of definitions of terms used within the measure that may not be familiar to some participants. A calendar of the last six months plus some prompting questions to help participants remember their sexual experiences over this time period were also included to help enhance accurate recall.

In adapting the scale to fit the Nigerian context, five items under the first and last sub-scales - unprotected sex and sex with multiple sexual partners, were selected and slightly revised. The selection was based on items that were unambiguous and free from profanities such as “fucking” “sucking” that could sound offensive to respondents. The last dimension on “impulsive sexual behaviour” sub-scale was not covered for two reasons: Firstly, “impulsive sexual behaviour” had a low reliability index (α) of 0.42 in the original scale (SRS). Secondly, the items under the subscale (impulsive sexual behaviour) only explained intentions towards a sexual act as against actual committal of the act. For instance, items 4 and 5 on “impulsive sexual behavior” subscale reads “*How many times have you gone out to bars/parties/social events with the intent of engaging in sexual behaviour with someone?* How many times have you gone out to bars/parties/social events with the intent of “hooking up” and having sex with someone? Items in this subscale were also removed during adaption to avoid the inclusion of slangy terms such as “hooking up” that are quite ambiguous. These procedures were undertaken to localize the instrument in order to ensure the tense and use of language fit into the Nigerian culture.

Furthermore, the previous scale (SRS) only provided blank spaces for respondent to fill in cardinal terms of 1, 2, 3.....n, the number of times i.e the frequency of sexual risk behaviours in the past six months. This procedure in an assessment survey has been criticised by Sadeh and Baskin-Sommers (2016) who noted that relying on respondents for a self-report rating of their personal behaviour is an unreliable practice that could increase biases, sentiment and dishonesty in responses. Hence, they suggested ordinal rating of observed behaviour. Thus, to operationally rate the involvement in risky sexual behaviours, the 21-items raised under the three sub-scales was rated on a four-point scale of: Often -4, Sometimes - 3, Rarely - 2 and Never - 1 as suggested by Sadeh and Baskin-Sommers (2016) in their paper on validation of risky, impulsive

and self-destructive behaviour questionnaire (RISQ). Lastly, personal data relating to the demographic of the respondent was collected using personal data of respondents.

The face and content validity of the instrument (RISBEQ) was carried out by two experts in Guidance and Counselling. The cronbach reliability alpha technique was used to determine the reliability of the instrument. The reliability alphas (α) were: multiple sexual activities (items 1-7, $\alpha = .78$) and unprotected sexual activities (items 8-14, $\alpha = .71$). The overall cronbach alpha of the instrument for items 1 to 14 bothering on risky sexual behavior was 86. The researcher along with four trained research assistants administered the questionnaire to students. The Hypotheses were tested using the binary logistic regression. The binary logistics regression (often referred to as logistic regression) is a regression model that predicts the probability that an observation falls into one of two categories of a dichotomous dependent variable based on one or more independent variables that can be either categorical or continuous (O’Sullivan, Rassel & Berner, 2008). In this study, the dicotonomous dependent variable is “involvement in risky sexual behaviour -1” and “non- involvement in risky sexual behaviour -0”. The categorical independent variables include: sex, level of study, residential status, parents’ educational status, parents’ economic status and student religion while the continuous independent variable is age (measured in years). Therefore, the researcher sought to predict the probability of a case (a student getting involved in risky sexual behaviour) with respect to one or more categorical independent variables (such as sex) as well as the odds of involvement in risky sexual behaviour by a category of participant (say male undergraduates) over their counterparts (females). Using the binary logistic regression analysis, responses on “Often” and “Sometimes” were coded with 1 (representing involvement in risky sexual behaviour) while “Rarely” and “Never” were coded as 0 (representing non-involvement in risky sexual behaviour). All the hypotheses were tested at 0.05 level of significance.

