

Factors Influencing Adolescent Sexual Activity in Nigeria: Analysis of the 1990 Demographic and Health Survey

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Introduction

Nigeria, like other parts of the world, has been experiencing increasing sexual activity among unmarried adolescents. In a study conducted in Oyo-state in the southern part of Nigeria in 1982, 42.5 per cent of female adolescents interviewed confirmed they had experienced sexual intercourse (Owuniran, 1982). This figure increased to 51 per cent among female respondents 18 years of age in the same area a few years later (Ladipo et al, 1986).

According to recently published reports of the National Demographic and Health Survey (NDHS) of 1990, 66.3 per cent of female adolescents aged 15 to 19 claimed to have been sexually active in the months prior to when the survey was conducted. According to the report, by age 18, 63 per cent reported having experienced sexual intercourse and only 56 per cent of these were married; at age 20, 80 per cent reported sexual intercourse, out of which 72 per cent were married. The results of the survey also show that 34.1 per cent of teenagers age 15 to 19 were pregnant at the time of the survey and 42.8 per cent of those at age 19 had begun childbearing. These results suggest a very high level of premarital sexual activity, although the exact timing of the onset of sexual activity in relation to age at marriage is difficult to establish.

The recognition of the importance of adolescent pregnancy and childbearing by governments and researchers as a problem that needs urgent attention have been growing as premarital sexual activity increases (Burst, 1979; Edmonds and Paxman, 1984; Wells, 1984; Chui, 1985).

Early exposure of an increasing unmarried adolescent population to sexual activity is likely to continue in the future if the current wave of change in sexual attitudes persist. Early sexual activity is more likely to be unprotected leading to

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teenage pregnancy and early motherhood (Abramson, 1983; Byrne, 1977). This also contributes to the current level of high fertility in Nigeria. This study was therefore carried out with the aim of contributing to the knowledge of the factors influencing adolescent sexual activity in Nigeria with a view to providing policy makers and implementers of the Nigerian Population Policy with information that will enhance their performance and enable the realization of the set targets of the Policy. Using the NDHS data of 1990, this study examines factors associated with adolescent sexual activity. It also describes regional and rural-urban differences in adolescent sexual activity.

The Nigeria Sexual System

In the traditional African society of the past, Nigeria being a typical example, virginity at marriage was near universal for all unmarried female adolescents (Caldwell et al 1991). This was achieved through early betrothal and marriage, and a strict observance of abstinence for women as a premarital sexual standard. This situation has been confirmed by numerous studies in Nigeria and other countries. Traditional Yoruba society placed a high premium on virginity at the time of marriage (Fadipe, 1970; Bolaji, 1984; Ellis, 1970; Orubuloye, 1981). Studies also recorded high levels of adolescent female virginity for the Igbos (Okore, 1987). This practice was also recorded for the Hausa and Fulani societies of the northern part of the country (Madauci et al 1986).

Another feature of the traditional marriage system was family arranged marriage. Kin participation in the selection and betrothal of the marital partner was recorded for the ethnic groups mentioned above (Feyisetan and Akinrinola, 1991; Orubuloye, 1987). Studies from other parts of Africa also corroborate this situation (Caldwell et al 1983; Mhaloyi, 1987). Many traditional values and societal practices have, however, undergone changes with the advent of colonialism and traditional sexual values are not an exception. Features of the transition that has taken place are : (1) an almost non-existent value placed on virginity at marriage, (2) individual choice of marital partner, and (3) an increase in the incidence of monogamous marriage.

Before the advent of colonialism, girls were given to marriage at a very early age and this helped to sustain a culture of premarital virginity while ensuring that sexual activity was contained within marriage. Polygamy was the cornerstone of the

traditional social system and was the exclusive preserve of the older males who had many wives, acquired mainly as an economic investment to help on the farm and also build a large labor force through bearing of children (Caldwell et al, 1991). In order to maintain their monopoly of available women, this group of the population (older males) instituted barriers in the marriage system in the form of bride price, pawning property for brides, and involvement of prominent family members in the long process of marital negotiations. This made it difficult for younger males to negotiate for brides without the tacit approval of elders in their family. Age at marriage was therefore late (at least 30 years), when young adults were deemed ripe for it.

How then was the society able to take care of the sexual needs of young adult males in their population? A married woman is said to be wife to her husband's family as a whole and cannot refuse sexual advances from her husband's brother or son, although this has to be done discreetly (Caldwell et al 1991, 1992). With this kind of understanding, the traditional society contained the sexual escapades of young adult males. Similar arrangements were recorded in Northern Nigeria and other African countries like Botswana, Burundi, Uganda, Kenya, Tanzania and Mozambique (Temple, 1965; Schapera, 1939; Llewelyn-Davies, 1978; Willson, 1977; Junod, 1927; cited in Caldwell et al 1991).

