

Sti Knowledge and Attitude among Adolescents; A Community Based Study in Ikot Omin of Cross River State, Southern Nigeria.

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Abstract

Introduction: To determine the knowledge and attitude of adolescents regarding sexually transmitted infections in IkotOmin community of Cross River State, Nigeria

Methods: The study was a descriptive cross-sectional study where 115 adolescents were selected from IkotOmin community using a multistage sampling technique.

Results: Although 110(96%) of the respondents were aware of STI, however the knowledge of different types of STI among study participants was poor ranging from 26.7% for HIV/AIDS to 4.1% for chlamydia. Knowledge of STI preventive practices among study participants was also poor as only 49.0% could correctly identify at least one STI preventive practice and more than 50% of the respondents have misconception regarding STI preventive practices. Overall 4 out of every 5 respondent had inadequate knowledge on STI.

Attitude was equally poor as only 24.4% of the respondent felt that condom use protects against STI, and 21.8% felt condoms should be worn during sexual intercourse.

At bivariate level, birth position of the respondents, educational level of mother, religion and good perception to condom use was statistically associated with knowledge of STI prevention ($p < 0.05$).

Conclusion: Adolescents in IkotOmin community have inadequate knowledge of sexually transmitted diseases. STI studies should be introduced into the school curriculum and media publicity/enlightenment campaigns intensified.

Key Words – STI, Adolescents, Knowledge, Attitude

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I. Introduction

Sexually transmitted infections (STI's) are infections that are spread primarily through person to person sexual contact (WHO, 2016). There are more than 30 different sexually transmitted infections caused by bacteria, viruses and parasites. Out of which 8 are most common made up of 4 curable STI: chlamydia, gonorrhoea, syphilis and trichomoniasis and 4 are viral STIs which are incurable: hepatitis B, Herpes Simplex Virus (HSV or Herpes), Human Immunodeficiency Virus (HIV) And Human Papilloma Virus (HPV). (WHO,2019) More than 1 million STIs are acquired every day with an estimated 357 million new infections yearly.(WHO, 2019) Beyond the immediate impact of the infection itself, STI can have serious consequences like increase to more than 3 times the risk of acquiring HIV, cause pelvic inflammatory disease, infertility, cervical cancers, stillbirth, neonatal death, low-birth-weight and prematurity, neonatal sepsis, pneumonia, neonatal conjunctivitis, and congenital deformities (WHO,2019)

Approximately 42% of the world population are made up of young people of whom 1.2 billion are adolescents. Adolescence is the age group between 10 to 19 years and it is often characterized by a period of discoveries, sexual experimentation and development of autonomy that create the desire to be an adult and to have the same right (WHO,2016) HIV/AIDS an STI is among the 5 leading causes of death in adolescents worldwide. (WHO,2016) STIs mainly affect sexually active young people (Mcmanus and Dhar, 2008). Sexually transmitted infection (STI) are characterized as hidden epidemics of tremendous health and economic consequence. STIs are among the rapid factors that affect the broad spectrum of reproductive health (Edemet al., 2013)

Nigeria is one of the countries most affected by HIV/AIDS epidemic in sub-saharan Africa. Although the prevalence of HIV/AIDS infection has been on a steady decline in Nigeria with a recent estimate of 1.4% (National Agency for Control of AIDs (NACA), 2019) about 3.2 million people are believed to be living with HIV/AIDS in Nigeria.(UNAIDS,2016) The majority of HIV infections are transmitted through unprotected sexual contact. The presence of STI and having more than one sexual partner are the two most important factors

contributing to the spread of the virus through heterosexual contact. Early sexual debut is common in Nigeria, with 15% of girls and 4% of boys having sex before they are 15 years old. Inter-generational relationships are also common in Nigeria. A 2017 survey found that 41.2% of women between the ages of 15 and 24 had had a sexual partner ten or more years older than them in the last 12 months. This increases HIV risk among this group as often the virus is passed from older men to younger women.(National Bureau of Statistics(NBS), 2019)

Incidence and prevalence estimates suggest that young people aged 15–24 years acquire half of all new STIs (Satterwhite et al,2008) and that one in four sexually active adolescent females has an STD, such as chlamydia or human papillomavirus (HPV).(Forhan et al, 2009) Compared with older adults, sexually active adolescents aged 15–19 years and young adults aged 20–24 years are at higher risk of acquiring STDs for a combination of behavioral, biological, and cultural reasons. Counselling and behavioural interventions such as education and counselling tailored to the needs of adolescents can help prevent STI, improve people's ability to recognize the symptoms of STIs and increase the likelihood they will seek care or encourage a sexual partner to do so. Unfortunately, lack of public awareness, lack of training of health workers, and long-standing, widespread stigma around STIs remain barriers to greater and more effective use of these (WHO, 2019)

