Demographic Correlates of Selected Reproductive Health Services Utilization among In-School Female Adolescents in Enugu South Local Government Area, Enugu State, Nigeria

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Abstract

The increasing sexual activities among adolescents is no doubt a course to worry, and one question that seems yet to be answered in the literature is whether in-school female adolescents utilize reproductive health services or not, considering their demographic differences. This therefore necessitated an investigation on demographic correlates of selected reproductive health services utilization among in-school female adolescents in Enugu South LGA Enugu State. The correlational survey research design was adopted for the study. Four research questions and two null hypotheses guide the study. The population for the study comprised all the 13, 941 in-school female adolescents in the Zone. A sample of 418 in-school female adolescents was drawn from the population for the study using multistate sampling procedure. A researcher-developed instrument titled; socio-demographic correlates of reproductive health services utilization questionnaire (SCRHSUQ) was employed in data collection. Data collected were analyzed using frequencies, percentages, Pearson's product moment correlation coefficient and Pearson's Chi-square statistic. The study revealed that low proportion of in-school female adolescents utilized reproductive health services (sexuality education services, 24.30%), (prevention and treatment of STIs, HIV/AIDS services, 22.8%). The study also showed that there was a weak negative relationship between age (φ = -.146, p = .004), and a weak positive relationship between school location ($\boldsymbol{\varphi}$ = .132, p = .005) and utilization of reproductive health services among in-school female adolescents. The findings further revealed that there was a significant relationship (χ^2= 8.396, df= 1, p-value= .004) between age of in-school female adolescents and utilization of RHS; while there was no significant relationship between location (χ^2= .019, df= 1, p-value= .546) and utilization of RHS among in-school female adolescents. Based on the findings, it was concluded that utilization of reproductive health services by in-school female adolescents is dependent on their age, and independent of religion and school location.

Keywords: Demographic, Correlates, Reproductive, Health-Services, Utilization Adolescent

Introduction

Reproductive health-services constitute a key component of general health care delivery. They are established for maximal utilization by individuals for enhancement of their reproductive health. Adequate utilization of such services helps to enhance safe delivery, minimize issues of Sexually Transmitted Infections (STIs), reduce the rate of Human Immune Virus (HIV) infections and promote the reproductive health of individuals generally (United Nations' Population Fund –UNPF, 2014). Thus, the United Nation's Sustainable Development Goals (SDGS) report (2017) emphasized the need to ensure healthy lives and promote well-being for all people at all ages (SDGS:3). This goal is set for achieving universal access to sexual and reproductive health care, thereby reducing global maternal death rates, and ending the AIDS epidemic by 2030 (United Nations, 2017).

In Nigeria, to achieve quality reproductive health, the Federal Ministry of Health (FMH) (2013) stipulated that reproductive health services should be made available in all health centres across the country for adequate utilization by individuals. Odang (2014) observed that apart from the efforts made by the federal government to ensure availability of health services generally, even non-governmental organizations such as WHO, UNICEF among others provide health grants for the establishment of health services including those that will enhance the reproductive health of the people with respect to preventions of unwanted pregnancies, unsafe delivery, Sexually Transmitted Infections (STIs) and Human Immune Virus (HIV) infections among others.

Despite these efforts, reports on issues of unwanted pregnancies, unsafe abortions, STIs and other sexually transmitted diseases among teenagers have remain consistently high in many parts of Nigeria. The World Health Organization (WHO) (2007) however estimates that 60 percent of all new pregnancy related issues and HIV infections occur mostly in developing countries including Nigeria. The report further noted that in these developing countries, there are about 12.8 million births among adolescents aged 15–19 and a large proportion of these pregnancies are unplanned. Malarcher (2010), and Kunnibe, Nkegbe and Mumin (2012) reported that globally there is under-utilization of reproductive health services (RHS) by adolescents. Another report by WHO (2015) shows that in Algeria, Bangladesh, Ethiopia, Indonesia, Nigeria and other developing countries, the risk of dying from unsafe abortions, HIV, STIs and other reproductive health issues is two times higher among those aged 15-19 years than women in their mid-twenties. This implies that those in adolescence appear more vulnerable to such aforementioned issues.

