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Factors that Influence Parent-Adolescent Communication on Adolescent Reproductive Health in Benue State Nigeria

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ABSTRACT

Communication between parents and adolescents on Adolescent Sexual Reproductive Health (ASRH) is vital in tackling the rising problems associated with ARH (Adolescent Reproductive Health). Many adolescents rely on their peers and social media for information about sex that may be inaccurate and often have to bear with negative consequences. The aim of this study is to assess factors that influence parent-adolescent communication on adolescent reproductive health in Benue state Nigeria. A school-based cross-sectional study was conducted among Junior Secondary School (JSS) 1-3 and Senior Secondary School (SSS) 1-2 in six schools selected from Makurdi and Gboko Local Government Areas (LGA) of Benue state (3 schools from each LGA). Data was collected from 1000 participants, 500 from each LGA using structured, pretested, and self-administered questionnaires and analyzed using SPSS version 20. This study revealed that Parent's gender was found to influence parent-adolescent communication positively as more fathers (48.1%-Makurdi, 38.9%-Gboko) communicated regularly (daily and weekly) with their adolescents than the mothers (31.8%-Makurdi, 38.7%-Gboko). Whereas parents with tertiary level of education engaged more regularly in parent-adolescent communication in both LGAs and those within 30-50 years age group were more regular in their communication than the older parents in both LGAs. Occupation also influenced parent-adolescent communication; those engaged in farming and fishing [O.R.= 11.790, 95% C.I.(3.257-42.719), P = 0.001] were more likely to engage in parent-adolescent communication than those in other occupational groups. In conclusion, this study showed that parent-adolescent communication on sexual and reproductive health is affected by parents' gender, level of education and occupation. It is therefore important that awareness creation on parent-adolescent communication be intensified in schools, hospitals, religious institutions and social media considering the positive impact of this on ASRH

Keywords: Adolescent, communication, parents, reproductive health.

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INTRODUCTION

According to the World Health Organization (WHO) adolescents are those people between 10 and 19 years of age. It includes in the age-based definition of "child", for a person under the age of 18 years where a specific health and developmental needs and rights are sensitive. It is also a time to develop knowledge and skills, learn to manage emotions, relationships, acquire attributes and abilities of assuming adult roles. [1]Adolescents constitute 1.2 billion of the world's population which is up to 16% and this is also equivalent to every 1 in 5persons is an adolescent.[2] They are termed the fastest growing population especially in developing countries.[3] Their risky sexual behaviors and reproductive health problems during adolescence have long-term impacts that continue to affect them throughout their life .[4]

Parent-adolescent communication is defined as a fundamental process through which parents transfer ideas, values, beliefs, expectations, information, and knowledge to their children.[5] Parents are one of the key protective factors for adolescents' health. They greatly influence their children's overall attitudes and behaviors towards health, including SRH. They can potentially be an important source of SRH information to their children. [6,7] This is very crucial as shown by a systematic review of behavioral studies which found that family connectedness in general and sexuality-specific parent--adolescent communication had a protective association with youth sexual and reproductive health outcomes. [7,8] Parents who are open enough for their young child with regards to sexuality have better communication which is important to reduce risky sexual behaviors such as early sexual initiation, unwanted pregnancy, and other reproductive health problems. [9,10] Additionally, a survey in Ghana reported that adolescents who talk with their parents about sexuality are more likely than other youths to delay the initiation of sex and, when they eventually initiate sex, are more likely to use condoms and other methods of contraception. [11]

Parents and adolescents' age, gender, marital and relationship status, educational attainments and religion played influential role in parent-adolescent communication regarding SRH issues. [12] Other factors have been discovered such as cultural taboo, some parents feel embarrassed to discuss on sexual issues, lack of communication skill, belief on sexuality, and knowledge on ASRH issues.[13] However, one of the main barriers to communication between parents and adolescents is the fact that they belong to two different generations. Parents are often unable to keep pace with changing social and technical developments, so that they fail to understand their adolescent children. At the same time, adolescents cannot understand the mindset of their parents who, as they feel, have a very traditional outlook. [14]

In Benue state, literature on the constraints on parent-adolescents' communication on sexual and reproductive health issues are limited. Moreover, this study will help come up with the general recommendations required in reducing the existing barriers and consequently, help improve the adolescents' sexual and reproductive health among adolescents in secondary schools in Benue state and their parents.