Each year an estimate of 333 million new cases of curable sexually transmitted infections occur worldwide with the second highest rate amongst the 15-19years old (Dehne and Riedner, 2005). Poor knowledge and risky practices related to STIs are a universal phenomenon in young adulthood (Kejela and Saboka 2015).Premature sexual initiation may lead to unprotected sexual intercourse that may cause HIV infection and other STIs. The higher prevalence of STI's amongst adolescent may also reflect multiple barrier to assessing quality STI prevention and management services including inability to pay, lack of transportation, long waiting times, conflicts between work/school schedules and clinic hour, embarrassment attached to seeking STI services, method of specimen collection and concerns about confidentiality (Tilson, 2004). More so negative provider attitudes towards young people and their sexual activities, limited access to youth-friendly services, low awareness of HIV and fear of stigma as being key challenges preventing young people from taking up sexual health services. (NACA,2015)

There is scanty literature on knowledge of adolescents on STI, especially in the suburban communities in Cross River State. Thus this study aims to assess knowledge and attitude of STI prevention among adolescents in IkotOmin and to provide a baseline information for further research and policy making.

II. Method

This study was conducted at IkotOmin, which is a sub urban community in Calabar Municipal Local Government Area of Cross River State Nigeria, with a population of 16,000 people using an estimated growth rate of 2.9% per annum from the 1991 census. (NPC,2006)The community has a primary health centre and four health posts. It has a nursery, a primary and a secondary school. It has a market, 4 churches and a mosque.

This was a descriptive cross-sectional study using an interviewer administered semi structured questionnaire to collect information on STI knowledge, attitude and preventive practices among 115 adolescents (10-19 years) who gave assent and parental consent, using 2 stage cluster, out of the six communities in IkotOmin, Nasarawa community was selected by simple random sampling, then all consenting eligible respondents in the community were selected and questionnaire administered.

An interviewer administered semi structured questionnaire was used to collect information on knowledge, attitude and prevention practises of STIs amongst adolescents

The Statistical Package for the Social Sciences (SPSS) version 20.0 was used for data analysis and the Microsoft Excel was used for data presentation. Frequencies and proportions were used as summary statistics to describe variables. Chi-square was used to compare dependent and independent variables (age, sex, educational level.) at 5%level of significance. Variables that were significant at the bivariate analysis were subjected to logistic regression to identify independent predictors of knowledge of STI preventive practices at 5% level of significance.

In determining the knowledge score of each respondent about STI, a fifteen point scale developed.Each correct response was scored one mark and nonresponse or wrong response was scored zero mark. Those who scored seven points or less (≤ 7)were considered as having inadequate knowledge while a score of eight points or more (≥ 8) were considered as having adequate knowledge

III. Results

Table 1 Socio-demographic characteristics of study participants

Table 1 shows the socio-demographic characteristics of study participants. A total of 115 individuals with mean age of 14.3 ± 1.99 years participated in the study, out of which 41(35.7%) were males and 74(64.3%) were females. Majorities were Christians (91.3%), of Efik tribe (43.5%),from a nuclear family (63.5%) and lives with parents (78.2%).

Table 1: Socio-Demographic Characteristics of Study Participants (N=115)

Variable	Frequency(n=115)	Percentage (%)
Age group/years		
10-12	17	14.8
13-15	58	50.5
16-18	40	34.7
Mean age ± SD	14.31±1.99	
Sex		
Male	41	35.7
Female	74	64.3
Religion		
Christianity	105	91.3
Islam	10	8.7
Family type		
Nuclear	73	63.5
Extended	42	36.5
Ethnic group		
Efik	50	43.5
Ekoi	11	9.5
Annang	19	16.5
Ibibio	16	14.0
Igbo	6	5.2
Hausa	13	11.3
Number of Children in family		
1-4	67	58.2
≥ 5	48	41.8
Birth position		
1-4	93	80.9
≥5	22	19.1
Lives with:		
Parents	90	78.2
Relatives	20	17.3
Guardian	5	4.5
Father's highest educational level		
Primary	24	20.9
Secondary	44	38.2
Tertiary	47	40.9
Mother's highest educational level		
Primary	21	18.3
Secondary	56	48.7
Tertiary	38	33.0

