ORIGINAL RESEARCH

Sexual practices and outcomes of young people in an urban settlement in Benin City, Nigeria

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Abstract

Background: Young people constitute one of the most dynamic human resource bases. Young people explore their sexuality and have sexual relationships with outcomes such as unintended pregnancies, abortions, STIs and HIV/AIDS. **Objective:** This study ascertained the sexual practices and factors associated with the sexual outcomes of young people in an urban settlement in Benin City, Nigeria. **Methods:** A descriptive, cross-sectional study was conducted among 400 young people in Oluku, Benin City, Nigeria, using a two-staged sampling method. A structured questionnaire administered by an interviewer was used for data collection. **Results:** The respondents comprised of 211(52.8%) females and 189(47.3%) males. Their mean age was 17.8±3.9 years. Almost half -194 (48.5%) - of the respondents had experienced sexual intercourse, of which 154 (79.4%) were unplanned. The mean age at the time of sexual debut was 17.2±3.4 years.

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Most sexual encounters were with older partners. Unintended pregnancies and STIs were the outcomes of sexual encounters in 54(27.8%) and 40(20.6%) of respondents, respectively. Factors associated with the outcome of sexual encounter were age, gender, age at sexual debut and family structure. **Conclusion:** The respondents had early sexual debuts. Sexual encounters took place mainly with older neighbors and schoolmates. Sexual outcomes reported by respondents include unintended pregnancy and STIs. Age, gender, age at sexual debut and family type were associated with outcomes of sexual practice. Key stakeholders should establish youth friendly centres in the community to help educate and train youth on life building skills and provide sexual and reproductive health services to young people in the community. **Keywords:** Sexual practices and outcomes, associated factors, young people, urban settlement, Nigeria.

Introduction

Adolescence offers an ideal window of opportunity for building the foundations of sexual and reproductive health and rights, preparing young people to explore their sexuality, commence sexual relationships and make sexual and reproductive decisions.[1-3] The sexual activities and practices of young people put them at risk of sexual and reproductive health outcomes such as early pregnancy, unsafe abortion, and sexually transmitted infections (STIs), including human immunodeficiency virus (HIV), in addition to sexual coercion and violence.[4]

In developing countries, about 20-50% of females give birth before adulthood, often suffering the consequences of pregnancy-related problems, which constitute a leading cause of death for adolescents aged 15–19 years. In sub-Saharan Africa, young women below 25 years of age account for nearly 60% of all unsafe abortions.[2] Similarly, adolescents are responsible for 60% of unsafe abortions that occur in Nigeria. Furthermore, 30.5% of young people are sexually active, thus increasing their risk of contracting HIV/AIDS and other STIs.[5] Young people are exposed to other serious morbidity and mortality related to their sexual and reproductive actions and attitudes.[6,7]

Many studies on adolescents' and young people's sexual practices in Nigeria are institutional.[1,6,8] This community-based study assessed the factors associated with the sexual practices and outcomes of young people 10-24 years of age in an urban community in Benin City, Nigeria, that plays host to numerous hospitalities related commercial activities such as retail sale of alcoholic drinks, bars, guest houses, hotels, and brothels. These activities promote risky lifestyles such as alcohol and tobacco intake, drug use, and sex related practices for residents, visitors, and long-distance travelers in transit. The identification of sexual outcomes in the study could help channel skill-based education programs to mitigate the effects of these sexual consequences.

Methods

Study setting

The study was carried out in Oluku, Ovia North-East Local Government Area (LGA), Edo State in the South-South geopolitical zone of Nigeria. The community has a primary health centre, four primary schools, a secondary school, a market and three gas stations. The community is divided into two by the Lagos-Benin Expressway. It is a transit town for long-distance travelers especially truck drivers and their assistants. There are several hotels, brothels, and a night market in the community. The population of young persons (aged 10-24 years) in Ovia North East LGA, Edo State, Nigeria at the time was 53,583.[9]-

Study design, population, and duration

A descriptive, community-based cross-sectional study was carried out among 400 young people in Oluku between January and June, 2013. Study respondents included all young people residing (in-school and out-of school) in the community and present at the time of the survey, while those who refused consent were excluded.

Sample size determination

Sample size was calculated using Cochran's formula for minimum sample size determination in a cross-sectional study:[10] $n = z^2pq/d^2$. Where $d = 5\%$ error margin; z = standard normal deviate set at 95% confidence level ($z = 1.96$); p = Proportion of students who had sexual intercourse in a study done in Jos, Nigeria ($p = 62\%$)[5] and $q = 100 - p$. A calculated sample size of 348 was obtained. With the addition of the 10% non-response rate, the sample size became 383. A total of 400 questionnaires were administered to the selected young people in the study area.