MATERIALS AND METHODS

Study Setting and Period

The study was conducted Makurdi and Gboko LGAs in Benue state from May 2019 to June 2020. The state derives its name from the river Benue which is the second largest river in the country. It lies between latitude 7^0 40^0N and $7^0$53°N of the equator and between latitude $8^0$22^0 and $8^0$35° E of the Greenwich Meridian. Makurdi is one of the twenty three Local Government Areas in Benue state with a 2017 projected population estimate of 500,797 out of the 5,741,815 people in the State.[15] Gboko is one of the predominantly urban LGA of Benue State, Nigeria. Its' headquarters are in the town of Gboko.[15]

Study Design, Participants, and Sample Size Determination

A school-based cross-sectional study was conducted among JSS 1-3 and SS 1-2 students in three schools selected from each LGA. All healthy students aged 10-19 years whose parents consented to the study were included in the study, while those who were sick were excluded.

Sample size was calculated using the single population proportion formula considering the following assumptions: 46.7% prevalence from previous study,[16] 5% margin of error, 95% confidence level, and 10% non-response rate that yielded a sample size of 500 (i.e 250 students with 250 parents for each LGA).

Sampling Technique and Data Collection Procedures

A multi-stage sampling technique was used to select the students for the study. At the first stage, the 2 out of the 29 LGAs in Benue state were selected via non probability, purposive sampling technique (which was to capture LGAs that were semi-urban). At the second stage, three schools were selected out of the list of public schools in each LGA via simple random sampling method (balloting) to achieve the sample size. At the third stage, class selection was done. Out of the arms available under each class in each school, one class was picked by simple random sampling technique (balloting)

For the fourth stage, the participants were selected via a systematic random sampling technique. The list of students in the selected schools were used as the sampling frame. A sampling interval of 2 was derived by dividing the number of students in the classes (between 35-40 per class) by the proportionate sample size for each school. Seventeen students were picked from each of the five classes in the three schools to make up the students population of 250 students (82 students from each school). The parents of the selected students were used for the study.

Sampling Interval =Size of the population in each class (35) / Size of the sample needed (17)

Therefore, Sample Interval = 2

The choice of parent (Father or Mother) was influenced by the availability of the parent for the training.

Quantitative Data Collection

Data was collected using pretested, structured, and self-administered questionnaire based on literature which comprised socio-demography, parent-adolescent communication components. Data was collected by the principal investigator and 6 research assistants who were trained for a day. The purpose and objectives of the study was explained to the participants ahead of the process.

Measurement of variables

The dependent variable was the parent-adolescent communication. The Independent variables were parents' socio demographic characteristics (age, sex, occupation, marital status, religion and tribe) and the adolescents' age, gender and tribe.

Statistical Analysis

Data were analyzed using Statistical Package for Social Science version 21 software. Chi square test was used to determine the association between the dependent variables and independent or exposure variables. The regression analysis was used to test for confounders at 0.05 level of significance. The sample was calculated to detect the difference between the intervention groups at power of 80% at 0.05 level of significance (two tail).

Ethical Clearance

Ethical clearance was obtained from Benue State University Teaching Hospital (BSUTH) Health Research Ethics Committee (HREC) and the Benue State Teaching Service Board (attached as appendix). Informed consent was obtained from each school authority and parent before enrolment into the study. For those above 18 years, their consent was sought. The data collected from this study was anonymised by removing name, addresses and other direct identifiers. Participation was voluntary.

RESULTS

Majority of the adolescents were between 10-15 years in

both Makurdi and Gboko (60.0% and 56.8% respectively) with a mean age of 15±2 years (for both LGAs). There were more females than male participants seen in Makurdi (68.4%) and Gboko (64.0%.) with a male to female ratio of 1.7:1 and 2.2:1 in Makurdi and Gboko respectively. The predominant tribe among the adolescents are Tiv (64% in Makurdi and 66% in the Gboko) Other tribes (17.6% in Makurdi

Table 1: Socio-demographic characteristics of the adolescents by LGA

Variables	Makurdi *Freq(%)	Gboko Freq(%)
Age		
...	150(60.0)	142(56.80)
≥16	100(40.0)	108(43.20)
Gender		
Male	79(31.60)	90(36.30)
Female	171(68.4)	160(64.00)
Class		
JSS1	44(17.60)	8(3.200)
JSS2	64(25.60)	36(14.40)
JSS3	31(12.40)	45(18.00)
SS1	50(20.00)	99(39.60)
SS2	61(24.40)	62(24.80)
Tribe		
Tiv	160(64.0)	165(66.0)
Idoma	37(14.80)	37(14.8)
Igede	9(3.60)	11(4.40)
Others	44(17.60)	37(14.80)

