



**KNOWLEDGE, ATTITUDE AND SIGNIFICANCE OF SEX EDUCATION AMONG  
STUDENTS OF THE UNIVERSITY OF NIGERIA SECONDARY SCHOOL, ENUGU  
CAMPUS, NIGERIA**

<sup>1</sup>Okafor Oluchi Kizito, <sup>2\*</sup>Ani Celestine Okafor, <sup>3</sup>Onah Emmanuel Sunday, <sup>4</sup>Ugwu Valentine Ifebuchekwu, <sup>5</sup>Chime Pascal Uwadiogwu, <sup>6</sup>Agbor Joseph Ikenna, <sup>7</sup>Uzoigwe Soky Okaibe, <sup>8</sup>Nwankwo Victor Ugochukwu, <sup>8</sup>Ejimi Nnamdi Ferdinand

<sup>1,8</sup>Department of Human Physiology, Faculty of Basic Medical Sciences, College of Medicine, University of Nigeria Enugu Campus, Nigeria.

<sup>2</sup>Dept of Human Physiology, <sup>4</sup>Anatomy, Faculty of Basic Medical Sciences, College of Medicine, State University of Medical and Applied Sciences, Igbo- Eno, Nsukka, Enugu State Nigeria.

<sup>3</sup>Department of Ophthalmology, David Umahi Federal University Teaching Hospital Uburu, Ebonyi State Nigeria.

<sup>5</sup>Department of Paediatrics, <sup>7</sup>Emergency Medicine, University of Nigeria, Teaching Hospital, Ituku-Ozalla, Enugu State Nigeria.

<sup>6,8</sup>Department of Human Physiology, Faculty of Basic Medical Sciences, College of Medicine, Enugu State University of Science and Technology, Enugu Nigeria.



**\*Corresponding Author: Dr. Ani Celestine Okafor**

Dept of Human Physiology, Faculty of Basic Medical Sciences, College of Medicine, State University of Medical and Applied Sciences, Igbo- Eno, Nsukka, Enugu State Nigeria.

Article Received on 17/06/2024

Article Revised on 07/07/2024

Article Accepted on 27/07/2024

**ABSTRACT**

Sex health is an essential part of adolescent development. Sex education is important to provide information on body development. Sexually transmitted diseases and its prevention. This study aimed at determining the knowledge, attitude and significance of sex education among secondary school students in University of Nigeria secondary school Enugu campus, Nigeria: This study was a cross sectional study which involved a total of 368 students of University of Nigeria secondary school Enugu campus that were issued a questionnaire between the age bracket 20-22 the largest percentage of respondents, 58.2% (214) are those within the age of 13-15 years. Majority were males and these constituted about 240 (67.9%). The classes had equal sizes of 184(50%) each. Majority, 363 (98.6%) were Igbo's and about 365 (99.2%) were Christians. Majority of respondents, 261(70.9%) had knowledge of sex education. Most of the respondents 163 (30.7%) agreed their source was from school. The rest 69.3% heard from other sources. On sex education, majority 24(145%) said it was all about teaching various topics on sex education. Many participants, 220 (59.8%) did not know the types of sex education. Only 148 (40.2%) agreed to knowing the types. On the types, majority 76(20.7%) agreed to comprehensive sex education types. Majority of participants, 235 had not attended sex education program in the past. Out of those who had attended, 64.7% had done so only once. Majority 267 (72.6%) agreed that sex education was not given much attention in secondary school. 329 (89.4%) agreed that sex education helps sexual behavior and decision making among adolescents. Majority, 295 (80.2%) agreed that it should be added to school curriculum. On parental role, 193(52.4%) agreed parents should be involved in sex education. Only 70 (19%) agreed sex education is not a waste of time. Majority, 300(81.5%) agreed that sex education can prevent unwanted pregnancy. 254 (69%) agreed that they feel comfortable discussing sex education with their parents and siblings. 304(82.6%) agreed it is an important aspect of one's life. Majority, 273 (74.2%) however agreed that it can lead to promiscuity in secondary school. 192 (53.2%) said sex education should not only be taught by parents. 222 (60.3%) agreed it can lead to sexual debut in early life. Majority, 223 (60.9%) says Nigerian educational system is not ready for sex education. 302(82.1%) said sex education is an important subject matter. Majority, 264(71.7) said they are comfortable being taught sex education in class. Generally, the level of knowledge among respondents was poor as only 140(38%) had good knowledge. On attitude and significance, 341 (92.7%) showed good attitude and significance. There is good attitude, but poor knowledge of sex education among secondary school students in University of Nigeria secondary school Enugu campus. Sex education is important especially to developing adolescents, so we recommend that families should teach their children sex education. Schools and other institutions of higher learning should focus on sex education and create more programs to further increase the level of sex education knowledge and government should create sex education friendly programs to educate adolescents.

