

**ORIGINAL ARTICLE****Parental Verbal Communication and Sexual Knowledge of Senior Secondary School Students in South East, Nigeria**CJ Orji<sup>1,2\*</sup>, SU Arinze-Onyia<sup>1,2</sup>, CN. Obionu<sup>3</sup>**OPEN ACCESS**

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**ABSTRACT**

**BACKGROUND:** Parental verbal communication may influence the sexual knowledge of senior secondary school students in Enugu State, Nigeria.

**METHODS:** This study utilized a school based cross-sectional study design and was conducted across the six education zones of Enugu State using three-stage sampling technique. A total of 400 respondents completed the interviewer administered questionnaires on their socio-demographics, sexual knowledge and parents' information on verbal communication skills. Obtainable knowledge scores for sexuality ranged between 0-10; scores of 1-5 were classified as poor and 6-10 as good. Data analysis for the quantitative data was done using IBM SPSS; version 22. Chi square test of statistical significance and multivariate analysis using binary logistic regression were used in the analysis, and the level of significance was set at a *p* value of less than 0.05.

**RESULTS:** Out of the 400 respondents, 55.5% were girls. The mean age (SD) of the respondents was 15.9 ± 1.3 years. Although 15.5% and 8.8% of the respondents were very comfortable discussing sexually related matters with their mothers and fathers only 34.8% and 16.0% of mothers and fathers were comfortable discussing such matters with the respondents. Less than half of the respondents (42.5%) had good sexual knowledge. Verbal sexual communication between parents and respondents and age above 16 years were found to be predictors of good sexual knowledge.

**CONCLUSIONS:** Poor parental verbal communication led to the poor knowledge of sexuality among the respondents. Parents should be encouraged to discuss sexuality matters with their children.

**KEYWORDS:** Parents, Verbal communication, Sexual Knowledge, Students, Nigeria

**INTRODUCTION**

In 1994, at Cairo, the International Conference on Population and Development (ICPD) with one hundred and seventy-nine governments in attendance endorsed a ground breaking programme of action which recognized the important role of young people in development (1). Eighteen years later in New York, it passed a

resolution which recognized the rights, duties and responsibilities of parents and other persons legally responsible for adolescents to provide appropriate direction and guidance on sexual and reproductive health matters in a manner consistent with the evolving capacities of the adolescents (2).

Worldwide, there are an estimated 1.8 billion young people making up a fourth of the entire human population of 7.3 billion. Nine out of every ten young person live in the developing countries (1). Nigeria being the most populous black nation on earth and the sixth most populous in the world boasts of an estimated population of 177.5 million (3). According to the population and housing census carried out in 2006, young people aged 10 – 24 years constitute 31.7% of the total population of the country with nearly equal proportions of males and females (50.1% males and 49.9% females) (4).

Young people worldwide are faced with sexual and reproductive health issues. Various stakeholders tend to withhold sexuality information from young people mainly as a result of negative traditional and socio-cultural beliefs (5). Studies in Nigeria have shown that there is a general tendency for parents and other adults to be secretive about sensitive developmental issues such as sexual and reproductive health issues (6). Poor access to reliable, adequate and valid information about sexuality, and its dimensions are a norm in all regions of Nigeria and Enugu State is not left out. Most parents still fear that providing sex education to their young people will encourage them to try out sex and may increase risky sexual behavior (7).

The National HIV/AIDS Reproductive Health Plus Survey of 2012 (NARHS) generally showed low level of health communication on reproductive health issues among the Nigerian population (8). The finding that only 17% of young persons (15-19 years) were comfortable to discuss sexual matters with their mothers and 10% with their fathers has a significant implication for the acquisition of correct information on sexuality and related issues by young people (8). The Nigeria Demographic and Health Survey of 2013 revealed that 31% of adults had discussed sexually transmitted infections (STI) and family planning

(7%) with their male wards. In the same vein, 35% of adults had discussed STI and 8% had discussed family planning with their female wards (9).

This study aimed to establish a relationship between parental verbal communication and knowledge of sexuality among senior secondary school students in Southeast, Nigeria.

## METHODS

This was a school based descriptive cross-sectional study carried out in Enugu State, Southeast Nigeria between September and October 2016. Co-educational schools were used to improve representativeness of the study population.

**Inclusion criteria:** The study population were senior secondary school students between the ages of 12 and 20 years from co-educational schools in Enugu State.