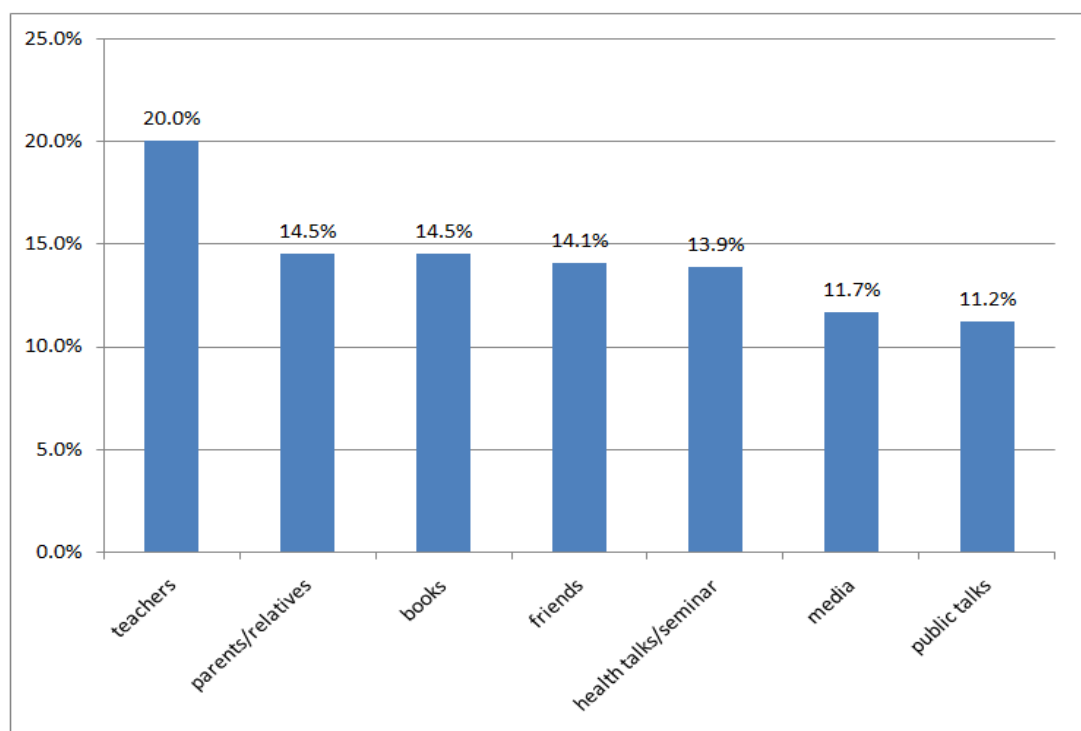


Figure 1: Main Source of information regarding STI among study participants

Figure 1 shows the main source of information regarding STI among study participants. The most information was gotten from teachers (20.0%); followed by books and parents/relatives (14.5%); friends (14.1%); health talks/seminars (13.9%); media (11.7%) and the least, public talks (11.2%).

Table 2 shows that 110(96%) of the respondents were aware of STI. However the knowledge of different types of STI among study participants was poor ranging from 26.7% for HIV/AIDS to 4.1% for chlamydia. Knowledge of STI preventive practices among study participants was also poor as only 49.0% could correctly identify at least one STI preventive practice and more than 50% of the respondents have misconception regarding STI preventive practices. About 4 out of every 5 (80%) respondent had inadequate knowledge on STI.

TABLE 2: AWARENESS AND KNOWLEDGE OF STI BY RESPONDENTS

Variable	Frequency (N=110)	Percentage (%)
Awareness on STI		
Aware	110	96
Not aware	5	4
Knowledge of STIs		
Knowledge on types of STI		
HIV/AIDS	29	26.5
Gonorrhoea	21	19.0
Syphilis	17	15.5
Human Papilloma Virus	16	14.5
Trichonomiasis	8	7.2
Hepatitis B	7	6.4
Genital herpes	7	6.4
Chlamydia	5	4.5
Knowledge and misconceptions on STI prevention		
Being faithful	20	18.1
Condom use	19	17.3
Abstinence	15	13.6
Using clean toilet	11	10.0
Withdrawal	10	9.0
Washing genitals after sex	9	8.2
Antibiotics use after sex	9	8.2
Contraceptive use	7	6.4
Herbs	6	5.6
Alcohol	4	3.6
Knowledge score		
Adequate	17	15.5%
Inadequate	93	84.5%