**KEYWORDS:** Secondary School, Students, Sex Education, Knowledge, Attitude And Significance.

## INTRODUCTION

Sex education is the provision of knowledge about body development, sex, sexuality, and relationships, as well as skill development, to assist young people in communicating about sex and making educated decisions about their sexual health (WHO 2021). Young people while growing up face important decisions about relationships, sexuality, and sexual behavior. The decisions made can impact their health and well-being for the rest of their lives. Young people have the right to lead healthy lives, and society has the responsibility to prepare youth by providing them with comprehensive sexual health education that provides the tools needed to make healthy decisions (Advocates for Youth, 2023).

Due to the influence of religion, culture and norms of many African societies, most parents often find it difficult to teach adolescents about sex, thinking that such matters should not be discussed at home and that children do not need such information until when ready for marriage (Nakpodia, 2012). Most parents who rightly understand sex education as part of their responsibilities are reluctant to provide sex education because of their unfamiliarity with teaching methods or lack of adequate knowledge (Onoyase 2018, Asuquo et al., 2019). Most discussions about sex between parents and adolescents involve dictating do's and don'ts without a proper explanation of critical issues that bother on Adults proper understanding of adolescents sexual and reproductive challenges they encounter in their different developmental stages (Shin et al., 2019).

Sex education should be provided to students at different grade levels, with appropriate information, and putting into consideration different cultural backgrounds. It should include information about puberty and reproduction, abstinence, contraception, relationships, sexual violence prevention, body image, gender identity and sexual orientation. It should be taught by trained teachers and evidence based. Reliable information should be provided, such as, what works best to prevent unintended pregnancy and sexually transmitted infections. It should also respect young people's right to complete and honest information. Sex education should treat sexual development as a normal, natural part of human development (Advocates for Youth, 2023).

Comprehensive sexual health education covers a range of topics for students across different grade levels. Along with parental and community support, it can help young people avoid negative health consequences. Each year in the United States, about 750,000 teens become pregnant, with up to 82 percent of those pregnancies being unintended (Muhezi et al., 2015, CDC 2011). 73 Young people between the ages of 15 and 24 account for 25% of all new HIV infections in the United States and make up almost one-half of the over 19 million new STD infections recorded yearly in the United States (CDC, 2012). Sex education teaches young people the skills they need to protect themselves.

Maintaining a healthy relationship requires skills many young people are never taught - such as positive communication, conflict management, and negotiating decisions around sexual activity. A lack of these skills can lead to unhealthy and even violent relationships among youth. 1 in 10 high school students have experienced physical violence from a dating partner in the past year (CDC, 2013). Sex education should include understanding and identifying healthy and unhealthy relationship patterns; effective ways to communicate relationship needs and manage conflict; and strategies to avoid or end an unhealthy relationship (National sexual education standards, 2012).

Comprehensive sexual health education teaches not only the basics of puberty and development, but also instills in young people that they have the right to decide what behaviors they engage in and to say no to unwanted sexual activity. Furthermore, sex education helps young people to examine the forces that contribute to a positive or negative body image.

Good sex education teaches young people what constitutes sexual violence, that sexual violence is wrong, and how to find help if assaulted. Sex education does not mean instructing adolescents in sexual techniques or acts, rather it entails giving the necessary facts, information or knowledge about sex and encouraging questions and discussions (Nakpodia, 2012). Sex education helps in preparing adolescents to have responsible attitudes and behaviour towards sex. Its goal is to help students make wise, important, responsible and informed decisions by providing them with accurate, current and appropriate knowledge, with regard to their age, on human sexuality and the consequences of sexual activities. Sex education is also meant to help students develop moral consciousness, respect for themselves and for others. It also helps students practice abstinence before marriage which stands as the best protection against sexually transmitted diseases and unwanted pregnancies among adolescents (Obiunu, 2014).

Changes and development in adolescence make the adolescent students inquisitive as to know what is going on within and around them, therefore they seek for information from sources made available to them. This has become a societal problem when the information gotten are inadequate and inappropriate as to what they really need to know about sexuality, and this leads to the increase in incidences of inappropriate sexual behaviours, unplanned sex. Unwanted sex, unwanted pregnancies, unsafe abortion, sexual coercion, sexual violence and sexually transmitted diseases. (Alquai et al; 2012, Oyinloye 2014). There is therefore a need to assess the knowledge, attitude and significance of sex education among secondary school students in South Eastern Nigeria.