**Exclusion criteria:** Married students and students who did not wish to participate were excluded from the study.

**The sampling technique:** The study area had 314 public secondary schools and 210 private secondary schools (10). There were 486 co-educational secondary schools in all. For the operations of the Ministry of Education, the state is divided into six zones; namely, Agbani, Awgu, Enugu, Nsukka, Obollo-afor and Udi. A minimum sample size of 290 was determined using the fisher's formula. Using a correction factor of 20% for non-response rate increased the sample size to 363. Finally, 400 respondents were included in the study.

A three stage sampling technique was used:

**Stage 1:** Simple random sampling technique through balloting was used to select one local government area from each of the six education zones in Enugu State.

**Stage 2:** Simple random sampling by balloting was used to select 10 co-educational schools from the forty-three co-educational schools in the six LGAs respectively. Proportional allocation in the ratios of 1:1:1:1:2:4 was used to select 1 school each from Enugu-East, Nkanu-West, Udenue, and Oji-River LGA, 2 schools from Nsukka LGA and 4 schools from Udi LGA.

**Stage 3:** Systematic sampling technique was then applied to select the students. Equal allocation was used to select 40 students from each school. Selection of students was done at the assembly grounds using the total number of senior secondary school students present on the day of data collection as the sampling frame. The sampling interval was determined by dividing the sampling frame in each school by the sample size of 40. Thus, every  $n^{\text{th}}$  student was recruited for the study. The index student was selected by simple random sampling technique through balloting. This was done for all the selected schools.

**The study instruments:** A pre-tested semi-structured interviewer-administered questionnaire was used for quantitative data collection in this survey. This instrument was adapted from the World Health Organization questionnaire template for assessing the sexual and reproductive health status of young people globally.(11) The questionnaire contained 3 sections: Section 1 obtained information on the socio-demographic characteristics of the students and their parents. Section 2 was used to collect data on sexual knowledge of the respondents and section 3 helped to gather data on parental verbal factors from the respondents. The World Health Organization Questionnaire was adopted for this study to assess the sexual knowledge of the adolescents. Parental verbal communication and sexual knowledge of the respondents were assessed using seven and five variables respectively. A correct response to each knowledge variable was determined by the respondent's ability to answer the question. Each correct response was scored one mark and a non-response or wrong response was scored a zero mark. These scores were added up to give a total knowledge sum for each respondent. A sum score of fifty percent and above was used as a cut-off for knowledge. While scores above 50% were graded as good verbal communication and sexual knowledge, scores below 50% were graded as poor parental verbal communication and sexual knowledge.

**Ethical permit:** Ethical permission was obtained from the Ethics Committee of the Enugu State University Teaching Hospital, Parklane Enugu, while informed consent was obtained from the students with approval from the Enugu State Ministry of Education.

**Data collection:** The senior secondary school students' in these schools were invited to be part of the study. Pre-tested interviewer-administered questionnaire was used to collect data from respondents. Contents of the questionnaire included demographical variables, sexual knowledge and parental verbal sexual communication.

**Statistical Analysis:** Data collection and editing of questionnaires was done manually by the investigator to detect omissions and ensure uniform coding. Uncompleted questionnaires were discarded. The analysis was done using IBM SPSS Statistical Package version 22. Descriptive statistical analysis (frequencies and percentages) were used for categorical variables. While sociodemographic factors and parental verbal communication were the independent variables, sexual knowledge was the dependent variable in this study. Chi square test of significance and multivariate analysis using binary logistic regression were used to determine the relationship between parental verbal and sociodemographic factors and sexual knowledge of the respondents in the analysis. The level of statistical significance was determined by a p value of less than 0.05.

## RESULTS

Table 1 shows the socio-demographic characteristics of the respondents. The majority were females (55.5%), not in a relationship (68.5%), and within the 15-19 years (86.8%) age category. Their mean age and standard deviation was  $15.9 \pm 1.3$  years. Over half of the respondents (54.3%) had an average school performance which was determined by using teachers' result sheets for the previous two terms, and a greater proportion (76.8%) were living with both parents.