RESULTS

Results in the two (2) hypotheses are presented below:

Hypothesis one: Personal factors (sex, age, level of study, and residential status) do not significantly predict unprotected sexual activities among university undergraduates in Edo State

Table 1: Binary Logistic Regression (BLR) on personal factors and unprotected sexual activities among university undergraduates in Edo State

-2 log likelihood = 3381.715 ^a Cox & Snell R-Square = .133 Nagelkerke R-Square = .177 Chi-square (X^2) = 177.017 Classified cases = 62.8%								
	β	S.E.	Wald	df	Sig.	Exp(β)	95% C.I. for EXP(β)	
							Lower	Upper
Sex(1)	-.127	.133	.914	1	.339	.880	.678	1.143
Age	.199	.030	44.721*	1	.000	1.220	1.151	1.294
Level.of.study			145.684*	4	.000			
Level.of.study(1)	-.541	.242	5.010*	1	.025	.582	.362	.935
Level.of.study(2)	.681	.180	14.273*	1	.000	1.977	1.388	2.815
Level.of.study(3)	-1.528	.358	18.225*	1	.000	.217	.108	.437
Level.of.study(4)	-.773	.401	3.709*	1	.054	.462	.210	1.014
Residential.status			162.437*	3	.000			
Residential.status(1)	2.879	.379	57.863*	1	.000	17.802	8.478	37.383
Residential.status(2)	.055	.185	.089	1	.766	1.057	.735	1.520
Residential.status(3)	2.696	.250	116.416*	1	.000	14.820	9.082	24.184
Constant	-5.003	.714	49.105*	1	.000	.007		

a. Variable(s) entered on step 1: Sex, Age, Level of study, Residential status.

b. Dependent variable: Unprotected sexual activities *Wald is significant ($p < 0.05$)

Data in Table 1 showed that the logistic regression model was statistically significant [$X^2 = 177.017, p < 0.05$]. The model explained 13.3% to 17.7% (Cox & Snell $R^2 = .133$ and Nagelkerke $R^2 = .177$) variance in unprotected sexual activities and correctly classified 62.8% of cases of undergraduate’s involvement in unprotected sexual activities. The Wald statistics for age (44.721), level of study (145.684) and residential status (162.437) are statistically significant ($p < 0.05$) while sex (.914) is not statistically significant ($p > 0.05$). Therefore, the null hypothesis was rejected. Specifically, the odds ratio [Exp(β)] predicted the probability or odds of an undergraduate indulging in risky sexual behaviour (unprotected sexual activities) based on a unit change in the socio-personal factors when other independent variables were kept momentarily constant. For sex, this indicated that the odd of involving in unprotected sexual activities was .880 times greater for males as opposed to females. For the estimate of age measured in years Exp(β)=1.220), a unit increase in age brought about 1.220 percent times increase in undergraduate students’ involvement in unprotected sexual activities. For level of study, the odds of involving in unprotected sexual activities was 1.977 times greater for two hundred level students than other study levels while for residential status, the odds of involving in unprotected

sexual activities was 17.802 times greater for undergraduates living on campus hostel accommodation than those living with other class of accommodation.

Hypothesis 2: Personal factors (sex, age, level of study, and residential status) do not significantly predict having multiple sexual partners among university undergraduates in Edo State.

Table 2: Binary Logistic Regression (BLR) on personal factors and multiple sexual partners among university undergraduates in Edo State

-2 log likelihood = 3248.892 ^a Cox & Snell R-Square = .102 Nagelkerke R-Square = .140 Chi-square (X ²) = 64.554 Classified cases = 66.0%								
	β	S.E.	Wald	df	Sig.	Exp(β)	95% C.I. for EXP(B)	
							Lower	Upper
Sex(1)	-.236	.132	3.214	1	.073	.790	.610	1.022
Age	.080	.029	7.814*	1	.005	1.083	1.024	1.146
Level.of.study			25.559*	4	.000			
Level.of.study(1)	-.194	.236	.674	1	.412	.824	.518	1.309
Level.of.study(2)	.097	.177	.299	1	.584	1.102	.779	1.559
Level.of.study(3)	1.676	.393	18.220*	1	.000	5.345	2.476	11.541
Level.of.study(4)	1.607	.444	13.121*	1	.000	4.989	2.091	11.904
Residential.status			72.476*	3	.000			
Residential.status(1)	-.063	.419	.022	1	.881	.939	.413	2.136
Residential.status(2)	.195	.184	1.124	1	.289	1.216	.847	1.745
Residential.status(3)	2.275	.275	68.552*	1	.000	9.726	5.676	16.664
Constant	-1.691	.678	6.217	1	.013	.184		

- a. Variable(s) entered on step 1: Sex, Age, Level.of study, Residential status.
- b. Dependent variable: Multiple sexual activities *Wald is significant (p<0.05)