## METHODOLOGY

### 3.1.1 STUDY AREA

This study was carried out amongst adolescents in University of Nigeria secondary school Enugu campus, Enugu state. The school is located in Enugu Metropolis, which is in Enugu, the capital of Enugu State, located in South-eastern Geopolitical Zone of Nigeria. Enugu State is one of the 36 states in Nigeria located in the south eastern part. It was created in 1991 from a part of the old Anambra state. It has a total land area of 7,534sq.km. According to the 2006 Census; it has a population of 722,624. There are 17 Local Government Areas, 9 of which are urban. The principal cities in the state are Enugu, Ngwo, Agbani, Awgu and Nsukka. The state shares borders with Abia and Imo to the south and Ebonyi to the east, Anambra to the west. Benue and Kogi to northeast and northwest respectively. Enugu State is located at 6030 North of the Equator and 7030 East of the Latitude. Economically the state is predominantly rural and agrarian, with a substantial population engaged in farming. The major languages spoken are Igbo and English languages.

The University of Nigeria secondary school Enugu campus, comprises of Junior Secondary School Class one three (JSS class 1-3) and Senior Secondary School Class One-Three (SSS 1-3).

### 3.2. STUDY DESIGN

This is a cross sectional descriptive study on the Assessment of the Knowledge, attitudes and significance of sex education in adolescents in secondary schools in University of Nigeria secondary school Enugu campus.

### 3.3. STUDY POPULATION

This study was conducted in University of Nigeria secondary school Enugu campus.

#### 3.3.1 Inclusion Criteria

The inclusion criteria of the study are.

- Those who gave assent.
- Those who obtained consent from their parents.

#### 3.3.2 Exclusion Criteria

- Those Secondary School students unwilling to participate in the study.
- Those students that did not obtain consent from their parents.

### 3.4. SAMPLE SIZE DETERMINATION

The minimum sample size of this study was determined using:

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

Where N is Sample size

Z is 1.96 at 95% confidence interval

P is referenced prevalence thus 50% was used

$$P = 50/100 = 0.5$$

$$Q = 1 - P = 1 - 0.5 = 0.5$$

D is Maximum sampling error allowed at 5% or 0.05

Since my population is less than 10000, nf was calculated based on the formula

$$nf = n / 1 + (n/N)$$

Where;

nf = the desired sample size when the population is less than 10,000

n = the desired sample size when the population is more than 10,000

N = the estimate of population size which is 2500

Therefore,

The 10% was added to avoid the effect of attrition.

Adjusting for the non-response rate of 10% which is 33.405

Minimum size therefore 334.05 + 33.405 = 367.5

$$nf = 368$$

Desired sample size is 368 students.

### 3.5 SAMPLING TECHNIQUE

The sampling technique that was used for the study is multistage sampling.

The first stage consisted of choosing the University of Nigeria secondary school Enugu campus.

In the second stage, the classes of the school selected- JSS1-SSS3 were made into clusters based on the class numbers A-E.

In the third stage, students from each class selected were made into clusters using their identification numbers, from which students that would be given questionnaires were selected by simple random sampling, where participants from each stratum who meet the inclusion criteria will have an equal chance of participating in the study.

### 3.6 STUDY INSTRUMENT

A structured, interviewer administered questionnaire developed by researchers was used for data collection. The questionnaire was modified from an already existing one to elicit responses relevant to the study. The questionnaire consists of 4 sections, sections A-D.

Section A has 5 questions, Section B has 7 questions, Section C has 16 questions, Section D has 7 questions.

Section A: Socio-demographic data like age, sex, marital status, religion, year of study, ethnic group.

Section B: knowledge of sex education.

Section C: Attitude of secondary school adolescents towards sex education

Section D: significance of sex education.

### 3.7. DATA COLLECTION METHOD

The data was collected using self-administered questionnaire that was constructed in a simple way for all classes (JSS1-SSS3) to understand. Questionnaires was given to Class representatives and their assistants to help in distribution while we explained the purpose of the study to the students, The data was collected over the course of three days, as we visited the three schools to be studied.