Adolescence is the period during which a range of actions occur in children in order to set a stage for them to attain healthy adulthood. It is a stage between childhood and adult stage. According to WHO (2001), adolescents are young people from the age of 10-19 years who are in-between childhood and adulthood and are undergoing physical, mental, social and emotional changes accompanied by an increasing definition of sexual identity and social status. The period is categorized into early adolescents (10-14 years) and late adolescents (15-19years). According to Samuel (2010), the period is generally characterized by maturity of the reproductive organs and behavioural changes with corresponding interest in sexuality and desire for sexual expression. But any unhealthy RH practice engaged by adolescents may likely affect their future reproductive health.

Reproductive health (RH) is a concept that explains all activities that will promote reproductive system and process. Reproductive health according to Abouzahr and Vaughan (2000) is an aspect of health that deals with the prevention and treatment of reproductive diseases and also supporting pregnancy and childbirth control. Kamau (2006) also view reproductive health as the ability of individuals to prevent diseases, disabilities and death from sexuality and reproduction. This implies that reproductive health is basically concern with how to ensure healthy reproductive life among individuals through prevention of diseases and all issues that impede human reproduction processes.

As a health package, reproductive health has several components. These components according to the Nigerian Federal Ministry of Health-FMoH (2001) include safe motherhood, with regards to prenatal care, safe delivery, essential obstetric care, prenatal and neonatal care, post-natal care and breast feeding; family planning; prevention and management of infertility and sexual dysfunction in both male and females; prevention and management of complications due to abortion. They also include prevention and management of reproductive tract infections especially sexually transmitted infections (STIs), including HIV and AIDS; promotion of healthy sexual maturation as from pre-adolescence, responsible and safe sex throughout the lifetime and gender equality; elimination of harmful practices such as female genital mutilation, premature marriage, and also management of infectious conditions of the reproductive system like genital fistulas, cervical cancers, and complications of female genital mutilation among others (United Nation, 2017). These components are managed through the establishment of the required reproductive health services.

Services comprise all actions that aim at satisfying or meeting a particular need. According to Kamau (2006), services are the means of providing or offering something to individual or groups to meet their desired need. By implication, reproductive health services deal with all the actions and activities aimed at ensuring the prevention and treatment of diseases, and promotion of healthy reproduction among people. Roudi-Fahimi and Ashford (2008) viewed reproductive health services (RHS) as a constellation of methods, techniques and programmes that contribute to effective reproductive health and well-being by preventing and solving reproductive health problems. Some of such services include family planning information and services; effective maternal care and safe motherhood services; prevention and management of reproductive tract infections especially sexually transmitted infections (STIs), including HIV and AIDS services (Chandra-Mouli, Lane, & Wong, 2015). Others include prevention and management of infertility services; elimination of unsafe abortion and post-abortion care services; cervix and breast cancer services and adolescent reproductive and sexual health services among others (USAID, 2015). Thus, the UNFPA as one of the United Nation's agencies helps in the promotion of sexual and reproductive health, including family

planning, comprehensive sexuality education and maternal health services in order to avert two thirds of maternal and neonatal deaths (United Nations, 2017).

The researcher was however interested in investigating female adolescents' utilization of sexuality education and prevention, treatment and management of STIs, HIV and AIDS services which are more relevant to them. Sexuality education according to the Sexuality Information and Education Council of the United States - SIECUS (2018) is a lifelong process of acquiring information and forming attitudes, beliefs, and values about sexuality. It is a type of education that provides adolescents with the knowledge, skills and efficacy to make informed decisions about their sexuality and lifestyle, skills necessary for STIs, HIV and AIDS prevention as well as gender equality (UNESCO, 2009). A study by Kalo (2006), found out that only 25%adolescents utilized sexuality education and counselling as a reproductive health service. In the same vein, Kiran, et al (2015) reported that sexuality education service utilization among adolescents was lower among female (4.3%) than males (12.5%). This lack of utilization of sexuality education could influence female adolescents' decisions on issues related to prevention and treatment of STIs, HIV and AIDS.