**freq =Frequency*

Table 2: Socio-demographic characteristics of the parents by LGA

Variables	Makurdi (n=245) Freq(%)	Gboko (n=245) Freq(%)
Age group (years)		
Mean age ± SD	44(±11years)	46(±9years)
≤30	27(11.0)	12(4.9)
31-40	71(29.0)	66(26.9)
41-50	92(37.6)	103(42.0)
≥51	55(22.4)	64(26.1)
Gender		
Male	108(44.1)	130(53.1)
Female	137(55.9)	115(46.9)
Marital status		
Single	10(4.1)	12(4.9)
Married	215(87.8)	214(87.3)
Others	20(8.2)	19(7.8)
Religion		
Christianity	234(95.5)	236(96.3)
Muslim	11(4.5)	9(3.7)
Occupation		
Civil servant	108(44.1)	79(32.2)
Business	97(39.6)	93(38.0)
Farming/fishing	27(11.0)	67(27.3)
Others	13(5.3)	6(2.4)
Tribe		
Tiv	144(58.8)	181(73.9)
Idoma	46(18.8)	31(12.7)
Igede	7(2.9)	2(0.8)
Others	48(19.6)	31(12.7)
Educational Level		
No education	10 (4.1)	21 (8.6)
Primary	37 (15.1)	39 (15.9)
Secondary	31 (12.7)	93 (38.0)
Tertiary	167 (68.2)	92 (37.6)

and 14.8% in Gboko) were predominantly Etilo, Ijaw, Igala and Igbo. In the Makurdi the predominant class was JSS 2 (25.6%) and the least was JSS3 (12.4%), while in Gboko, majority of the respondents were in SS1 (39.6%) and the least was JSS1 (3.2%)

Majority of the parents in Makurdi were between 41-50 years (37.6%) with the mean age of 44±2 years and mostly female gender (55.9%) while in Gboko, more were within the age range of 41-50years (42.0%) with the mean age of 46 ±9 years and they were mostly males (53.1%). Majority of the parents in both groups were married (87.8% Makurdi and 87.3% Gboko). Those under other marital status were divorced, separated, widow (er) in Makurdi (8.2%) and Gboko (7.8%)

Christians were more in Makurdi and Gboko (95.5% and 96.5% respectively). Civil service and business (Selling goods of any sort) were the most common occupation among parents in Makurdi (44.1%) and Gboko (38%) respectively. Parents under other occupations are those who are self-employed. More than two thirds (68.2%) of the parents in Makurdi had attained tertiary educational level while that of Gboko was secondary education (38.0%). The predominant ethnic group in both Makurdi and Gboko was Tiv (58.8% and 73.9% respectively) Other tribes (19.6% in study and 12.7% in control) were predominantly Etilo, Ijaw, Igala and Igbo.

From the findings on table 3 above, on the factors that affect the regularity of parent-adolescent communication, on sexuality education among parents according to their socio-demographic characteristics, the fathers were more regular (47.7%) in their conversations

than the Mothers (31.3%) and there was a statistically significant (p<0.018) difference in regularity. Parents within the age of 41-50 years (43.7%), the civil servants (46.8%), the Muslims (66.7%) and those with primary school level of education (43.4%) were more regular in their conversation with their adolescents.

From the findings on table 4 above, on the factors that affect the regularity of parent-adolescent communication, on sexuality education among parents according to their socio-demographic characteristics, more fathers were more regular (38.9%) in their conversations than the Mothers (38.7%) and there was a statistically significant (p<0.01) difference in regularity. Parents within the age of 31-40 years (42.3%), the Farmers (40.7%), those of other religion (66.7%) and those with tertiary school level of education (39.3%) were more regular in their conversation with their adolescents.