### 3.8 PLAN FOR DATA MANAGEMENT

#### 3.8.1. Measurement of Variable

The Section B. which was directed at the knowledge of sex education, of which I was assigned for every positive responses and 0 for every negative responses. The values was converted to percentages and values greater than or equal to 20% was considered significant due to the sensitivity of the research. For section C, which showed attitude of secondary school adolescents towards sex education, positive responses were recorded as 1 while negative responses were recorded as 0, the percentage from each question was used to determine how the participants see sex education. Section D shows factors that enhance the significance of sex education of which 1

was scored to every positive response and 0 to every negative response.

#### 3.8.2 Statistical Analysis

Data was entered and analyzed in Statistical package for social sciences (SPSS) software version 26.0. This involved the use of summary statistics such as mean, frequency, and proportion was used to represent quantitative and qualitative data. Statistical tests such as Chi-square and t tests using 0.05 as the significance level were used to test any relationship between variables. The collected data were analyzed descriptively using frequencies, percentages, mean and standard deviation for answering research questions.

## RESULTS

**Table 1: Sociodemographic data of respondents.**

VARIABLES	FREQUENCY (n=368)	PERCENTAGE (%)
Age		
10-12	68	18.5
13-15	214	58.2
16-19	86	23.4
Gender		
Male	250	67.9
Female	118	32.1
Class		
JSS1-3	184	50
SSS1-3	184	50
Religion		
Christianity	365	99.2
Others	3	0.8
Ethnicity		
Igbo	363	98.6
Hausa	1	0.3

The table above shows that the largest percentage of respondents, 58.2% (214) are those within the age of 13-15 years. Majority are males and these constitute about

240(67.9%). The classes have equal sizes of 184(50%) each. Majority, 363(98.6%) are Igbo's and about 365(99.2%) are Christians.

**Table 2: Shows Knowledge of Sex Education Amongst Respondents.**

VARIABLES	FREQUENCIES (n=368)	PERCENTAGE (%)
Knowledge of Sex Education		
Have sex education knowledge	261	70.9
Don't have sex education Knowledge	107	29.1
Source of knowledge		
Television	66	17.9
Radio	17	4.6
Social media	46	12.5
Family and Friends	59	16
School	11.3	30.7
Others	4	1.1

The above table shows that majority of respondents, 261(70.9%) have knowledge of sex education. Most of the respondents 163(30.7%) agreed their source was from school. The rest (69.3%) heard from other sources.

**Table 2b: Shows Knowledge of Sex Education Amongst Respondents.**

VARIABLES	FREQUENCY(n=368)	PERCENTAGE (%)
<b>Definition of Sex</b>		
Topics on sex and sexuality	274	74.5
Teaching How to Have Sex	98	26.6
Discovering one sexuality	121	32.9
No of Sexual Education Idea	27	7.3
<b>Knowledge of sex education Types</b>		
Have Knowledge of sex education types	148	40.2
Don't Have Knowledge of sex education types	220	59.8

On sex education, majority 24(145%) says it is all about teaching various topics on sex education. Many participants, 220(59.8%) do not know the types of sex

education. Only 148(40.2%) agreed to knowing the types.

**Table 2c: Shows Knowledge of Sex Education Amongst Respondents.**

VARIABLES	FREQUENCY(N=368)	PERCENTAGE (%)
<b>Types Of Sex Education Known</b>		
Abstinence only sex Education	20	5.4
Comprehensive sex Education	76	20.7
Abstinence Plus Dual Protection	44	12
Refusal skill sex education	42	11.4
Contraception sex	23	6.3
<b>Attended Program On Sex Education</b>		
Those who have attended the program	133	36.1
Those that have not attended the program	235	63.9

On the types of sex education, majority 76(20.7%) agreed to knowing comprehensive sex education types.

Majority of participants, 235 have not attended a sex education program before.

**Table 2d: Shows Knowledge of Sex Education Amongst Respondents.**

VARIABLES	FREQUENCY(n=368)	PERCENTAGE (%)
<b>Number of times I attended Sex education program</b>		
Weekly	238	64.7
Monthly	61	16.6
Every six months	10	2.7
yearly	33	9.0

64.7% of those who have attended sex education programs have done so once weekly.

**Table 3: Shows the attitude of respondents towards Sex Education.**

VARIABLES	FREQUENCY(n=368)	PERCENTAGE (%)
Variable	Agree/strongly agree	Disagree/strongly disagree
Sex Education Not Given Much Attention In Secondary school	267	101
Sex Education Help Sexual Behaviour and Decision Among adolescents	329	38
Sex Education should be added to secondary school Curriculum.	295	72
Sex education should not involve parents	193	175

The above shows that majority 267(72.6%) agreed that sex education is not given much attention in secondary school. 329 (89.4%) agreed that sex education helps sexual behaviour and decision making among

adolescents. Majority, 295 (80.2%) agreed that it should be added to school curriculum. On parental role, 193(52.4%) agreed parents should be involved in sex education.