Table 1: Socio-demographic characteristics of respondents

Variable	Frequency (n =400)	Percent (%)
<b>Age of respondents in years</b>		
12-14	48	12.0
15-19	347	86.8
20-24	5	1.2
Mean $\pm$ SD (years)	15.9years $\pm$ 1.3	
<b>Sex</b>		
Female	222	55.5
Male	178	44.5
<b>Class *</b>		
SS 1	166	41.5
SS2	126	31.5
SS3	108	27.0
<b>Academic performance (last two term results from teacher)</b>		
Above average	167	41.7
Average	217	54.3
Below average	16	4.0
<b>Respondent lives with</b>		
Both parents	307	76.8
One parent	63	15.8
Relatives	30	7.4
<b>Current relationship status of respondent</b>		
Not in any relationship	274	68.5
In a relationship	146	31.5
<b>Importance of religion to respondent</b>		
Very important	346	86.5
Important	50	12.5
Not important	4	1.0

\*SS 1,2,3 means Senior Secondary 1,2 3

Table 2 depicts the knowledge of contraception and fertility among the respondents. Even though 280 respondents (70.0%) had never heard of contraception, 66% reportedly had seen a condom. Less than a third of the respondents (30%) agreed that condom was the most suitable method of preventing pregnancy. Only 45.5% of the respondents knew that a girl could get pregnant if she engaged in sexual intercourse midway between her menstrual periods. However, a similar proportion reported that a girl could still get pregnant while on contraceptive pills (37.8%) or if her partner used the withdrawal method (33.8%).

Table 3 shows that over 90% of the respondents had heard of STI, only 29.2% knew that condom was an effective way of preventing STIs. However, 62.0% knew that painful micturition and swelling/boil at the genitalia (48.5%) were known symptoms of STI. Having unprotected sex (88.3%) was noted as the commonest way of contracting STIs. HIV/AIDS (56.3%), and gonorrhoea (50.0%) were the most commonly reported STIs noted by the respondents. Less than half of the respondents (42.5%) were found to have good sexual knowledge.

Table 2: Knowledge of contraception and fertility of the respondents

Variable	Frequency (n=400)	Percent (%)
<b>Ever heard of contraception</b>		
Yes	120	30.0
No	280	70.0
<b>Ever seen a condom</b>		
Yes	264	66.0
No	136	34.0
<b>Known contraceptive methods**</b>		
The pill	109	27.3
Safe period	104	26.0
Withdrawal method	92	23.0
Male/female sterilization	61	15.3
The injectable	50	12.5
Intrauterine device	43	10.8
Implant	39	9.8
<b>Most suitable method of contraceptive for respondents</b>		
Condom	203	50.8
Periodic abstinence	107	26.8
Withdrawal	43	10.8
Injection	21	5.3
Pill	17	4.3
Emergency pill	8	2.0
<b>A girl can get pregnant if **...</b>		
Her partner uses a condom	208	52.0
She has sex in between her periods	182	45.5
She takes the contraceptive pill	151	37.8
Her partner removes his penis from her vagina before ejaculation	135	33.8

\*\* multiple responses were encouraged

Table 4 indicates that while menstruation (48.3%) and pregnancy (42.3%) were the most talked about sexually related issues with mothers, STIs (21.8%) and couple relationships (18%) were the most talked about with fathers. A higher proportion of mothers (34.8%) were more comfortable about discussing sexually related matters with the respondents than their fathers (15.5%); a similar

proportion of respondents were comfortable discussing such issues with their mothers (37.5%) than with their fathers (33.8%). When parental verbal communication was graded into good and poor, only about a third of the parents were found to be communicating with their wards.

Table 3: Knowledge of Sexually transmitted infections among the respondents

Variable	Frequency (n=400)	Percent (%)
<b>Ever heard of STI</b>	360	90
Yes	40	10
No		
<b>People get infected with STI when**</b>		
They use a condom	149	37.3
They chose a sexual partner that looks healthy	126	31.5
They have sex with a known person	101	25.3
They take antibiotics before sex	82	20.5
<b>Known ways of preventing STI</b>	76	19.0
Abstinence	283	70.8
Condom	117	29.2
<b>Ways of contracting STIs **</b>		
Unprotected sex	353	88.3
Blood and blood products	270	67.5
Needles and syringes	254	63.5
Mother to child	250	62.5
Sharing toilets	112	28.0
Mosquito bites	56	14.0
Coughing and sneezing	52	13.0
Shaking hands	18	4.5
<b>Symptoms of STI**</b>		
Weight loss	256	66.5
Burning area when passing urine	248	62.0
Swelling/boil at the genitalia	194	48.5
Body rash	172	43.0
Discharge from genital area	164	41.0

\*\*multiple responses were encouraged

As shown in Table 5, sexual knowledge was significantly higher among respondents who were greater than 16 years of age and were communicating with their parents  $p < 0.05$ . Females who were greater than 16 years were

more likely to have better sexual knowledge than males. However, this finding was not statistically significant.