Prevention and treatment of STIs, HIV and AIDS generally ought to be taken seriously by both male and females alike. STIs according to Oken (2005) are those infections that are transmitting through sexual contact with an infected man or woman. Many STIs including chlamydia, gonorrhoea, hepatitis B, HIV, HPV, HSV2 and syphilis can also be transmitted from mother to child during pregnancy and childbirth (Myles, 2001). Apart from STIs which are most likely to cause reproductive health problems, HIV and AIDS also result to similar health problems (Oken, 2005). These reproductive health problems are deathly but can be prevented by female adolescents through adequate reproductive health services utilization. Unfortunately, a study by Nwosu (2006 revealed that contraceptive use and STIs prevention services and HIV counselling and testing services were underutilized by adolescents. It is therefore imperative to carry out call for further investigation on utilization of reproductive health services especially among female in-school adolescents to check if the findings are consistent or not.

Utilization is the act of putting something, for instance a service into use. According to Gazali, Muktar and Gana (2012), it is the way and manner in which people use a particular thing, product or service because of the belief that it plays a vital role in their wellbeing. Utilization of reproductive health services may prevent unwanted pregnancy and birth, prenatal and neonatal mortality, maternal mortality STIs, HIV and AIDS, as well as complications of abortion (Akinyi, 2009). Importantly, adequate and proper utilization of the various components of reproductive health services among female adolescents can promote their reproductive health. Despite this, Abajobir and Seme (2014) observed that utilization of reproductive health services by adolescents is generally low. Certain demographic variables such as age and location may however influence the use of such services by adolescents.

Age of adolescents may affect their utilization of reproductive health services among female adolescents. For example, Advocate for Youths (2005) reported that age has a great influence on utilization of health services. Most adolescent may be brought to health facilities either by their parents or guardians to seek health services, while in some places adolescents seeking reproductive health services are driven away, reason being that they may become inclined to sexual activities. An investigation by Creanga and Akol (2006) however revealed that there was no relationship between age and utilization of SRH services among adolescents in Vanuatu.

Apart from age, location could also be a strong factor in utilization of reproductive health services among female adolescents. Location according to Ezeudu (2003) refers to urban or rural setting. Stone and Ingham (2002) reported that adolescents who live in rural communities where there is less provision of RHS are socially excluded from utilizing the available services. A study byAdamu (2011) showed that place of residence was no strong predictor of utilization reproductive health services. Similarly, Ozoemena (2014) reported that there was a very low extent of utilization of sexual and reproductive health services based on location. This may be applicable to urban and rural female in-school adolescents in Enugu South LGA despite the potential consequences. To justify this claim and some of the inconsistencies in previous studies, this study was therefore aimed at determining the demographic correlates of reproductive health services utilization among female in-school adolescents in Enugu South of Enugu State. In order to generate empirical evidence to this regard, four research questions were posed:

1. What is the proportion of in-school female adolescents who utilized sexuality education service in Enugu South LGA?
2. What is the proportion of in-school female adolescents who utilized the services for prevention, treatment and management of STIs, HIV and AIDS in Enugu South LGA?
3. What is the relationship between age and utilization of selected RHS among female in-school adolescents in Enugu South LGA?
4. What is the relationship between location and utilization of selected RHS among female in-school adolescents in Enugu south LGA?

Hypotheses

The following null hypotheses were postulated to guide the study and were tested at.05 level of significance.

1. There is no significant relationship between utilization of selected reproductive health services and age among female in-school adolescents.
2. There is no significant relationship between utilization of selected reproductive health services and location among female in-school adolescents.