**Table 3b: Shows the attitude of respondents towards Sex Education.**

VARIABLES	FREQUENCY(n=368)	PERCENTAGE (%)
Sex Education is not a waste of time	298	70
Sex Education in secondary school will prevent unwanted pregnancy	300	67
Sex Education to be discussed with parents siblings	254	114
Sex Education is an Important aspect of life.	304	64

Only 70(19%) agreed sex education is not a waste of time. Majority, 300(81.5%) agreed that sex education can prevent unwanted pregnancy. 254(69%) agreed that

they feel comfortable discussing sex education with their parents and siblings. 304(82.6%) agreed it is an important aspect of one's life.

**Table 3c: Shows the attitude of respondents towards Sex Education.**

Variables	Agree/strongly agree	Disagree/strongly disagree
Sex Education in secondary school can lead to promiscuity among adolescents	273	95
Sex Education in secondary school is immoral	204	164
Sex Education should Only be taught at Home by parents	192	114

Majority, 273(74.2%) however agreed that it can lead to promiscuity in secondary school. 192(53.2%) says sex education should not only be taught by parents.

**Table 3d: Shows the attitude of respondents towards Sex Education.**

Variables	Agree/strongly agree	Disagree/strongly disagree
Sex Education in secondary School can lead to promiscuity among early sexual debut	222	146
Nigeria's educational System is not ready for sex education	223	145
Sex Education is an important subject matter	302	66
Comfortable been taught Sex education in class	264	104

222(60.3%) agreed it can lead to early sexual debut in early life. Majority, 223(60.9%) says Nigerian educational system is not ready for sex education.

302(82.1%) says sex education is an important subject matter. Majority, 364(71.7%) says they are comfortable been taught sex education in class.

**Table 4: Shows the significance of respondents towards Sex Education.**

Variables	Agree/strongly agree	Disagree/strongly disagree	Neutral
Sex Education Advocacy in Secondary school	295	73	0
Sex education Implementation to reduce STDs among adolescents in secondary schools	326	42	0
Sex Education should added to Sunday schools by churches for Adolescents.	281	87	0

The above shows that 80.2% agreed to sex education advocacy in secondary school. 326(88%) agreed that sex education reduces STDs among adolescents in secondary

school. 281(96.4%) agreed that churches should add sex education to Sunday school classes.

**Table 4b: Shows the significance of respondents towards Sex Education.**

Variables	Agree/strongly agree	Disagree/strongly disagree	Neutral
Practicing sex education will reduce promiscuity among adolescents	310	73	0
I will lead a group against sex education if implemented	236	132	0
Sex Education Knowledge has Affected me	212	156	0
Sex education has Affected me positively	52	153	

212(51.6%) agreed that sex education have affected them. Out of these, 153 (41.6%) of respondents agreed it has affected them positively.

**Table 5: Shows the general levels of knowledge, attitude and significance of respondents towards Sex Education.**

VARIABLES	FREQUENCY(n=368)	PERCENTAGE (%)
Poor knowledge	228	62.0
Good knowledge	140	38.0
Poor attitude	27	7.3
Good attitude	341	92.7
Bad significance	27	7.3
Good significance	341	92.7

The table shows that the level of knowledge among respondents is poor as only 140(38%) had good

knowledge. On attitude and significance, 341 (92.7%) showed good attitude and significance.

**Table 6: shows the relationship between the sociodemographic data of respondents and the level of knowledge of sex education.**

variables	Poor Knowledge(228)	Good Knowledge(140)	Chi-square	P-value
<b>Class</b>				
JSS1-3	109(59.2%)	75(40.8%)		
SSS1-3	119(64.7%)	65(35.3%)	1.153 <sup>a</sup>	0.167
<b>Gender</b>				
Male	146(58.4%)	104(41.6%)		
Female	82(69.5%)	36(30.5%)	4.184 <sup>a</sup>	0.026
<b>Age</b>				
10-12	36(52.9%)	32(47.1%)		
13-15	138(64.5%)	76(35.5%)		
16-19	54(62.8%)	32.7(37.2%)	2.951 <sup>a</sup>	0.229
<b>Religion</b>				
Christianity	227(62.2%)	138(37.8%)		
others	1(33.3%)	2(66.7%)	1.051 <sup>a</sup>	0.324
<b>Ethnicity</b>				
Igbo	224(61.7%)	139(38.3%)		
Hausa	0(0.0%)	1(100%)		
Others	4(100%)	0(0%)	4.094 <sup>a</sup>	0.129