Data in Table 2 shows that the logistic regression model was statistically significant [(X²) = 64.554, p<0.05]. The model explained 10.2% to 14.0% (Cox & Snell R²=.102 and Nagelkerke R²= .140) variance in having multiple sexual partners and correctly classified 66.0% of cases of undergraduate’s involvement in multiple sexual activities. The Wald statistics for age (7.814), level of study (25.559) and residential status (72.476) were statistically significant (p<0.05) while sex (3.214) was not statistically significant (p>0.05). Therefore, the null hypothesis was rejected. Specifically, the odds ratio [Exp (β)] predicted the probability of an undergraduate indulging in risky sexual behaviour (multiple sexual activities) based on a unit change in the socio-personal factors when other independent variables were kept momentarily constant. For sex, this indicated that the odd of involving in multiple sexual activities was.790 times greater

for males as opposed to females. For the estimate of age measured in years, a unit increase in age brought about 1.083 times increase in undergraduate students' involvement in multiple sexual activities. For level of study, the odds of involving in multiple sexual activities was 5.345 times greater for three hundred level students than other study levels while for residential status, the odds of involving in multiple sexual activities was 9.726 times greater for undergraduates living off campus with one or more persons in a rented apartment than those living in other class of accommodations.

DISCUSSION

The result from the study showed that sex as a personal factor predicted (risky sexual behaviour) among university undergraduates in Edo State. This result supports that of Abu and Akerele (2016) that gender predicted risky sexual behaviour among youths in Ibadan North Local Government Area of Oyo State, Nigeria. This indicates that the sex of undergraduates always varies with the males being more sexually active than the females. Females unlike males are more likely to delay intercourse until they are comfortable with when, where and with whom it occurs and because of the fear of potential consequences like STIs (including HIV infections) and unwanted pregnancies.

The result is also in line with that of Ochieng (2013) that there was a significant association between gender and involvement in risky sexual behaviour with the males being more sexually active than the females in secondary schools in Nairobi; Kenya. The result is consistent with that of Idoko, Muyiwa and Agoha (2015) that sexual behaviour of undergraduates of the University of Ibadan was attributed to gender. The result corroborates that of Shumba, Mapfumo and Chademaze (2011) that gender differences exist in students' involvement in unsafe sexual activities. The result is in line with that Musbau (2010) that gender differences exist in students' sexual behaviour. Still in agreement with result of Adebajo (2015) that more female respondents in the urban schools used condoms during the last vaginal sexual intercourse. The result agrees with that of Adam and Mutungi, (2007); Fischtein, Herold, and Desmarais (2007) that males were more involved in risky sexual behaviour than their female counterparts in schools.

The result agrees with that of Anyanwu, Goon and Tugli, (2013) that the use of condoms is low among both female and male students. The result is consistent with that of Menon, Mwaba, Thankian and Lwatula (2016) that male students were more likely to report having had more than one sexual partner. However, they were more consistent in condom use compared to female students. The result is in line with that of Oladipo (2013) that sex of student was a significant predictor of sexual risk susceptibility in South-Western Nigeria. The result agrees with that of Menon, Mwaba and Lwatula (2016) that male public students were more likely to report having

had more than one sexual partner than male private school students. This study confirms that sex predicts risky sexual behavior among university undergraduates. Perhaps, this is as a result of libidinal differences between male and female coupled with their inability to control their sex urge when they gain some level of independence within the university institution to study.

The result from the study showed that age as personal factor predicted (risky sexual behaviour) among university undergraduates in Edo State. This result is in line with that of Ahmadian, Hamsan, Abdulahi, Samah and Noor (2014) that age was a significant predictor of sexual intercourse among rural girls in Malaysia. This may be due to the fact that the ages of undergraduates tend to influence their involvement in risky sexual behaviours, for instance young adolescents of ages 16-17 was found to be involved in risky sexual behaviours in their quest to experiment with the opposite sex to express their sexual feelings because this is the period when many students (especially adolescents) experiment with various forms of indiscriminate sexual escapades.