Sampling technique

A two-staged sampling technique was used for this study. **Stage one**: The Lagos - Benin Expressway divides the community into two, Oluku I and II. A simple random sampling technique (balloting) was used to select Oluku II. **Stage two**: An initial enumeration of Oluku II was done by the research team to determine the number of houses and households, through counting and numbering. The selected community had 172 houses and 526 households. From these, 400 respondents were selected from households using a simple random sampling technique (table of random numbers). In households with more than one young person, the participant was selected by balloting.

Data collection tool

Quantitative data collection was utilized for the study, using a questionnaire adapted from the 2007 National HIV/AIDS and Reproductive Health Survey (NARHS) plus.[11] The pretested, structured, interviewer-administered questionnaire was administered to young people residing in the community. The questionnaire covered socio-demographic data, age at first intercourse, sexual practices, frequency, periodicity, planning and outcome of sexual practices. Ten research assistants who were final-year medical students from the University of Benin, were recruited and

trained over a period of three days on how to administer the questionnaire.

Data analysis

The collected quantitative data was entered and analyzed using IBM SPSS version 20 [IBM Corp., Armonk, New York, USA]. Statistical analysis of association of proportions was done using Fisher's test, with statistical significance set at $p < 0.05$ at 95% confidence interval. Multivariate analysis was done, using binary logistic regression model for variables that were statistically significant, in order to identify the predictors of outcomes of unintended pregnancies and STIs among the respondents. Odds ratios (OR) and their corresponding 95% confidence intervals were presented.

Ethical considerations

Ethical approval was obtained from the Ethics and Research Committee of the University of Benin Teaching Hospital [Protocol number: ADM/E 22/A/VOL.VII/925]. Permission was obtained from the community and youth leaders, while parents gave consent for questionnaires to be administered. Individual informed consent was obtained from each respondent before the questionnaire was filled. Participation was voluntary and there was no inducement or undue influence on participants. Participants' confidentiality and privacy were respected during the course of the study: serial number, rather than name, was used to identify each respondent. The survey results were coded and kept secure by the researcher. Respondents were informed that there would be no penalties or loss of benefit for refusal to participate in the study or withdrawal from it. Each questionnaire was administered in approximately 20-30 minutes during the field work. Career talk and health education was given to each respondent after administering the questionnaire. Young people who were ill and could not be managed by the research team were referred to the Primary Health Care Centre in the community for treatment.

Limitation of study

A limitation of this house-to-house survey is the possibility that some of the respondents may have given responses that may not be a true representation of their sexual behaviour and practices because of the sensitive nature of the topic, to avoid stigmatization. There could be under-reporting of sexual practices and outcomes by the young respondents. Also, the prevalence of unintended pregnancies and STIs were self-reported by the respondents and could not be verified by the research team. Further research could utilize a mixed method of data collection including examination of the respondents for the existence of STIs. Health records could also be examined at the health facilities, though this could be difficult because of the poor quality or complete lack of data management information systems in Nigerian health facilities.

Results

Of the 400 respondents that took part in the study, 211(52.8%) and 189(47.3) were females and males, respectively. A quarter of the respondents -100(25.0%) - were within the 10-14 years age group, while 154(38.5%) and 156(36.5%) were in the age group of 15-19 and 20-24 years, respectively. The mean age of the respondents was 17.8±3.9 years, while those for females and males were 17.1±3.9 and 18.1±3.9 years, respectively. The difference in the mean ages for females and males was statistically significant ($p = 0.025$, $t = 2.25$). Edo State indigenes made up 187(46.8%) of the respondents. A higher proportion of respondents were of the Benin ethnicity 145(36.3%), others were Igbo 85(21.3%), Yoruba 74(18.5%), Esan 26(6.5%). Over three-quarters of the respondents were Christians 346(86.5%) while 33(8.2%) were Moslems. About a third 271(67.8%) and 52(13.0%) of the respondents had secondary and tertiary levels of education, while 6(1.5%) had no formal education. Most of the respondents were single 363(90.8%) and 289(72.3%) were from monogamous families.