Table 4: Verbal sexual communication between respondents and their parents

Variable	Frequency (n=400)	Percentage (%)
<b>Verbal Sexual Communication between respondents and parents</b>		
Parents most talked to about things concerning you		
Mother	236	59.6
Father	164	40.4
<b>Frequency of talking to mother about sex related issues</b>		
Rarely	251	62.8
Often	149	37.2
<b>Frequency of talking to father about sex related issues</b>		
Rarely	301	75.5
Often	99	24.5
<b>Most common sexual topics discussed with mother**</b>		
Sexually transmitted Diseases and HIV/AIDS	156	39.0
Pregnancy	169	42.3
Menstruation	193	48.3
<b>Most common sexual topics discussed with father**</b>		
When to start having sex	49	12.3
Sexually Transmitted Diseases and HIV/AIDS	87	21.8
Couple relationships	72	18.0
<b>Comfort of mother while discussing sex with respondents</b>		
Uncomfortable	138	34.6
Very comfortable	139	34.8
She does not talk	123	30.6
<b>Comfort of father while discussing sex with respondents</b>		
Uncomfortable	222	55.5
Very comfortable	64	16.0
She does not talk	114	28.5
<b>Comfort of young person while discussing sex with mother</b>		
Uncomfortable	144	36.0
Very comfortable	62	15.5
He does not talk	194	48.5
<b>Comfort of young person while discussing sex with father</b>		
Uncomfortable	184	46.1
Very comfortable	35	8.8
He does not talk	181	45.1

\*\*multiple responses encouraged

Table 5: Predictors of good sexual knowledge among the respondents

Variable	Odds Ratio	P value	95% Confidence Interval for the Odds Ratio	
			Lower	Upper
<b>Verbal sexual communication</b>				
Communicating	1.907	0.03	0.293	0.804
Not communicating	1			
<b>Age</b>				
≥16 years	2.68	0.003	0.193	0.719
<16years	1			
<b>Gender</b>				
Female	1.480	0.149	0.870	2.519
Male	1			

## DISCUSSION

Less than half of the respondents in this study had good knowledge about sexuality. These findings are clearly evidenced from the results contained within the NDHS survey of 2013 which equally revealed very poor communication between parents and their wards (12). A similar study carried out in Ethiopia and Kenya revealed that only about a third of all the respondents had passable knowledge about their sexuality (13). The low level of sexual knowledge of these young people can be explained by the fact that parents may not be discussing sexuality in the home because they may perceive that it may encourage young ones to try out sex. Additionally, sexuality education is not fully taught in an overwhelming majority of secondary schools despite recommendations and approvals for it (14).

Even though a higher proportion of the respondents in the survey (90%) had heard about STIs and the majority could correctly identify the modes of transmission as well as the common complaints in people with STI, only about half (56.3%) knew that HIV/AIDS was an example of a sexually transmitted disease. This is a worrisome development because young women alone make up 72% of all the global burden of HIV/AIDS in sub-Saharan Africa (2). However, this finding is quite different from that of a similar study carried out in River State, Nigeria, which revealed that 93.6% of all the respondents had heard about STIs and most of the students knew that HIV was a type of STI (14). The general awareness among students in Rivers state, Nigeria that HIV was a form of STI could be attributed to the robust ongoing STI health promotion campaigns on the media in the State. Up until the last survey of National Agency for the Control of AIDS (NACA) sentinel survey in 2015, Rivers was the state with the highest prevalence of HIV/AIDS in Nigeria.