Table 3 : Parent's Socio-demographic characteristics and regularity of parent-adolescent sexuality communication in Makurdi LGA

Demographic Characteristics	Regular Freq(%)	Irregular Freq(%)
Age group		
≤30	4(33.3)	8(66.7)
31-40	25(37.9)	41(62.1)
41-50	45(43.7)	58(56.3)
>50	24(37.5)	40(62.5)
χ^2, df, P	1.10; 3; 0.78	
Gender		
Male	62(47.7)	68(52.3)
Female	36(31.3)	79(68.7)
χ^2, df, P	6.83;1;0.018*	
Religion		
Christianity	92(39.0)	144(61.0)
Islam	6(66.7)	3(33.3)
χ^2, df, P	2.77; 1; 0.10	
Educational level		
Primary	23(43.4)	30(56.6)
Secondary	34(35.4)	62(64.6)
Tertiary	41(42.7)	55(57.3)
χ^2, df, P	1.39; 2; 0.49	
Occupation		
Civil servant	37(46.8)	42(53.2)
Business	31(33.3)	62(66.7)
Farming/finishing	28(41.8)	39(58.2)
Others	2(33.3)	4(66.7)
χ^2, df, P	3.46; 3; 0.33	
Tribe		
Tiv	73(40.3)	108(59.7)
Idoma	12(38.7)	19(61.3)
Igede	0(0.0)	2(100.0)
Others	13(41.9)	18(58.1)
χ^2, df, P	1.41; 3; 0.70	

**Regular- Parent-adolescent communication on sexuality education given daily and weekly*
**Irregular- Parent-adolescent communication on sexuality education given monthly*
**Statistically significant figures*

The result of the factors influencing parent-adolescent communication such as some socio-demographic characteristics. On univariate analysis, the variables to influence parent-adolescents' sexuality education communication and reproductive health knowledge include: the classes of the students, gender of the parents, ethnic background (Tiv, Idoma, Igede and others) of parents, their educational level and Occupation. To remove the effect of confounding, multivariate logistic regression analysis was used. The factors that were found to independently influence parent-adolescent communication were: student's classes i.e. those in JSS 1 were 5.6 times less likely to have a good ARH knowledge compared to those in SS2 and it increases as the classes increase. For the parent's gender, males were more likely to engage in communication compared to females [

Table 4 : Parent's Socio- demographic characteristic and regularity of parent-adolescent Sexuality Communication in Gboko LGA

Demographic characteristics	*Regular Freq(%)	*Irregular Freq(%)
Age group		
≤30	7(25.9)	20(74.1)
31-40	30(42.3)	41(57.7)
41-50	38(41.3)	54(58.7)
>50	20(36.4)	35(63.6)
χ^2, df, P	2.97;3;0.39	
Gender		
Male	42(38.9)	66(61.1)
Female	53(38.7)	84(61.3)
χ^2, df, P	6.55;1;0.01*	
Religion		
Christianity	90(38.5)	144(61.5)
Islam	3(37.5)	5(62.5)
Others	2(66.7)	1(33.3)
χ^2, df, P	0.89;1;0.34	
Educational level		
Primary	17(37.8)	28(62.2)
Secondary	12(37.5)	20(62.5)
Tertiary	66(39.3)	102(60.7)
χ^2, df, P	4.28;2; 0.12	
Occupation		
Civil servant	43(39.8)	65(60.2)
Business	38(39.2)	59(60.8)
Farming/finishing	11(40.7)	16(59.3)
Others	3(23.1)	10(76.9)
χ^2, df, P	0.45; 3;0.93	
Tribe		
Tiv	55(38.2)	89(61.8)
Idoma	18(39.1)	28(60.9)
Igede	2(28.6)	5(71.4)
Others	20(41.7)	28(58.3)
χ^2, df, P	0.23; 3; 0.97	

**Regular- Parent-adolescent communication on sexuality education given daily and weekly*
**Irregular- Parent-adolescent communication on sexuality education given monthly*
**Statistically significant figures*

O.R=1.564, 95% C.I. (1.052-2.323), P = 0.027] ; For the ethnic background i.e. parent's from the Igede tribe were 1.8 times less likely to engage in communication than others tribes. For parent's educational level i.e. those with primary level of educational attainment were 1.2 times less likely to engage in communication than those with tertiary level of educational attainment. Occupation also influenced parent-adolescent communication; those engaged in farming and fishing [O.R.= 11.790, 95% C.I.(3.257-42.719), P = 0.001] were more likely to engage in parent-adolescent communication than those in other groups.