The result agrees with that of Azuike and Iloghalu (2015) that involvement in risky sexual behaviour was more highly prevalent among senior secondary school students of higher age than those of lower age. The result confirms that of Envuladu, Agbo Ohize and Zoakah (2013) that age of respondents had a significant relationship with their practice of illicit sexual relationship among the opposite sex. Corroborating the findings of Asampong, Osafo and Ahiadeke (2013) which reported that adolescents' involvement in sexual was influenced by age of adolescent and their age at first sex but not by gender. The result is in line with that of Magu, Wanzala, Mutugi, Ndahi and Peter (2012) that age predict variability in condom use among young age groups.

This study has established that variations in risky sexual behaviour (unprotected sexual activities and multiple sexual activities) can be attributed to age differences among university undergraduates. This may be as a result of increase in risky sexual activities among the teeming population of young undergraduates who find it difficult to control themselves sexually without getting involved in risky sexual activities with their colleagues, friends, neighbours, roommates in order to enjoy acceptance and keeping with the social campus life”. This assertion is in line with position of Magu, Wanzala, Mutugi, Ndahi and Peter (2012) who noted that the generation of youths who get admitted into the universities today, are seemingly younger in age than what was obtainable few decades ago. His argument was that low exposure of many of these teenagers (below the age of 18 and 19 years who are still unable to make decision on their own); make them unacceptable to the social pressure to join significant others that have them into risky sexual practices.

The result from the study showed that level of study as a personal factor predicted (risky sexual

behaviour) among university undergraduates in Edo State. This agrees with the result of Edobor and Ekechukwu (2014) that level of study in terms of class differences was found to predict students' involvement in risky sexual behaviour. This is due to the fact that when fresh undergraduates such 100 and 200 level students get into campus they get involved in risky sexual behaviours due to influences from their peers before adjusting to the school's system as a result they get involved on arrival to campus before they can even settle down to make decisions on their own.

The earlier findings of Mturi and Gaeawe (2014) which was confirmed by this result also showed that students' year of study is a significant determinant of age at first sex and indulgence in risky sexual activities. The result further agrees with that of Oladipo (2014) who found in his study that level of study was a significant predictor of sexual risk susceptibility among undergraduates. However, the result disagrees with that of Imaledo, Opirite, Peter-Kio and Asuquo (2012) who concluded that involvement in unprotected casual sex was at the low ebb among undergraduates in their first year and high among undergraduates in higher levels in University of Port-Harcourt, Rivers State, Nigeria.

This study showed that risky sexual behaviour among undergraduates can be attributed to changes in their students' level of study. This outcome is perhaps as a result of new experiences, association and exposures that make it possible for young teenagers who have just completed their secondary school education to take on a new social life by imitating the behaviour of their well-adjusted colleagues in higher levels of study.

The result from the study showed that residential status as a personal factor predicted (risky sexual behaviour) sexual activities among university undergraduates in Edo State. The findings further indicated that students' place of residence is a significant predictor of attitude toward emergency contraception (EC) and risky sexual behavior because the environment and a persons' behavior are interlinked (Desta & Regassa 2011). The result disagrees with that of Adaramaja, Ademibi, Alabi, Adeola and Olanrewaju (2010) that risky sexual behaviours were lower among students' residents on campus than their counterpart living in other off-campus apartments. This study has shown that variations in risky sexual behaviour (unprotected sexual activities and multiple sexual activities) can be attributed to residential status of undergraduate students. This justified the popular saying that an environment influences man as a social being. Perhaps, this may be as a result of the social environment living condition of many students which permits or do not restrict them from entertaining the opposite sex as a guest in their homes or residence at specific periods of the day.

CONCLUSION

The incidence of risky sexual behaviour among undergraduate students in Edo State is raising a lot of concern among stakeholders in the university. Based on the result, it is concluded that personal variables including sex, age, level of study, and residential status predicted variations in unprotected sexual activities and the having of multiple sexual partners among undergraduate students in universities in Edo State.

RECOMMENDATIONS

Arising from results, the following recommendations were made:

1. Counsellors should recognize that risky sexual behaviour among undergraduate students is traceable to their parents' socio-economic status such as their income status and educational qualification among others. Hence, the provision of orientation and information services by counsellors is needful in promoting healthy sexual living among students from socio-economically disadvantaged homes in the state.
2. Agencies and organizations can assist government and institutions in creating awareness on the potential risk of indulging in risky sexual behaviour subject matter of this work.

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