The table shows the Chi-square distribution between the socio demographic data of respondents and level of knowledge. It shows that 75 (40.8%) of those in JSS1-3,

104 (41.6%) of male respondents, 32(47.1%) of those between 10-12 years. 138(37.8%) of Christians and 139(38.3%) all had good knowledge of sex education.

**Table 6b:** shows the relationship between the sociodemographic data of respondents and the level of significance of sex education.

variables	Poor Knowledge(228)	Good Knowledge(140)	Chi-square	P-value
<b>Class</b>				
JSS1-3	15(8.2%)	169(91.8%)		
SSS1-3	12(6.5%)	173(95.5%)	.360 <sup>a</sup>	0.345
<b>Gender</b>				
Male	17(6.8%)	233(93.2%)		
Female	10(8.5%)	108(91.5%)	.331 <sup>a</sup>	0.352
<b>Age</b>				
10-12	9(13.2%)	59(86.8%)		
13-15	10(4.7%)	204(95.3%)		
16-19	8(9.3%)	78(90.7%)	6.202 <sup>a</sup>	0.045
<b>Religion</b>				
Christianity	227(7.3%)	338(92.6%)		
others	0(0.0%)	3(100%)	.239 <sup>a</sup>	0.795
<b>Ethnicity</b>				
Igbo	26(61.7%)	337(92.8%)		
Hausa	0(0.0%)	1(100%)		
Others	1(25%)	0(0%)	1.931 <sup>a</sup>	0.381

The above table reveals sex education significance among respondents.

173(93.5%) of those in SSS1-3, 233(93.2%) males, 204(95.3%) of those between ages 13-15, 338(92.6%) Christians and 337 (92.3%). Igbo showed good knowledge of sex education significance.

## DISCUSSION AND CONCLUSION

### 5.1 DISCUSSION

Available results from previous studies and current findings in this research reveal the need for sex education among adolescents.

From this study, we found that our respondents have a poor knowledge level of 62% as compared to previous findings. Only 38% had good or positive knowledge of sex education. A 2006 journal revealed that adolescents in Nigeria had poor level of knowledge of reproductive health issues though, no percentage level was given. In 2020, a cross sectional level study in Tudun Wada, Abuja revealed a positive knowledge with majority of respondents having a mean score of 3.7. This could be as a result of increasing urbanization in Abuja compared to Enugu.

Another study done in Benin City, Nigeria revealed a 6.98% low knowledge level as compared to 62% level low knowledge indicated in this study. 74.165 in that study had moderate knowledge while only 18.865 had good knowledge levels among respondents. The above findings showed a decline in the last few years. This indicates that less effort or no serious commitments have been put into this. Although, this study, showing good knowledge levels of 38% indicates an increase in the level of knowledge, the level still remains below 50%

showing that not much has been done to improve on sex education knowledge among adolescents.

Findings on attitude reveal that a 65% positive attitude was found among respondents in the previous studies done in 2020, in Tudun Wada, Abuja, despite lack of appropriate knowledge levels (42%). This study revealed a 92.7% level of good or positive attitude. This shows great improvements in the attitude of adolescents over the years. This shows that although the knowledge level is poor, the respondents in this study have showed good attitude towards sex education. This gives a renewed hope for better outcomes in the future. The about 25% difference might be explained by the two (2) year time difference between this study and that done in Abuja. Another study undertaken in secondary schools in Enugu in 2019 showed that 98.2% of the sexually active students practiced high risk sexual behavior. This varied from our results possibly because of the time in which the study was done. There was a lower level of awareness of the negative impacts associated with promiscuity four (4) years ago compared to present day, because of the easier accessibility of social media platforms and the continued efforts of advocates.

Despite Nigeria being among the countries to have adopted the United Nations law on sex education, the level of knowledge is still not satisfactory. High burden of unwanted pregnancies still remains a problem. Sex education still lags behind in terms of priority funding and committed implementation.

### 5.2 CONCLUSION

I can conclude from the results and findings in this study that sex education knowledge still remains the greatest challenge amongst adolescents as revealed by the 38%

level of knowledge seen. Though many have heard about sex education, they have inadequate knowledge about it.