In Table 1, almost half, 194(48.5%) of the respondents had experienced sexual intercourse as reported by 111(57.2%) and 83(42.8%) of the male and female respondents. Over three-quarters, 154(79.4%) of the sexual acts were unplanned. Majority, 117(60.3%) of respondents had their first sexual experience between the ages of 13-18years. The mean age at sexual debut was 17.2±3.4years: 14.6±4.4 and 14.7±4.7 years for males and females, respectively. The difference in mean ages at sexual debut for males and females

was not statistically significant (p = 0.849, t = 19.1). Almost half, 92(47.4%) of the respondents had older partners during their sexual debut, while 22(11.3%) and 44(21.1%) had partners who were of the same age and younger, respectively. Also, in the last 12 months before the study, 107(55.1%) of the young people who had ever had sex, had multiple sexual partners and almost two-thirds of the respondents, 127(66.5%) had sexual intercourse between 1-6 times. Over a third, 41(35.8%) of them had sexual intercourse once a week and 107(55.1%) at least once a month.

Other types of sexual practices reported by the respondents include kissing 267(66.8%); oral sex 63(15.8%); anal sex 45(11.3%); and same sex practice 8(2.0%). Over a quarter, 54 (27.8%) and 40(20.6%) of the young people had unintentional pregnancies and sexually transmitted infections (STIs), respectively, as outcomes of their sexual encounter.

Table 1
Sexual characteristics and practices of respondents

Variables	Frequency	Percent
Ever had Sex (n = 400)		
Yes	194	48.5
No	206	51.5
Planned sexual intercourse (n = 194)		
Planned	40	20.6
Unplanned	154	79.4
Age at sexual debut (n = 194)		
< 10	7	3.6
10-12	32	16.5
13-15	57	29.4
16-18	60	30.9
19-21	38	19.6
Age of respondents first sex partner (n=194)		
Younger	41	21.1
Same Age	22	11.3
Older	92	47.4
Don't remember	39	20.2
Sexual intercourse frequency in last 12months (n = 194)		
None	35	18.0
1 – 3	63	32.5
4 – 6	64	33.0
7 – 9	7	3.6
≥ 10	25	12.9
Periodicity of sexual intercourse in last 12 months (n=159)		
Daily	2	1.2
Once in 2 days	6	3.8
Once a week	41	35.8
≥ Once a month	110	69.2
Number of sexual partners in last 12 months (n=194)		
1	87	44.9
2-3	64	33.0
4-6	14	7.2
7-9	15	7.7
≥10	14	7.2

Table 2 shows that age group (p = 0.001), age at sexual debut (p = 0.037) and family structure (p = 0.028) were associated with the unintended pregnancy outcome of the respondents. This association was statistically significant (p < 0.050).

Table 2
Socio-demographics and unintended pregnancy outcome

Possible predictor variable	Unintended Pregnancy		Fisher's test	p-value
	Yes (%)	No (%)		
	(n = 54)	(n = 140)		
Sex				
Male	31 (27.9)	80 (72.1)	0.011	0.552
Female	23 (27.7)	60 (72.3)		
Level of Education				
None	1 (33.3)	2 (66.7)		
Primary	5 (33.3)	10 (66.7)	1.768	0.645
Secondary	41 (29.1)	100 (70.9)		
Tertiary	7 (20.0)	28 (80.0)		
Religion				
Christianity	47 (28.8)	116 (71.2)	0.527	0.768
Islam	6 (23.1)	20 (76.9)		
Traditional	1 (20.0)	4 (80.0)		
Ethnic group				
Edo	21 (23.1)	70 (68.0)	0.027	0.165
Non-Edo	33 (32.0)	57 (76.9)		
Age (years)				
10-14	8 (57.1)	6 (42.9)	34.621	0.001*
15-19	13 (21.5)	51 (78.5)		
20-24	33 (28.4)	83 (71.6)		
Age at first sex (years)				
< 10	2 (22.2)	7 (77.8)	7.346	0.037*
10-14	16 (48.5)	17 (51.5)		
15-19	17 (24.3)	53 (75.7)		
20-24	19 (23.2)	63 (76.8)		
Family structure				
Monogamous	42 (32.8)	86 (67.2)	6.171	0.028*
Polygamous	11 (19.3)	46 (80.7)		
Separated	1 (11.1)	8 (88.9)		
Type of School				
Day School	44 (29.5)	105 (70.5)	5.054	0.338
Boarding	10 (22.2)	35 (77.8)		

*Statistically significant

When subjected to multivariate analysis, as shown in Table 3, the variables in the model explained 14.4% to 23.1% of the variation in the unintended pregnancy outcome of respondents. The respondents who were 18 years or younger were 4.493(95% CI: 1.657 to 12.184) times significantly more likely to have unintended pregnancies, compared to those older than 18 years. Also, respondents who had a sexual debut before 18 years were 5.944(95% CI: 2.698 to 13.097) times significantly more likely to have an unintended pregnancy, compared to those who were 18 years and above. In addition, the respondents in a monogamous family structure were 1.293(95% CI: 0.573 to 2.920) times more likely to have unintended pregnancy compared to those in a polygamous family structure.