The advent of colonialism brought with it the instruments that dislocated the institutional arrangement of sexual activities within the system. This took the form of discouraging arranged marriage by providing wage employment in urban areas for young men, some of whom were able to afford bride price exclusive of their family contribution, thus changing the concept that a woman is the property of her husband's family; introducing western education which brought along with it some level of secularity and encouraged delayed marriage; introducing the concept of one man one wife through Christianity, thus breaking the monopoly of having many wives by the old and powerful in the society; and instituting customary laws of divorce, which encouraged dissatisfied women to leave their marital home (Caldwell, 1991). All these contributed to weakening the social system of the society, especially as it related to sexual activity.

Processes operating since independence have also influenced sexual activity. Development activities have been concentrated in urban areas at the expense of rural areas. Social infrastructure like schools, hospitals, electricity, piped water and communication systems are located mostly in the urban areas. Likewise, the location

of industries and job opportunities (both private and public). Also, the seat of government in the federal, state, and local levels are located in the urban areas (Adepoju, 1983). Urban areas are therefore heterogeneous, consisting of migrants from different cultural backgrounds. It serves as a point of interaction among cultures, but of more importance is that it serves as a diffusion medium between these cultures and modernization (Westernization). An adolescent in the urban area is therefore, more likely to be exposed to a set of conflicting values than his/her rural counterpart.

In addition, an adolescent in the urban area is more likely to be exposed to less parental influence, more education, densely peopled living arrangement, and peer group influences, all of which tend to mold him/her towards more "liberal" sexual behavior which may affect their sexual activities (Feyisetan and Pebley, 1989). On the other hand, an adolescent in the rural area may be less exposed to conflicting set of values, more influenced by culture and parental control which will affect their attitude towards sexuality. These sets of conditions may constrain them to marry earlier than their urban counterpart. This is not to say that they are left out of the sexual revolution, since studies indicate that the practice of virginity before marriage is now virtually non-existent in most parts of the country (Madauci et al 1968; and Orubuloye, 1981 cited in Feyisctan and Pebley, 1989).

The dislocating traditional sexual systems is more pronounced in the southern parts of the country. In the northern areas, strong Islamic influence contain sexual activities within marriage to some extent but this may not be enough to make a significant difference because, the linked concepts of single girls and sexual partner is now universal in the country. In the past, female adolescents may have come under three groups: married; betrothed; and few singles (Caldwell et al, 1991). Today as a result of the whole gamut of change going on in the social system, the sexual scenario has created five groups of female adolescents: (1) those who are sexually active but are not intending to marry because they are still in school; (2) those who are forced into marriage because they had accidental pregnancies and were compelled to get married; (3) those who have resorted to commercial sex; (4) those who are not in school nor married but are sexually active, and (5) the minority who are not sexually active.

Research Methodology

Adolescent sexual activity is influenced by factors operating at many different levels. The study of the complex interrelations amongst these factors is beyond the scope of this research. Instead this analysis focuses on social, cultural, economic and contraception variables. The two dependent variables considered as sexual activity are (1) whether an adolescent is sexually active (dicotomized into; sexually active and not sexually active) and (2) the kind of sexual intercourse (protected or unprotected). The independent variables are- educational status, residence, marital status, socioeconomic status, region, age, peer group influence, religion, knowledge of contraception, attitude towards use of contraceptives and use of contraceptives (the last variable is only considered for those adolescents sexually active).

The study is based on analysis of data from the 1990 Nigerian Demographic and Health Survey. The NDHS was part of a global effort to provide information on fertility, family planning and health. In Nigeria, the sample was derived as a subsample from the National Master Sample for the 1987/92 National Integrated Household based survey system (NISH), of the United Nations National Household Survey Capability Program. The NISH master sample was itself derived from 1973 Census Enumeration Areas (EAs). The 1,678 adolescents of the 8,781 women who participated in the NDHS are the sample used in this analysis.

The term adolescence is defined here as the period of transition between childhood and adult life. In this study, it refers to females who were aged 15-19 at the time the NDHS data was collected. This age group is one of the high risk fertility age groups identified in the population policy of the country. Educational status refers to formal education. This was measured by using data on completed years of schooling. Place of residence, which can be urban or rural, was used to measure the urbanization influence on adolescents. The NDHS questionnaire contains questions on "sources of drinking water" and other facilities at home (Television, Radio, Refrigeration etc). These were used to measure the socioeconomic status of adolescents.