Table 5: Multivariate logistic regression table on factors influencing parent-adolescents' sexuality education communication and ARH knowledge in the study group

Variables	Odds Ratio (OR)	95% Confidence Interval	P-Value
ADOLESCENTS			
Class			
JSS1	0.179	0.078-0.411	0.001
JSS2	0.553	0.322-0.950	0.032
JSS3	1.428	0.801-2.546	0.227
SS1	1.948	1.193-3.181	0.008
SS2	1.0		
PARENTS			
Gender			
Male	1.564	1.052-2.323	0.027
Female	1.0		
Occupation			
Civil servant	3.638	1.143-11.582	0.029*
Business	3.987	1.312-12.116	0.015*
Farming/fishing	11.796	3.257-42.719	0.001*
Others	1.0		
Tribe			
Tiv	1.630	0.917-2.898	0.096
Idoma	1.355	0.662-2.774	0.407
Igede	0.568	0.103-3.136	0.517
Others	1.0		
Educational level			
Primary	0.863	0.394-1.889	0.713
Secondary	5.094	2.960-8.765	0.001*
Tertiary	1.0		

**=Statistically significant*

DISCUSSION

Our study has identified some factors responsible for limited Parents - Adolescent communication on sexual and reproductive health. This result is likely to have serious implications on the sexual behaviours of the adolescents. The enormous burden of unhealthy and risky adolescent sexual behaviour will result in serious consequences for the adolescents, their parents and the entire country. On the factors that influenced parent-adolescent sexuality education communication, the results showed that the ethnic background of parents seemed to influence parent-adolescent communication. This is similar to the findings in Ethopia, where the prominent parental factor linked to a strong cultural barrier that parents don't talk about sex to their children. [17] As a result, most of adolescent complained that parents do not talk to them. The result on parent's educational level showed that those with secondary level of educational attainment were more likely to engage in parent-adolescent communication than those with tertiary level of education with a statistically significant difference. This does not agree with studies conducted in Osun State, which showed that there was no significant relationship between parent's level of education and parent-adolescent communication.[18] This maybe because those with higher level of education may have more engaging opportunities that may not afford them time to communicate with their adolescents. However, this was similar to findings in Kenya, it was found that the educational level of the parents was associated with whether or not reproductive health issues such as HIV/AIDS had been discussed, with those having a higher level of education were most likely to have had communication with their children. [19] This maybe because higher knowledge exposes parents to know the risk and the complications associated with their sexual behaviour. Similar findings in Iran have shown increasing knowledge among parents as a result of access to communication technology and global media plays an important role in cultural changes. Many individuals have access to satellite television which bridges the knowledge gap regardless of educational or socio-cultural limitations.[20] Occupation also influenced parent-adolescent communication; those engaged in farming and fishing [O.R.= 11.790, 95% C.I.(3.257-42.719), P = 0.001] were more likely to engage in parent-adolescent communication than the other groups. While civil servants were more involved in communicating regularly on sexuality education with their adolescents with a statistically significant difference. This does not

agree with studies done in Korea and the United States of America which reported that higher occupational levels (professionals and high income earners) are more likely to engage their adolescents in sexuality education. [21,22] This is most likely due to the fact that these category of parents are more likely to have higher levels of education. For most people with more income and higher level of education, they maybe too busy to engage their adolescents in communication whereas, farmers and other unskilled workers maybe more attentive to this responsibility and this may account for the finding in this study.[23] Similarly, across different racial groups found that low-income, non-White parents reported more discussion with their children about the negative consequences of sex and where to obtain birth control than did high-income, white parents.[23] This maybe because the low-income and those with lower educational levels are more aware on the financial cost implications from the complications of risky sexual behaviour and are more deliberate to avoid it especially in the midst of financial constraint.

CONCLUSION

Parents are expected to play a crucial role in transmitting appropriate sexual and reproductive health information to their adolescents to ensure that adolescents grow up to lead safe reproductive and sexual lifestyle. Factors that influence parent-adolescent communication, include gender (more fathers communicated regularly than mothers in both LGAs), educational status (parents with tertiary education communicated more) and occupational status (non skilled workers e.g farmers communicated more with their adolescents) were found to influence parent-adolescent communication in this study.

Recommendations

Parents should intensify efforts to equip themselves with ARH and to also get to know their children's specific and unique needs to enable their communication with thieir adolescents.

Whereas, adolescents should be encouraged to maximize the opportunities available at home, at school and other institutions like Adolescent Youth Friendly centers. School authorities should include parental sexuality education training in their curriculum as this will enable parents partner with them in improving ARH knowledge and practice.

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