Method

To accomplish the aim of this study, the correlational survey research design was adopted for the study. The population for the study comprised of all the 13, 941 in-school female adolescents in secondary school in Enugu-South of Enugu State. A sample of 418 female in-school adolescents participated in the study. This was in line with Nwana's (1990) rule of thumb which states that, when the population of a study is in many thousands, 2 to 5 percent of it can be considered a representative sample of that population. The sample was drawn from the population for the study through multi-stage procedure. Stage one involved the use of stratified sampling in selecting 17 secondary schools (10 from urban areas and 7 from rural areas). In the second stage, proportionately stratified sampling technique was used to draw 284 female students from urban schools and 111 students from rural schools with at least 4 female students from each class, resulting to a total number of 418 students. In the third stage, 10 female Muslim students (ten percent of the sample) were purposively selected, while the remaining 385 (ninety percent of the sample) students were Christians. Researchers-designed instrument titled; Demographic Correlates of Reproductive Health Services Utilization Questionnaire (DCRHSUQ) was used for data collection. The instrument was face-validated by five experts; four from the Department of Human Kinetics and Health Education and one from Measurement and Evaluation unit of Science Education Department. The reliability of the instrument was ascertained using Cronbach Alpha and the index of 0.77 obtained was adjured adequate for the study. Four hundred and eighteen (418) copies of the questionnaire were distributed to the in-school female adolescents by the researcher and two research assistants but only 395 were duly filled and retrieved. This represents 94.50 per cent return rate. Data gathered were analyzed using frequencies and percentages to answer research questions 1 and 2 while Pearson's product moment correlation coefficient was used to answer research questions 3 and 4. In addition, Pearson's Chi-square analysis was used to test the two null hypotheses at 0.05 set as the level of significance.

Results

The findings of the study are hereby presented in Tables.

Table 1:

Proportion of In-school Female Adolescents who Utilized Sexuality Education Services (n = 395)

S/N	Items	Utilized		Not utilized	
		F	%	f	%
1	Receive counselling on sexual relationship	114	28.9	281	71.9
2	Receive counselling services on appropriate sexual behaviour	127	32.2	268	67.8
3	Making use of information on human sexuality	105	26.6	290	73.4
4	Practice good menstrual hygiene	42	10.6	353	89.4
5	Apply several skills to overcome sexual desire	94	23.8	301	76.2
	Cluster %		**24.3**		**75.7**

Data in Table 1 showed that a low proportion (24.3%) of in-school female adolescents utilized sexuality education services. The result showed that 10.6% practiced good menstrual hygiene, while 23.8% applied several skills to overcome sexual desire. Furthermore, 26.6% made use of information on human sexuality, 28.9% received counselling on sexual relationship while 32.2% received counselling services on appropriate sexual behaviour.

Table 2:
Proportion of In-school Female Adolescents who Utilized Prevention and Treatment of STIs, HIV and AIDS Services (n = 395)

S/N	Items	Utilized		Not utilized	
		F	%	f	%
16	Go for screening on STIs and HIV	146	37.0	249	63.0
17	Acquire condoms for prevention of STIs	75	19.0	320	81.0
18	Utilize condoms in order to prevent STIs, HIV and AIDS	83	21.0	312	79.0
19	Receive treatment on STIs including HIV and AIDS	106	26.8	289	73.2
20	Utilize antiretroviral therapy for HIV and AIDS	30	7.6	365	92.4
	Cluster %		**22.8**		**77.2**

Data in Table 2 showed that low proportion (22.8%) in-school female adolescents utilized prevention and treatment of STIs, HIV and AIDS services. The result showed that only 7.6% utilized antiretroviral therapy for HIV and AIDS while only 19.0% acquired condoms for prevention of STIs, with only utilizing condoms in order to prevent STIs, HIV and AIDS among others.

Table 3:
Relationship between Age and utilization of Reproductive Health Services by Adolescents (n = 395)

s/n	Items	φ	*p-value*	Decision
	Sexuality Education Services (SES)			
1.	Receive counselling on sexual relationships	-.016	.746	WR
2.	Receive counselling services on appropriate sexual behaviour	-.016	.746	WR
3.	Make use of information on human sexuality	.120	.017	WR
4.	Practice good menstrual hygiene	.001	.985	WR
5.	Apply several skills to overcome sexual desire	-.013	.796	WR
	Cluster Value	**-.103**	**.040**	**WR**
	Prevention and Treatment of STI/HIV Services (PTSTI/HIV)			
6.	Go for screening on STIs and HIV	.347	.005	MR
7.	Acquire condoms for prevention of STIs	.124	.014	WR
8.	Utilize condoms in order to prevent STIs, HIV and AIDS	.029	.564	WR
9.	Receive treatment on STIs including HIV and AIDS	.311	.005	WR
10.	Utilize antiretroviral therapy for HIV and AIDS	.010	.835	WR
	Cluster Value	**.311**	**.005**	**MR**
	Overall Value	**-.146**	**.004**	**WR**