Knowledge of contraception was measured by the number of contraceptive methods ever heard of, while use of contraceptives was based on "currently using a method" of contraception. Approval or non-approval of use of contraceptives was used to analyze general attitudes towards contraception. Peer group influence was determined

by a question on preferred source of information on contraceptives. A sexually active adolescent is one who had sex at least once in the month prior to when the NDHS data was collected. Being sexually active means having coitus with the opposite sex. The sexually active adolescent may have protected or unprotected coitus. Protected sexual intercourse was distinguished from unprotected by the use of a modern form of contraception whenever coitus occurred.

Limitations of the analysis are many due to the secondary nature of the data, which sometimes made it difficult to measure concepts directly. The data available also did not permit including variables such as gender, living arrangements, religious attendance (not just religion), biological influences, parental influences, family interaction, educational aspirations and others in the analysis. There is also the likelihood that some adolescents unwillingly did not admit to being sexually active due to the sensitivity of the topic in the society. This kind of response has also been recorded in other surveys conducted in the country (Feyisetan and Pebley, 1989). These constraints, however, are not considered a serious threat to findings of the study because those who responded were consistent in answering most questions and as such may have truly reflected actual sexual behavior.

Results

Emphasis is placed on unmarried adolescents, a group that is fast increasing in number and who are currently of much interest to the government of the country because of social problems such as unwanted pregnancy, abortion and sexually transmitted diseases that follow early unprotected sexual intercourse (Nigeria National Population Policy, 1988). All married adolescents in the study were sexually active and only a few used a form of contraception.

At least 16 percent of the 1,678 cases were in each of the ages 15-19. Of the 1,104 unmarried adolescents, 26.4 per cent were sexually active at the time of survey. Of these, 67.5 per cent had unprotected coitus while only 32.5 had protected coitus (see Table 1).

The data indicate that more of the unmarried sexually active adolescents live in the urban areas (29.8 per cent for urban and 22.2 for rural). Levels of contraceptive use

Table 1: Percentage Distribution of Unmarried Adolescents by Contraception Status by Age

Sexual Activity	15	16	17	18	19	All ages
Unprotected	79.2	73.3	76.5	57.6	66.2	67.5
Protected	20.3	26.7	23.5	42.4	33.8	32.5
Total	100 (24)	100 (45)	100 (51)	100 (92)	100 (77)	100 (289)

are also higher on urban areas (38.0 per cent) than in rural areas (23.6 per cent). There is regional variation in the percentage of unmarried sexually active adolescents using contraceptives, with the Southwest having the highest levels (38.7 per cent), followed by the Southeast (26.3 per cent) and Northwest (23.1 per cent), while the level for the Northeast is 16.7 per cent. Results also show that the majority of sexually active adolescents lacked correct knowledge of the period of risk of pregnancy, with 15.4 per cent responding don't know, 37.0 per cent for incorrect knowledge and 35.3 per cent for correct knowledge (see Table 2).

Table 2: Percentage Distribution of Unmarried Adolescents Sexually Active by Knowledge of Period of Risk of Pregnancy by Age

Knowledge of period of Pregnancy	15	16	17	18	*	*	Number
					19	All ages	
Don't know	4.5 (176)	15.3 (118)	16.8 (95)	25.0 (76)	32.3 (62)	15.4 (527)	80
Incor. Knw.	13.6 (66)	26.4 (87)	32.1 (84)	56.8 (88)	55.9 (59)	37.0 (384)	142
Corr. Knw.	23.3 (30)	16.7 (30)	22.9 (35)	44.0 (50)	55.6 (45)	35.3 (190)	67
Total	272	235	214	214	166	1101	289

* Statistically significant at 0.05 level

The results show that age of adolescents is strongly associated with sexual intercourse. At age 18, the percentage of unmarried adolescents sexually active increased from 23.7 per cent at age 17 to 42.8 per cent (Table 3).

Table 3: Percentage Distribution of Unmarried Adolescents Sexually Active by Age

Sexual Activity	*	*	*	*	*	*
	15	16	17	18	19	All ages
Not sexually active	91.2	80.5	76.3	57.2	53.0	73.6
Sexually active	8.8	19.5	23.7	42.8	47.0	26.4
Total	100 (272)	100 (236)	100 (215)	100 (215)	100 (166)	100 (1104)

* Statistically significant at 0.05 level

An important variable that had considerable influence on unmarried adolescents' sexual involvement is place of residence. The data presented in Table 4 show that adolescents in urban areas were more sexually active than those in rural areas. Of particular interest is that for unmarried adolescents at ages 18 and 19 there was a 20 percentage point difference between urban and rural areas.

