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Research Article

Risk Factors Associated With Unwanted Pregnancy and Reproductive Health Education Needs of Adolescent School Girls in Amassoma Community, Bayelsa State

Efeunu, E.N[1] and Adika, V.O*[2]

[1]Postgraduate Student Department of Community Health Nursing, Faculty of Nursing, Niger Delta University, Wilberforce- Island, Bayelsa State, Nigeria
[2]Lecturer Department of Medical-Surgical Nursing, Faculty of Nursing Niger Delta University, Niger Delta University, Wilberforce-Island, Bayelsa State, Nigeria

Abstract: Unwanted pregnancy constitutes a huge embarrassment for parents and community, especially when it concerns adolescent girls of school age. Many factors put them at risk and consequently the need for sex or reproductive health education. This study aims to determine the risk factors associated with unwanted pregnancy and sex education needs of adolescent school girls in Amassoma community, Bayelsa state. A descriptive cross-sectional survey design was utilized. Using a multistage sampling technique involving 3 steps and by simple random sampling, 170 respondents were selected. Data was collected using a self-structured close-ended questionnaire and questions analysed with statistical package for social sciences (SPSS) version 21 in the form of frequency distribution tables, and percentages. The results of the study indicate that a high number of 146(89%) of the respondents are linked with high-risk factors towards unwanted pregnancy. Given that the socio-demographic variables and overall risk factors for age, grade level, religion, marital status, residence and guardians socio-economic factors were all statistically not significant respectively (p =0.306; p =0.972, p =0.725; p = 0.211; p = 0.837 and p = 0.211). Similarly, a high rate of reproductive education needs 121(73.8%) among respondents on sex education needs were not met. Evidenced from analysis of results the government, NGO's, schools, hospitals, the community, families and parents are recommended to pay keen attention to the risk factors and reproductive or sex education needs of the adolescent girls.
Keywords: adolescents, unwanted pregnancy, reproductive health education, schoolgirls.

INTRODUCTION

Adolescents are individuals in the second decades of life, aged 10–24 years, the phase that separates early childhood from adulthood, a period that requires special attention and protection (UNICEF, 2011; 2019). During this stage, they are exposed to a great number of risks factors as they rapidly undergo physical, emotional, psychological, and physiological changes.

Globally, about 16 million adolescent girls between 12 and 19 years give birth each year, which is approximately 1 in every 5. In the poorest regions of the world, this figure rises to one in three girls, and a further million become mothers before the age of 15 years, some as young as 12 years (Nove, Matthews, Neal, & Camacho, 2014).

It has also been realized that while the global proportion of adolescent pregnancies has reduced over time, countries in West and Central Africa have the largest proportion of women who give birth during adolescence (The United Nations Population Fund [UNFPA], 2013).

Young mothers are at heightened risk for mental health disorders such as depression in comparison to women who bear children at an older age (Rosenberg, Pettifor & Miller, 2015). Girls who give birth during adolescence have a greater risk of death than women who have children in their early 20s, and their babies tend to have lower birth weight, more health complications, and greater risk of neonatal death (Chandra-Mouli, Svanemyr, Amin, Fogstad, Say, Girard &Temmerman, 2015).

In Africa, there are many challenges in promoting adolescent reproductive health. According to

Yakubu, and Salisu (2018), the reasons for such a high rate of teenage pregnancies are of multiple facets including such factors as poor or absence of sexual education in schools and at homes, sub-standard healthcare systems, and the inadequate supply of contraceptives to teenagers for contraception and family planning services.

Large and variable numbers of unwanted adolescent pregnancies are yet to be accounted for, and as such, these negative consequences keeps repeating it as many other school-going girls follow these trends. Additionally, Oyedele (2017) cited the National population commission NPC that the number of teenage mothers in Nigeria may move up to 60million by 2015 from 20million in 2013.