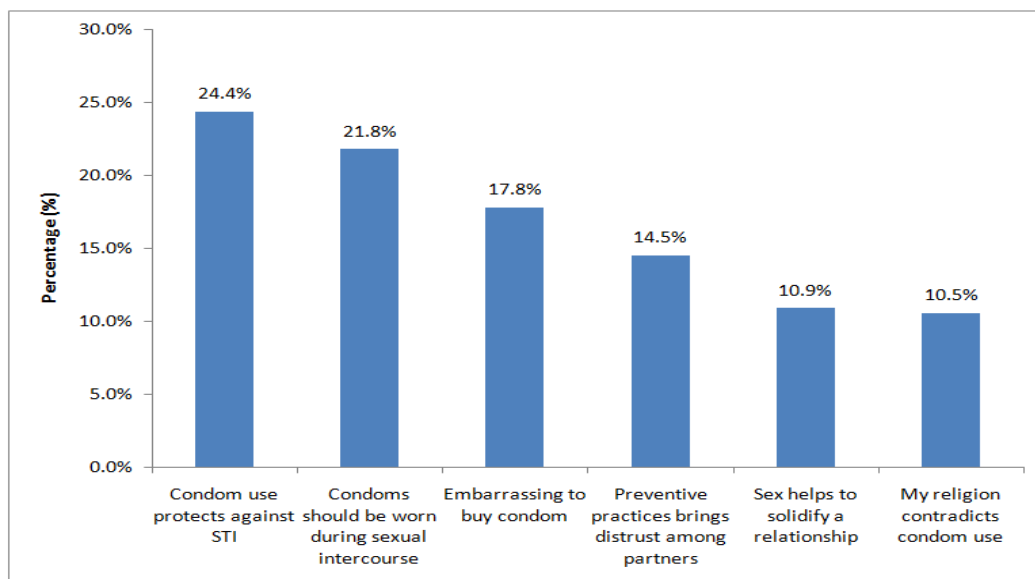


Figure 2: Respondents' perception towards STI prevention

Figure 2 shows respondent’s perception toward STI prevention. This was equally poor as only 24.4% of the respondent felt that condom use protects against STI, and 21.8% felt condoms should be worn during sexual intercourse.

However, 14.5% felt preventive practices brings distrust among partners, 10.9% felt sex helps to solidify a relationship, while 17.8% felt it was embarrassing to buy condoms and 10.5% perceive that their religion contradicts condom use.

Table 3 shows socio-demographic factors associated with knowledge of STI preventive practices among respondents.

The birth position of the respondents was statistically associated with knowledge of STI prevention ($p < 0.05$) as 90% of respondent having a birth position of ≥ 5 were more knowledgeable on STI prevention compared to 10% who were not knowledgeable.

Education level of mother was also statistically significantly associated with STI prevention knowledge of respondents, as children of mothers with secondary school level of education were more knowledgeable on STI prevention. ($p < 0.05$)

Being a Christian was also statistically associated with knowledge of STI preventive practices among respondents. ($p < 0.05$)

Table 3: Socio-demographic factors associated with knowledge of STI prevention among study participants (N=110)

Knows any method of STI prevention					
Variable	Yes(n=91)	No(n=19)	Total(N=110)	Chi square test	p-value
Age group/years					
10-12	12(75.0)	4(25.0)	16(100.0)	1.100	0.577
13-15	46(82.1)	10(17.9)	56(100.0)		
16-18	33(86.8)	5(13.2)	38(100.0)		
Sex					
Male	31(79.5)	8(20.5)	39(100.0)	0.444	0.505
Female	60(84.5)	11(15.5)	71(100.0)		
Religion					
Christianity	86(85.1)	15(14.9)	101(100.0)	5.065	0.046*
Islam	5(55.6)	4(44.9)	9(100.0)		
Type of family					
Nuclear	58(82.9)	12(17.1)	70(100.0)	0.002	0.962
Extended	33(82.5)	7(17.5)	40(100.0)		
Children in household					
1-4	52(81.2)	12(18.8)	64(100.0)	2.335	0.311
5-8	36(87.8)	5(12.2)	41(100.0)		
≥ 9	3(60.0)	2(40.0)	5(100.0)		
Birth position					
1-4	73(81.1)	17(18.9)	90(100.0)	6.176	0.046*
≥ 5	18(90.0)	2(10.0)	20(100.0)		
Education of father					
Primary	17(73.9)	6(26.1)	23(100.0)	2.056	0.358
Secondary	37(88.1)	5(11.9)	42(100.0)		
Tertiary	37(82.2)	8(17.8)	45(100.0)		
Education of mother					
Primary	13(59.1)	9(40.9)	22(100.0)	9.541	0.008*
Secondary	47(90.4)	5(9.6)	52(100.0)		
Tertiary	31(86.1)	5(13.9)	36(100.0)		

Statistically significant = $p < 0.05$

Table 4 shows the socio-demographic factors associated with perception on knowledge of STI preventive practices among respondents. Those respondents who knew STI preventive practices had good perception to condom use (90%) compared to those with inadequate knowledge(10%) and this result was statistically significant.