In addition to this, there is good attitude, shown by the 97.2% to being taught sex education in schools. This is promising as it would undoubtedly contribute to the success in implementation of CSE laws and policies into Nigerian schools.

Finally, this study equally showed a 97.2% value in the assessment of the level of significance of sex education in the respondents. This is important as it shows that the students consider sex education important and are willing to imbibe the knowledge when taught appropriately. 1. Schools and other institutions of higher learning should pay more attention to sex education and create more programs to further increase the level of sex education knowledge: Given the low level of knowledge of sex education among the study population, there is a need for targeted sex education, as well as seamless incorporation of sex education into the curriculum, Legislations can be made by government on sex education: This could include policies that are in line with CSE with vigorous implementation in schools and institutions of learning to improve the awareness, Religious and non-governmental organizations can help in the campaign on sex education to create more awareness and increase knowledge level. Youth programs and organizations like girl's guide are advised to make comprehensive sex education a part of their curriculum so as to improve all round awareness. Parents and guardians are advised to give their children age appropriate knowledge on sex education: Family is the most basic unit of society, it is important that members of the family aid in teaching younger children what they need to know about sex, sexuality, body development and the like. Further research should be done on the level of knowledge of sex education especially adolescents: This is needed to better understand the source of knowledge, barriers and facilitators to comprehensive sex education. This can help to inform the development of more effective interventions and strategies.

## 5. ACKNOWLEDGEMENT

We thank God for his grace, providence and sustenance throughout the course of this project. Our sincere appreciation goes to our amiable project supervisor, Dr. Ani Okafor Celestine and his team for taking out time to ensure that this project met all the required standards. I am indeed grateful to the lecturers of the Department of Human Physiology, University of Nigeria especially Mr. M. L. Nweke who is the current Head of Department. And to parents/sponsors and families for their encouragement and support and finally to our respondents for their patience and cooperation while answering our questionnaire. Finally, we thank all our friends who have in one way or another contributed to the success of this research work.

May the good Lord keep us all.

## 6. Conflicts of Interest

The authors declare that they have no conflicts of interest.

## REFERENCES

1. Abogunrin A (2003). Sexual behaviour, condom use and attitude towards HIV/AIDS among adolescents in Nigeria. University of Ilorin; An Unpublished Ph.D thesis.
2. Ajibade BL, Olagunju RO, Oyediran G (2013). Knowledge and Opinion toward Sex Education among Selected Secondary Schools in Ejigbo Local Government Area, Osun State, Nigeria. *Journal of Nursing and Health Science*, 2(1).
3. Alquaiz MA, Minhas HR (2012). Knowledge, attitudes, and resources of sex education among female adolescents in public and private schools in Central Saudi Arabia. *Saudi Med*, 1; 33(9): 1001-1009.
4. Asuquo EO, Imaledo JO, Ayalogu PA, Ibe CC, Okojie EI (2019). Attitude, practice, and perception of sexuality education among parents in Obio-Akpor local government area of Rivers State, Nigeria. *Afr J Biomed Res Afr J Biomed Res*, 22(1): 51-58.
5. Ayangade SO (1984). Contraceptives knowledge and practice among induced abortion patients. *Studies*, 3: 419.
6. Balarabe AS (2022). The Legal Status and Significances of Sexual Rights Among Some Selected Stakeholders in Nigeria. *Sexuality & Culture*, 26(3): 1090-1114.
7. Bridges E, Hauser D (2014). Sexuality education: Building an evidence-and rights-based approach to healthy decision-making. Washington.
8. Centre for Disease Control (CDC) (2011). Youth Risk Behavior Surveillance. Atlanta: US Department of Health and Human Services. *Centers for Disease Control and Prevention*, 202; 38(2): 90-06.
9. Centres for Disease Control and Prevention (2012). Sexually Transmitted Disease Surveillance 2011. Atlanta: US Department of Health and Human Services.
10. Centres for Disease Control and Prevention (2013). Sexually Transmitted Disease Surveillance. Atlanta US Department of Health and Human Services.
11. Dorle AS, Hiramath ID, Mannapur BS, Ghattargi CH. Puberty changes in secondary school children of Bagalkot, Karnataka.
12. Duru CB, Ubajaka CC (2010). Sexual behaviour and practices among secondary school adolescents in Anumbra State, Nigeria. *Afrimedical Journal*, 1(2): 22-27.
13. Esere M (2006). HIV/AIDS awareness of in-school adolescents in Nigeria: Implications for adolescence sexuality. *Journal of Psychology in Africa*, 2(16): 255-2589.
14. Ekeng EB, Odey GA, Undiyaundeye FA (2022). Students' attitude towards sex education among senior secondary schools in Bekwarra local government area of Cross Rivers State, Nigeria.