Factors associated with STI as an outcome of sexual intercourse included gender (p = 0.048), family structure (p = 0.030) and unintended pregnancy (p = 0.020) as shown in Table 4.

In Table 5, binary logistic regression model of the variables explained 1.9% to 2.7% of the variation in the occurrence of STIs among the respondents. Male respondents were 1.856(95% CI: 0.743 to 4.633) times more likely to have an STI, compared to female participants. Also, young people from monogamous family structures were 1.023(95% CI: 0.338 to 3.092) times more likely to have an STI, compared to those in polygamous family structures. In addition, respondents who were pregnant were 1.114(95% CI: 0.424 to 2.931) times more likely to have an STI, compared to those without pregnancy. These associations were, however, not statistically significant.

Table 3
Predictors of unintended pregnancy among the respondents

Predictors	β (regression coefficient)	p-value	Odd Ratio	95% C.I	
				Lower	Upper
Age of respondent (years)					
> 18* ≤ 18	1.503	0.003	4.493	1.657	12.184
Age at sexual debut					
< 18 ≥ 18*	1.782	<0.001	5.944	2.698	13.097
Family structure					
Monogamous	0.257	0.536	1.293	0.573	2.920
Polygamous*					
Constant	-3.934	<0.001	0.020		

*Reference Categories are > 18 years; ≥ 18 years at sexual debut; Polygamous family structure. $R^2 = 14.4\% - 23.1\%$, C.I = Confidence Interval

Table 4
Socio-demographics and STI outcome

Possible predictor variable	Had STI		Fisher's test	p value
	Yes (%)	No (%)		
	(n = 40)	(n = 154)		
Age (years) 10-14 15-19 20-24	2 (33.3) 16 (20.8) 22 (19.6)	4 (66.7) 60 (79.2) 90 (80.4)	0.660	0.719
Sex Male Female	28 (25.0) 12 (14.5)	83 (75.0) 71 (85.5)	2.724	0.048*
Religion Christianity Others	35 (21.5) 5 (16.1)	128 (78.5) 26 (83.9)	1.214	0.496
Age at first sex (years) < 10 10-14 15-19 20-24	4 (44.4) 9 (27.3) 12 (17.4) 15 (18.3)	5 (55.6) 24 (72.7) 58 (82.6) 67 (81.7)	4.148	0.187
Family structure Monogamous Polygamous Separated	33 (25.8) 5 (8.8) 2 (22.2)	95 (74.2) 52 (91.2) 7 (77.8)	9. 271	0.030*
Type of school Day School Boarding	32 (21.5) 8 (17.8)	117 (78.5) 37 (82.2)	1.664	0.591
Level of education None Primary Secondary Tertiary	0 (0.0) 1 (6.7) 34 (24.1) 5 (14.3)	3 (100.0) 14 (93.3) 107 (75.9) 30 (85.7)	4.802	0.187
Ethnic group Edo Non-Edo	19 (20.9) 21 (20.4)	95 (74.2) 52 (91.2)	2.724	0.215
Unintended pregnancy outcome				
Yes	17 (31.5)	37 (68.5)	6.216	0.020*
No	23 (16.4)	117 (83.7)		

*Statistically significant

Table 5
Predictors of STI among the respondents

Predictors	β (regression coefficient)	p-value	Odd Ratio	95% C.I	
				Lower	Upper
Sex					
Male Female*	0.618	0.185	1.856	0.743	4.633
Family structure					
Monogamous Polygamous*	0.022	0.968	1.023	0.338	3.092
Pregnancy					
Yes No*	0.108	0.827	1.114	0.424	2.931
Constant	0.535	0.411	1.707		

*Reference Categories are Female gender, Polygamous family structure and No pregnancy.
R^2 = 1.9% - 2.7%, C.I = Confidence Interval

Discussion

Almost half of the young persons interviewed in Oluku had experienced sexual intercourse; lower percentages were seen in studies done in Taiwan,[12] Portugal,[13] Addis Ababa;[14] while higher percentages were shown in studies done in Port Harcourt,[15] Calabar,[16] Owerri,[17] Limpopo, South Africa,[18] Namibia,[19] and Kenya.[20] The National HIV/AIDS and Reproductive Health Survey (NARHS) conducted in Nigeria showed a lower value (43%).[12] The NARHS 2012 study showed a decline from the 2007 findings (32.3%).[21] The presence of numerous hospitality-related commercial activities such as retail sale of alcoholic drinks, bars, guest houses, hotels and brothels in the community may promote risky lifestyles such as alcohol and tobacco intake, drug use and high-risk sex related practices. This situation could result in increased transmission of STIs, including HIV/AIDS, and other consequences of early sexual exposure.