Thus, famous scholars in this area of speciality have stated that aggressive steps need to be taken to stop the trend, in particular, the need for relevant, good, and timely reproductive health education. Reproductive health education as an important aspect of adolescent education provides young people with the necessary information to make informed choices regarding their sexual health – (Sexuality Information and Education Council of the United States (SIECUS), 2012; Future of Sex Education [FSE], 2012).

It is a shared responsibility of the local government leaders and state leaderships, parents, teachers, the community, school administrators, with the attention of all entities to support the development of a sexually healthy youth (Corngold, 2010; Sex Information and Education Council of Canada [SIECCAN], 2010).

According to Future of Sex Education (FSE) Initiative (2012), there are clear guidelines and standards to assist in specific policies on sexual health education with the development and/or evaluation of programs to ensure that schools "design and develop sexual health education that is planned, sequential, and part of a comprehensive school health education approach" p.6.

Interest in sexuality is part of adolescence, and changes in behaviour or health outcomes are modest this we must accept in Nigeria in spite of religious and cultural teachings since sex education is more effective at improving knowledge and self- interest (Haberland & Rogow, 2015). Delivering curricula at school helps programs reach a concentrated group of adolescents and offers a source of sexual health information to students who may be reluctant to ask their parents or teachers.

The problem is such that unwanted pregnancy remains a major social problem facing the adolescents of today. World health statistics (WHS, 2013) noted that Nigeria is one of the leading countries with unwanted adolescent pregnancy. In Nigeria, sexual issues are not discussed freely, so is the numbers of children in a family forbidden to be counted in some areas. Advocates for sex education in schools have met with stiff resistance from religious leaders who say that such educations would promote immorality. The society in Nigerian is such that she ignores the whole masses of adolescents who are already sexually active but preaches abstinence. As a result, we deem it fit to consider sex education programs in the mitigation of unwanted pregnancies among adolescent that may help alleviate suffering among school-going girls in the Amassoma community, Nigeria. The ultimate goal of sexual health education is to provide a foundation of support for youth to mature into sexually healthy adults (SIECUS, 2011).

The state of education and service provision relating to adolescents and sex, sexualities and sexual health is currently a major national challenge (Evan, 2013). A literature review indicates few studies have been conducted in this special area, with unwanted pregnancies still on the rise among adolescents, particularly the school going girls within the Amassoma community. Nurses, who work in the compulsory educational division and direct contact with these young adolescent girls, obviously experience the failures in meeting the academic needs as well as behavioural and attitude of the systems. This study, therefore, seeks to examine the risk factors associated with an unwanted pregnancy and reproductive health education needs of adolescent school girls in the Amassoma community.

Objectives of the Study
The Specific Objectives of This Study are as Follows:
- To identify the risk factors associated with unwanted pregnancy among adolescent school girls in Amassoma community.
- To determine the reproductive health education needs among adolescent school girls in Amassoma community.

Research Questions
1. What are the risk factors associated with unwanted pregnancy, among adolescent school girls in Amassoma community?
2. What are the reproductive health educational needs among adolescent school girls in Amassoma community?

RESEARCH METHODOLOGY
Research Design:
A descriptive cross-sectional survey design was utilized to determine the risk factors associated with unwanted pregnancies and reproductive health educations needs of adolescent school-going girls in the Amassoma community.

Target Population

The population is all school-going girls while the target population for this study was adolescent school girls in Senior Secondary School Years: 1-3(SSS1 to SSS3) in public schools in Amassoma community. These were mostly adolescent school-going girls in the Amassoma community and willing to participate.

Study Setting

The setting of the study is in the Amassoma Community, which is an Ijaw speaking community in Southern Ijaw Local Government Area of Bayelsa State, in the Niger Delta area of Nigeria. It is made up of 22 compounds with one paramount ruler that oversees the activities of the other chiefs and found on the Wilberforce-Island along the Yenagoa-Amassoma Road. Within Amassoma community is also the Niger Delta University with the College of Health Sciences at the border end of the community and within it is a general hospital.