15. Ezimokhia (2000-2001). Special program of research development and research in human manual report, Vol 4.
16. Iyoke CA, Onah HE, Onwasigwe CN (2006). Teachers' Attitude is Not an Impediment to Adolescent Sexuality Education in Enugu, Nigeria.
17. *Journal of Clinical and Diagnostic Research*, 2010; 4: 3016-19.
18. Koyama A, Corliss HL, Santelli JS (2009). Global lessons on healthy adolescent sexual development. *Current Opinion in Paediatrics*, 21: 444-449.
19. Mangai SA (2020). Assessment of Knowledge and Benefits of Sex Education among Adolescents of Government Secondary School Tudun Wada, Jos North Local Government Area, Plateau State.
20. Muhwezi WW, Katahoire AR, Banura CC, Mugooda HH (2015). Perceptions and experiences of adolescents, parents and school administrators regarding adolescent-parent communication on sexual and reproductive health issues in urban and rural Uganda. *Reprod Health*, 12(1): 110.
21. Musax JJ (2020). Education in Nigeria: attitude of secondary school adolescents and the role of parents and stakeholders. *Open Journal of Educational Development*, 1(1): 1-30.
22. Nakpodia ED (2012). The relevance of sex education in secondary school curricula in Abraka Metropolis, Delta State, Nigeria. *Scholarly J Bus Admin*, 2(2): 36-41.
23. National Sexual Education Standards: Core Content and Skills, K-12 (2012). A Special Publication of the *Journal of School Health*, 6-9.
24. Obiunu JJ (2014). The influence of sexuality education on inappropriate sexual behaviors among secondary school students. *Adv-Res*, 2(12): 369-878.
25. Obuoha ES (2015). Sexual behaviour and sex practices among secondary school students in Enugu. *Journal of Child and Adolescent Behavior*.
26. Onoyase AO (2018). Teachers' attitude towards teaching of sexuality education in federal government colleges in Nigeria-implications for counselling. *High Educ Stud*, 8(4): 162-167.
27. Osalusi FO (2021). Knowledge of secondary school students on sex education in southwest Nigeria.
28. Oyinloye OA (2014). Sexual education for wholesome sexual behaviour among in-School Nigerian Adolescents. *Int J Cross-Discip Subj Educ Spec Issue*, 4: 1.
29. Randhir K, Aminol G, Sachin SK (2017). Knowledge, Attitude and significance of Sex Education among School-going adolescents, Vol 1.
30. Rubin AC, Kendall GT (2001). What skills should sex education develop?
31. Shin HO, Lee JM, Min JY (2019). Sexual knowledge, sexual attitudes, and perceptions and actualities of sex education among elementary school parents. *Child Health Nurses*, 25(3): 312-323.
32. Syrah IK (2017). Knowledge, Attitude and significance of Sex Education among School-going Adolescents in Ambala District, Haryana, India.
33. Tupper GK, Kenneth FY (2013). Sex, Drugs and the Honour Roll: The Perennial Challenges of Addressing Moral Purity Issues in Schools. *Critical Public Health*, 24(2): 115-131.
34. United Nations Educational Scientific and Cultural Organisation (UNESCO) (2012). Challenges and opportunities of scaling up.
35. United Nations and Population Fund (UNFPA) (2018). International, technical guidance on sexuality education: An evidence-informed approach.
36. Wekesa FM, Nyakangi V, Onguss M, et al. (2019). Comprehensive sexuality education in sub-Saharan Africa.
37. World Health Organization (WHO) (2012). Social determinants of health and well-being among young people. *Health Behaviour in School-aged Children (HBSC) Study*.
38. World Health Organization (WHO) (2011). Sexual and reproductive health of younger adolescents: research issues in developing countries: Background paper for a consultation. Geneva, Switzerland.
39. World Health Organization (2021). World Health Organization curriculum matrix for comprehensive entity education, Vol 4.
40. World Health Organization (2021). World Health Organization curriculum matrix for comprehensive sexuality education, Vol 4.
41. Ybarra ML, Mitchell KJ (2013). Prevalence Rates of Male and Female Sexual Violence Perpetrators in a National Sample of Adolescents. *JAMA Pediatrics*.