Table 4: Socio-demographic factors associated with perception on knowledge of STI preventive practices among respondents.

Knows any STI preventive practices?					
Variable	Yes (n=91)	No(n=19)	Total (N=110)	Chi square test	p-value
Preventive practices reduces sexual pleasure					
Yes	54(83.1)	11(16.9)	65(100.0)	0.103	0.950
No	16(84.2)	3(15.8)	19(100.0)		
I don't know	21(80.8)	5(19.2)	26(100.0)		
Sex helps to solidify a relationship					

Yes	23(76.7)	7(23.3)	30(100.0)	1.152	0.562
No	49(86.0)	8(14.0)	57(100.0)		
I don't know	19(82.6)	4(17.4)	23(100.0)		
Condoms should be worn during sexual intercourse					
Yes	54(90.0)	6(10.0)	60(100.0)	8.789	0.012*
No	23(85.2)	4(14.8)	27(100.0)		
I don't know	14(60.9)	9(39.1)	23(100.0)		
Condom use protects one against STI					
Yes	56(83.6)	11(16.4)	67(100.0)	1.100	0.577
No	20(87.0)	3(13.0)	23(100.0)		
I don't know	15(75.0)	5(25.0)	20(100.0)		
Religion contradicts condom use					
Yes	25(86.2)	4(13.8)	29(100.0)	2.043	0.360
No	34(87.2)	5(12.8)	39(100.0)		
I don't know	32(76.2)	10(23.8)	42(100.0)		
Preventive practices brings distrust among partners					
Yes	32(80.0)	8(20.0)	40(100.0)	1.054	0.590
No	24(88.9)	3(11.1)	27(100.0)		
I don't know	35(81.4)	8(18.6)	43(100.0)		
Embarrassing for one to buy condom					
Yes	36(73.5)	13(26.5)	49(100.0)	5.906	0.052
No	30(93.8)	2(6.2)	32(100.0)		
I don't know	25(86.2)	4(13.8)	29(100.0)		

* = Statistically significant = $p < 0.05$

IV. Discussion

This was a study on the STI knowledge, attitude and preventive practice of adolescent in IkotOmin community, a suburban population of Cross River State.

Nearly all the respondents were aware of STI, this is similar to studies conducted in Ado Ekiti, South Western Nigeria (Amu and Adegun, 2015) and Malaysia, in which 92% of the respondents reported awareness of STDs (Awang et al, 2014) However it is higher that of a study conducted in Northern Nigeria where only 67% of adolescents were aware of STI (Aliyu et al, 2013). This disparity could be because of disparity in literacy level in Northern and Southern Nigeria, which is the site of this study

The primary source of information about STI among respondents was their teachers (20%) , this is similar to a study conducted among adolescents in North Western Nigeria in which the major sources of information were school lessons, mass media, and health magazines (Aliyu et al, 2013) and that conducted in Thailand in which the major sources of information were school, Internet, and

hospital/clinic (Sevensson, 2013) but it differs from a study carried out in Bhutan with study participants aged 15-49 years that gave health care workers as being the primary source of information.(Kunzang et al, 2013).

This study shows that HIV/AIDS is known by most of the study participants (26.7%) as being an STI followed by gonorrhoea, syphilis, this is similar to a study conducted on secondary school students in Nnewi LGA, Anambra state Nigeria by Nwabueze et al which showed that knowledge was generally higher for HIV, syphilis and gonorrhoea.

About 1 in every 2 of the respondent had a misconception regarding the mode of prevention of STI, this is much higher than gotten from a previous study in Ado Ekiti where only 25% of the respondent had misconception on mode of STI transmission and prevention.(Amu and Adegun, 2015)

Knowledge and perception of STI was poor among respondent as only 21.5% of respondent had adequate knowledge of STI, this is in comparable to a study done in Italy where only 14% of the respondents were knowledgeable on STI,(Trani et al, 2005)but it contrast a study in Ado Ekiti where only 6.9% of the respondent had good knowledge of STI.(Amu and Adegun, 2015)

At bivariate level, birth position of the respondents, educational level of mother and religion was statistically associated with knowledge of STI prevention ($p < 0.05$). Also good perception to condom use was statistically associated with knowledge of STI preventive practices.($p < 0.05$)

This study concluded that adolescents in Ikotomin community were mostly aware of sexually transmitted infections but lack in-depth knowledge about STIs. Comprehensive health education about other sexually transmitted infections (apart from HIV/AIDS) should be introduced into the secondary school curriculum. Media enlightenment campaigns about these diseases should also be emphasized especially at community level.

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