Key for Interpretation
±.00-.29 = None (.00) to weak relationship (NR or WR)
±.30-.59 = Moderate relationship (MR)
±.60-.99 = Strong Relationship (SR)
Source: Jackson (2009)

Results in Table 3 showed a correlation value (φ = -.146, p = .004), which implies a weak negative relationship between age and utilization of reproductive health services by female adolescents, since φfalls between ±.00-.29. The table also shows that there was a weak negative relationship between age and utilization of sexuality education services (φ = -.103, p = .040), however, a moderate positive relationship between prevention and treatment of STI/HIV Services (φ = .311, p = .005) among in-school female adolescents.

Table 4:
Relationship between school location and utilization of Reproductive Health Services by Adolescents (n = 395)

s/n	Items	φ	*p-value*	Decision
	Sexuality Education Services (SES)			
1.	Receive counselling on sexual relationships	.099	.049	WR
2.	Receive counselling services on appropriate sexual behaviour	.064	.204	WR
3.	Make use of information on human sexuality	-.057	.255	WR
4.	Practice good menstrual hygiene	.077	.128	WR
5.	Apply several skills to overcome sexual desire	.100	.046	WR
	Cluster Value	**-.035**	**.490**	**WR**
	Prevention and Treatment of STI/HIV Services (PTSTI/HIV)			
6.	Go for screening on STIs and HIV	.117	.020	WR
7.	Acquire condoms for prevention of STIs	.015	.760	WR
8.	Utilize condoms in order to prevent STIs, HIV and AIDS	-.023	.646	WR
9.	Receive treatment on STIs including HIV and AIDS	.150	.003	WR
10.	Utilize antiretroviral therapy for HIV and AIDS	.030	.547	WR
	Cluster Value	**.150**	**.003**	**WR**
	Overall Value	**.132**	**.005**	**WR**

Results in Table 4 showed the overall correlation value (φ = .132, p = .005), which means there was a weak positive relationship between school location and utilization of reproductive health services by female adolescents, since φ falls between ±.00-.29. Particularly, the result showed that there was a weak negative relationship between school location and utilization of sexuality education services-SES (φ = -.035, p = .490), and a weak positive relationship between school location and prevention and treatment of STI/HIV Services (φ = .150, p = .003) among in-school female adolescents.

Table 5:
Pearson Chi-Square Analysis Testing the Null Hypothesis of No Significant Relationship between Age and Utilization of Reproductive Health Services by In-School Female Adolescents

		Utilization of RHS							
		Utilized		Not Utilized					
Value	N	O	(E)	O	(E)	X^2	df	sig	Decision
Age									
10 – 14years	151	3	(9.9)	148	(141.1)				
						8.396	1	.004	Accepted
15 – 19years	244	23	(16.1)	221	(227.9)				

*significant p < .05

Result in Table 5 showed that there was a significant relationship (χ^2= 8.396, df= 1, p-value= .004) exist between age of in-school female adolescents and utilization of RHS. This implies that age of in-school adolescents is a strong correlate of factor of RHS utilization.

Table 6:
Pearson Chi-Square Analysis Testing the Null Hypothesis of No Significant Relationship between School Location and Utilization of Reproductive Health Services by In-School Female Adolescents

		Utilization of RHS							
		Utilized		Not Utilized					
Value	N	O	(E)	O	(E)	X^2	Df	sig	Decision
Location									
Urban	284	19	(18.7)	265	(265.3)				
						.019	1	.546	Not Accepted
Rural	111	7	(7.3)	104	(103.7)				

*significant p > .05

Result in Table 6 showed that the was no significant relationship (χ^2= .019, df= 1, p-value= .546) between location of in-school adolescents and utilization of RHS. This implies that location of in-school female adolescents in Enugu South LGA is not a correlate of RHS utilization.