For majority of the respondents, their exposure to sexual intercourse was unplanned. This is in consonance with a study done in Ibadan, Nigeria.[22] Unplanned sexual intercourse could still be linked to factors that promote unhealthy developments in young people, which are abundant in the community. The outcomes associated with unplanned, unprotected sex include unintended pregnancies and unsafe abortions, including STIs and HIV infection.

Most of the respondents had their sexual debut between the ages of 13-18 years. The mean age at sexual debut was 17.2±3.4 years. This result was like those obtained from other studies done in Africa[19,22,23] which showed a similar mean age at first sexual intercourse. Skilled-based health education should be implemented in schools, as specified in the school health policy. This would provide life skills to help young people negotiate and make informed health choices and relationships.

In this study, older persons were responsible for the early exposure of most young people to sexual activities. In addition, young people were regularly exposed to high-risk sexual practices such as multiple sexual partners, frequent sexual intercourse, unprotected/unsafe sex, anal sex etc. Similar findings were reported in the NARHS, Port Harcourt and Ibadan, all in Nigeria.[11,15,22] This situation could have been facilitated by curiosity, ignorance, poverty, and peer pressure from other young people. The presence of affordable chalets and guest houses in the community could provide an enabling environment for older residents and visitors to entice young people to engage in transactional sexual practices. Skill-based education, HIV/AIDS

and STI awareness and prevention campaigns, including continuous media jingles, should target all young people and adults in the community.

Same sex was practiced by 1.5% of the sexually exposed respondents. Other sexual acts reported include oral and anal sex. Similar findings were reported in Ibadan, Nigeria[22] and New York.[24] The self-reports of sexual practices further confirm their existence in our society, contrary to an earlier belief that these practices were only popular in western countries and totally alien to Africa.

Unintended pregnancies and STIs were the reported outcomes of sexual encounters among the respondents. The proportion of unintended pregnancies in this study was in agreement with those revealed by studies done in Port Harcourt and Owerri, both in Southern Nigeria[15,17] and China.[25] These studies showed that 20-25% of adolescent sexual practices resulted in unintended pregnancies. Much lower proportions were seen in North Central Nigeria (9.0%)[5] and NARHS 2012 survey (7.0%).[21] These unintended pregnancies could lead to unsafe abortions, with their attendant morbidities and mortality.

Unintended pregnancies and STI were the outcomes of sexual intercourse, especially among the younger age group and those with earlier ages at sexual debut. This group may be unaware of methods of contraception. This finding gives credence to documentations that younger respondents are at greater risk of contracting STIs, including HIV, than older and more experienced adults. More males than females had STIs as an outcome of sexual intercourse. A possible explanation for this is that clinical signs and symptoms of STI (such as penile discharge and itching) are quite recognizable among males when compared to females, who may be asymptomatic. Thus, public health campaigns should target the younger adolescents.

The majority of the respondents who stated unintended pregnancy as an outcome of sexual exposure also contracted an STI (p = 0.020). This reveals that the young people in the study locale did not regularly practice safe sex with the use of condoms, which provide dual protection from unintended pregnancy and STIs. Young people should abstain from risky sexual activities. Also, the local government authorities and non-governmental agencies working with young people should implement and facilitate youth-friendly centres in the community. The centres would provide continuous peer education and training on life skills, including provision of sexual and reproductive health services to young people in the community. This could reduce unfavorable outcomes of risky sexual practices.

Conclusion

This study showed that about half of young persons in Oluku had experienced sexual intercourse, most of which were unplanned and were with older partners who were neighborhood friends and schoolmates. Sexual debut occurred between the ages of 13-18 years, with a mean age of 17.2±3.4 years. Unintended pregnancy and STI were the outcomes of sexual encounters experienced by a fifth or more of the respondents. Factors associated with sexual outcomes include age, gender, family structure and early age at sexual debut.

Young people should abstain from risky sexual activities. Also, the Local Government Authority and non-governmental agencies working with young people should implement and facilitate youth friendly centres in the community. The centre would help provide continuous peer education and training on life building skills, including provision of sexual and reproductive health services to young people in the community. This could reduce unfavorable outcomes of risky sexual practices.

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