Table 4: Percentage Distribution of Unmarried Adolescents Sexually Active by Residence by Age

Residence	*	*	*	*	*	*
	15	16	17	18	19	All ages
Urban	10.3 (136)	17.6 (119)	20.6 (123)	51.2 (125)	55.4 (101)	29.8 (604)
Rural	7.4 (136)	21.4 (117)	28.3 (92)	31.1 (90)	33.8 (65)	22.2 (500)
Total	272	236	215	215	165	1104

* Statistically significant at 0.05 level

Other variables: religion, level of education, completed years of schooling, knowledge of contraceptives, attitude towards use of contraceptives, use of contraceptives and preferred source of information (both factual and personal) were also found to be associated with the dependent variable of sexual activity.

In the multivariate level (see Table 5), only knowledge of contraceptives, age of adolescents, attitude towards contraceptive use and source of factual information (friends) were statistically associated with being sexually active. Advancing from one age to another is predicted to increase the probability of an adolescent being sexually active by 58 per cent. An adolescent with knowledge of contraceptives will be about 12 times more likely to be sexually active than her counterpart without knowledge. Adolescents sexually active are 2.5 times more likely to obtain information on contraceptives from friends (peer group) than from recognized institutions, relatives, and other sources of information.

Table 5: Logistic Regression Coefficients and Odds Ratios of the Factors Influencing Unmarried Adolescent Sexual Intercourse

DETERMINANTS	REGRESSION COEFFICIENTS	SIGNIFICANCE	ODDS RATIOS
AGE of Adolescents	0.4563	0.0000 *	1.5782
RESIDENCE			
Urban	0.1857	0.3567	1.2037
Rural +			
REGION			
Southeast	0.1962	0.5576	1.2168
Southwest	0.2929	0.4002	1.2402
Northeast	0.2767	0.5493	0.7582
Northwest +			
EDUCATIONAL STATUS	0.0399	0.3889	0.9609

Table 5: (Continued)

DETERMINANTS	REGRESSION COEFFICIENTS	SIGNIFICANCE	ODDS RATIOS
KNOWLEDGE OF CONTRACEPTIVES			
Average Knowledge	2.4794	0.0000 *	11.9340
Low Knowledge	1.1801	0.0000 *	3.2547
No Knowledge +			
INFORMATION ON CONTRA. USE (Factual)			
Recogn. Inst.	0.2441	0.5102	1.2765
Relations	0.1843	0.6826	1.2024
Friends	0.9096	0.0312 *	2.4834
Others +			
INFORMATION ON CONTRA. USE (Personal)			
Recogn. Inst.	-0.0438	0.9039	0.9571
Relatives	-0.7646	0.0671	0.4655
Friends	-0.3013	0.4417	0.7399
Others +			
ATTITUDE TOWARDS USE OF CONTRACEPTIVES			
Favorable	-1.1206	0.0000 *	0.3261
Unfavorable +			
* P < 0.05	+ Reference Category	Chi-Square = 279.642 Significance = 0.0000	

Use of contraceptives (protected or unprotected coitus), was significantly associated at the bivariate level with the following: residence, completed years of schooling, knowledge and attitude to use of contraceptives and preferred source of information (factual/personal) for using contraceptives. When all these variables were considered simultaneously, only peer group (friends) as source of factual information on contraceptive use, and knowledge and attitude towards use of contraceptives were significant (see Table 6).

Table 6: Logistic Regression Coefficients and Odds Ratios of the Factors Influencing Unmarried Adolescent Contraception

Determinants	Regression Coefficients	Significance	ODDS Ratios
RESIDENCE			
Urban	-0.2414	0.4347	0.7855
Rural +			
EDUCATIONAL STATUS			
	0.0742	0.3812	1.0770
KNOWLEDGE OF CONTRACEPTIVES			
Average Knowledge	-2.0080	0.0000 *	0.1343
Low Knowledge			
INFORMATION ON CONTRA. USE (Factual)			
Recogn. Inst.	2.3107	0.0574	10.0817
Relatives	1.3254	0.3612	3.7636
Friends	2.5322	0.0466 *	12.5817
Others +			
INFORMATION ON CONTRA. USE (Personal)			
Recogn. Inst.	0.4816	0.5316	1.6187
Relatives	0.1392	0.8889	1.1494
Friends	0.8203	0.3193	2.2712
Others +			
ATTITUDE TOWARDS USE OF CONTRACEPTIVES			
Favorable	-1.9292	0.0158 *	0.1453
Unfavorable +			
* P < 0.05	+ Reference Category	Chi-Square = 67.401 Significance = 0.0000	