Discussion

The findings in Table 1 revealed that low proportion (24.3%) of in-school female adolescents utilized sexuality education services. This finding of low proportion of in-school female adolescents who utilized sexuality education services was expected and therefore not surprising because there is lack of sexuality education for adolescents both at home and at the secondary school level. The finding is in line with the study of Kalo (2006) who found out that only 25%adolescents utilized sexuality education and counselling as a reproductive health services while a higher production of adolescent did not utilize such services. The findings also add credence to the study by Kiran, et al (2015) which reported that sexuality education service utilization among adolescents was lower among female (4.3%) than males (12.5%). This low utilization among female adolescents could be due to lack of information about the availability of such services, fear of being labelled as a spoiled girl, shyness, peer influence, lack of confidentiality in the services, cultural beliefs and values held by adolescent's families among others. This may deprive them the opportunities of seeking sexual education with the fear of exposing them to promiscuous sexual lifestyle. This is obvious in the manner at which most Nigerian families bring up their children especially the female ones.

The findings in Table 2 revealed that low proportion (22.8%) in-school female adolescents utilized prevention and treatment of STIs, HIV/AIDS services. This finding of low proportion of utilization of services for the prevention and treatment of STIs, HIV/AIDS was expected and therefore was surprising because in-school adolescent were assumed to be adamant about such services. This finding is consistent with the study by Nwosu (2006) which revealed that contraceptive use and STIs prevention services and HIV counselling and testing services were underutilized by adolescents. Nonetheless, the finding disagreed with the result by Senafikish, Zelalem and Digsu (2012), who reported that among sexually experienced adolescents, 68.1 per cent and 88.4 per cent of adolescents utilized contraceptive methods at their first time of sexual intercourse and VCT service respectively. These high proportions of utilization could be attributed to high level of awareness and sensitization on the need to utilize such services by people of various age categories. This may have predisposed the experienced or well-informed adolescents to the utilization of such services as discovered in the study.

The findings in Table 3 revealed a weak negative relationship ($\boldsymbol{\varphi}$ = -.146, p = .004) was found between age and utilization of reproductive health services by female adolescents. Notwithstanding, the finding in Table 5 revealed a significant relationship (X^2= 8.396, df= 1, p-value= .004) between age of in-school female adolescents and utilization of RHS. This implies that age is a strong correlate of utilization of reproductive health services. This finding was anticipated and therefore was not surprising, because in ordinary sense, one can expect that young girls who are in their late adolescence should be more experienced and predisposed to the utilization of reproductive health services than those who are in their early adolescence stage which could be the reflection of this finding. However, the finding was in disagreement with the study by Creanga and Akol (2006) which

revealed that there was no relationship between age and utilization of SRH services among adolescents in Vanuatu. Similarly, Ozoemena (2014) reported that there was very low extent of utilization of sexual and reproductive health services based on age.

The findings in Table 4 revealed a weak positive relationship (φ = .132, p = .005) was found between school location and utilization of reproductive health services by female adolescents. This finding was not anticipated and therefore was surprising, because in ordinary sense, one can anticipate that adolescents who are living in the urban areas be more predisposed to the utilization of reproductive health services because they are more likely to obtain information through mass media, posters, television than their counterparts in the rural areas. Nevertheless, the finding of this study is consistent with the study by Adamu (2011) which showed that place of residence was no strong predicators of utilization reproductive health services. Furthermore, the finding of this study is in concordance with the study by Ozoemena (2014) which showed that there was a very low extent of utilization of sexual and reproductive health services based on location. The finding in Table 6, revealed no significant relationship (X^2= .019, df= 1, p-value= .546) between location of in-school adolescents and utilization of RHS.

Conclusion

Based on the findings and discussions of the study, it was concluded that low proportion of in-school female adolescents utilized sexuality education, and prevention and treatment of STIs, HIV/AIDS services. It was concluded that there seems to be a weak negative relationship between age and utilization of reproductive health services by female adolescents. While a weak positive relationship exists between school location and utilization of reproductive health services by female adolescents. Furthermore, it was concluded that there seems to be a significant relationship between age of in-school female adolescents and utilization of RHS, whereas there is no significant relationship between school location and utilization of RHS by in-school female adolescents.

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