On prevention of sexually transmitted infections, the majority of the respondents in the survey (70.2%) knew that abstinence was a major protective factor, while less than a third (29.8%) of the respondents knew that using condoms during sex was also a protective factor. The finding of this study is comparable to a study carried out in Anambra State, Nigeria, which revealed that about a third of the respondents knew that condom could protect against STI, and only 38.6% also knew that abstinence was a protective factor (15). The United Nations General Assembly Special Session

(UNGASS) has ascertained that the disparity in knowledge about STI prevention among adolescent boys and girls could be linked to gender, education, household wealth and place of residence and may be a pointer to what areas receive the most emphasis in health promotion programmes, both to the presenters/sources and the receivers/consumers worldwide (16). This finding shows that while media campaigns often receive credit for increasing population awareness of health problems and situations, creating a level of knowledge or understanding that may influence action could possibly only be achieved through educational programmes (17).

On fertility, less than half of the respondents knew that a girl was likely to get pregnant if she had sex in between her periods. This result is much higher than the result of the NDHS 2013 where only 19% of all women were aware of the fertile period of a woman (12). Similar studies carried out in Northern Nigeria, Southeast Nigeria, and South Africa revealed that less than 3.1%, 30% and 11% of the respondents respectively were aware of the fertile period in a woman's cycle. (15,18,19) This finding could probably be due to the low level of sexuality information given to students while in schools.

Knowledge of contraceptives was found to be poor in this study. The condom awareness rate is in keeping with the results of the NARHS Plus survey of 2012 with recorded national rates of 64.3% in the 15-19 years' age group. Similar findings were noted in a study carried out in Onitsha, Nigeria, with awareness rates of 72.9% among in school youths and 68.1% among out- of school youths (7,15). However, this poor knowledge about contraceptives is not in keeping with a study carried out in Rivers State, Nigeria, where over 80% of the respondents had heard about contraceptives (14). This difference in contraceptive knowledge may be due to cultural differences in the geographic locations of the respondents.

Verbal communication about sex by the respondents and their parents was found to happen rarely. Only a third (33.0%) of all respondents were communicating with their parents on sexuality matters. This proportion is similar to what was obtained in a study carried out in Ethiopia which revealed that only 36.8% of the participants had ever discussed at least two sexual and reproductive health issues with their parents (20). Studies from 4 different sub-Saharan African cities revealed that the proportion of adolescents reporting having discussed



sexuality matters with their parents ranged from 8% - 38%, in Tanzania, 27% in Northern Nigeria, 12% in Imo State, Nigeria and 10.5% in Anambra State, Nigeria (21-24). This reluctance on the part of the parents and their children may well be associated with our cultural values where it remains almost a taboo to discuss such matters.

In most families, mothers were more likely to talk to respondents about sexuality than fathers. A similar study carried out in a state owned junior secondary school in Northern Nigeria revealed that only 27% and 5% of sexually active students reported communication with mothers about HIV/AIDS and sex respectively while a study executed in Imo State, Nigeria, had reported that 65% of the mothers had discussed sexuality topics with their children. (21-22) Another study in Anambra State, Nigeria, documented that only 10.5% of adolescents who had discussed such topics had ever engaged in sexual intercourse (23). It is crucial to understand that open and honest dialogue ensues when parents starts communicating with their children from an early age (22).

This study revealed that parental-adolescent communication was a predictor of good sexual knowledge (AOR=1.907, p value=0.03). This result is in keeping with the results of a study in Vietnam whereby good sexual knowledge of the young people was associated with the frequency of 'talk' (AOR =2.863, p value =0.016) and comfortability of discussing sexually related issues with parents with (AOR =3.693 p value =0.003) (24). The notable barriers to communication include religious barriers, residual traditional barriers, shame, lack of communication skills and excessive reliance on sex-education and school teachers (25). Being older than 16 years was the only other predictor of good sexual knowledge.

This study was limited to young people who were actively enrolled and attending school. This limits the extent to which the finding can be generalized to the wider community of young people who may not be in school. Other factors (characteristics) of the family that might affect youths' sexual knowledge and psychosocial health were not fully explored. Lastly, taking into account that the influences of sexual knowledge are multifactorial, the exact single factor that can lead to enhanced sexual knowledge among young people may be difficult to determine.

Generally, the sexual knowledge of the respondents was found to be poor. Even though the awareness of sexually transmitted infections and its risk factors, symptoms and prevention were found to be high among the respondents, their knowledge of fertility and modern methods of contraception was low. For the fact that these young people were not well informed about sex and sexually related matters, a good proportion of them had no appreciation of the risks involved in having unprotected sexual intercourse, or the benefits of using contraceptives. However, this study revealed that parental verbal communication influenced the sexual knowledge of the respondents.

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