Discussion and Conclusion

According to the logistic regression results shown in Table 5, adolescents were 1.5 times more likely to be sexually active as they move from one age to the other. This confirms findings from other studies (McCabe, 1987; Prasartkul et al, 1987; Earle and Perricone, 1986). The reasons for the strong association may be: (1) that adolescents become more physically mature for coitus as they age (Tanfer and Horn, 1985; Udry et al 1986; Udry et al 1985; Abramson, 1983; Finkel and Finkel, 1983), thereby increasing the probability of engaging in sexual intercourse, (2) age can also increase the chances of independence and individual decision making for adolescents.

Knowledge of contraceptives is another variable that showed a very strong association with being sexually active. Adolescents having average knowledge of contraceptives were twelve times more likely to be sexually active than those with no knowledge. It is important to point out that engagement in sexual intercourse is more likely to trigger a search for information on contraceptives rather than the reverse (Schwartz and Darabi, 1986; Lieberman, 1981; Zelnik and 1982). However, the relationship between knowledge of contraceptives and use, in the multivariate level analysis does not conform with the results at the bivariate level. Those with average knowledge had a lower probability of use compared with those with low knowledge (see Table 6). Knowledge of contraceptives by unmarried adolescents in real life may not be the same as actual knowledge, since many are likely to obtain information from friends who may provide them with inadequate or wrong information about contraceptives. Thus making the dividing line between low knowledge and average knowledge is difficult.

In addition, due to their nature, adolescents embark on sexual escapades without using any form of contraceptives and when they do use contraceptives, they do so sporadically, or use unreliable methods inefficiently. According to findings from studies conducted earlier in Nigeria (Ladipo et al, 1986; Oronsaye and Odiase, 1983), knowledge of contraceptives by adolescents interviewed was related to low and sporadic use. It is important to note that knowledge of contraceptives is a necessary but not sufficient condition for use.

Attitudes towards use of contraceptives had strong negative association with being sexually active and use of contraceptives by adolescents. A probable explanation

is that those sexually active adolescents with favorable attitudes are likely to have been influenced more by westernization process than those with unfavorable attitudes. The westernization process therefore seems to be a medium through which attitudes can change among adolescents. Another interrelated explanation is that societal values disapprove of adolescents' participation in sexual activity outside marriage, therefore, those sexually active would not want their involvement to be known and as such would favor and perhaps use, contraceptives. Those sexually active, but not in favor of contraceptive use, are perhaps unable to reconcile these inhibiting factors or have done so adversely.

Friends were the preferred source of factual information on contraceptive use. This suggests that the majority of unmarried adolescents classified as having average knowledge may have incorrect knowledge of contraceptives, as peer groups are likely to provide them with incorrect information (Barker and Rich, 1992).

It seems from analyses that factors such as educational status, residence and region have only an indirect association with sexual intercourse. Other variables not significant in the multivariate analysis may have also operated indirectly to affect sexual activity.

In order to achieve positive attitudinal change towards use of contraceptives by adolescents, the following program oriented recommendations are made:

1. Parents should be educated through the mass media and at Parents Teachers Association (PTA) meetings. The realities faced by their children and the need to provide them with appropriate information on sexuality should be stressed. Parents and guardians are the first "window" of the child to the world, they are an important source of transmission of values and attitudes (Fisher, 1986; Shan and Zelnick, 1981) and as such should be properly oriented to see sexuality as an integral part of adolescent development.

2. Health educators should work with teachers in schools to develop the necessary curriculum and skills to convey family life and sex education to a child or adolescent appropriate to their age.

3. Since results of analysis show that the most preferred source of factual information are friends, volunteers among adolescents should be recruited and given training on family life and sex education. Topics such as growing up, the reproductive system, concept of the family and its functions, responsible parenthood and the various non-permanent contraceptive methods should be taught. These adolescents should in turn educate their colleagues and friends. The strong influence friends have on adolescents was also confirmed by other studies (Barker and Rich, 1992).

4. It would be very helpful to have adolescent units within existing family planning clinics all over the country. The purpose of these units would be to provide counseling and other services on issues related to adolescence and family planning.

5. Lastly, there must be a strong commitment from the government and health workers to see to the success of programs initiated.

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