Sample and Sampling Procedure
Sample Size Calculation:

The sample for this study was made up of adolescent school-going girls in the Amassoma community, Bayelsa State, Nigeria. Who was information rich and capable of providing the needed information for solutions to the research questions. The sample size for this study was calculated using the following simple formula for descriptive studies as stated below:

$$n = (Z2 [P (1-P)])/d2 \text{ Or } Z^2 p q/ d^2$$

Here,

n = Number of sample

Z = Statistic for level of confidence

$Z2$ =Standard normal variate at 5% type 1 error is 1.96

q = 1- p = 1- 0.1 = 0.9

P= Expected proportion or prevalence in the population, in 10% = 0.10

d= Absolute error or precision at 5% =0.05

Hence,

n= $[1.962 \times 0.1 \times (1 - 0.1)] /0.052$

n= 0.345744/ 0.0025

n =138.29 =138

Attrition rate of 20% = 0.20 x 138 = 27.6

Therefore Sample size (S) = 138 + 28 = 166.

Hence, 170 respondents were used for this study.

Sampling Technique

A Multistage Sampling Technique Involving 3 Steps Was Used:
1. Stratifying the classes into SSS1, SSS2 and SSS3
2. Purposive selection of only girls from each class

3. Randomly picking each girl from each class and;

This was achieved by using a simple random sampling method to select the girls included for the study. This was by making each girl to pick from papers rolled up containing writing numbers one to ten and only girls who picked even numbers where included.

Inclusion Criteria

The inclusion criteria include:

Adolescents school girls who reside in Amassoma community

Adolescent school girls who are willing to participate

Exclusion Criteria

Have been pregnant before or have had a child while attending school

If they cannot speak and write in English language

Instrumentation used for Data Collection

In this study, a self-structured questionnaire with closed-ended questions focusing on the research objectives was used for data collection. A predefined series of questions were used to collect the information from the adolescent school-going girls, who were given a list of predetermined responses from which to choose their answers. The questionnaires were made up of the followings: Section A: Demographic data; Section B: Factors contributing to schoolgirl unwanted pregnancy and Section C: Sexual and Reproductive Health Education Needs.

The questionnaire was in English as the respondents were familiar with the language. The researcher considered a questionnaire relevant to this study because some of the questions might be embarrassing to respondents if they were interviewed face to face. The questionnaire provided privacy for their opinions. Furthermore, biases were prevented because the respondents did not have to face an individual but completed the questionnaires themselves.

Validity of Instrument

The face validity and content validity of the instruments was ascertained by comparing their items with the existing related literature and the research objectives/questions. Besides, a copy of each questionnaire was made available to the researcher's supervisor and another research expert to determine its face and content validity. The comments and suggestions received were used to modify the final draft of the instrument before it is finally administered.

Reliability of the Instruments

The structured questionnaire was subjected to a test re-test reliability study that was conducted among 20 respondents in the target population, which was

selected from Amassoma community. These respondents did not participate in the main study. The data collected was analyzed and the reliability coefficient was computed. A value of 0.70 and above was accepted because it indicates the reliability of the questionnaire.

Ethical Consideration

A letter of introduction was collected from the Faculty of Nursing, Niger Delta University the Institutional Review Body to the selected schools and permission to conduct the research study was obtained from the various authorities in charge of the schools as gatekeepers. This was to enable the researchers to gain access to the participants and information needed for the study. Informed consent was sought as participants were fully informed of the research aims, and potential benefits and disadvantages. Participants were given informed consent form to sign after they were fully informed about the study. Participants were assured that only information related to the study will be collected and not interfering with the subject's privacy. The researcher ensured anonymity by omitting names. The researchers also maintained scientific honesty by adhering and reporting the results without any fabrication but with objectivity and integrity.

Procedure for Data Collection

The adolescent school-going girls were all met at their various classrooms i.e., SSS1, SSS2 and SSS3 respectively during the lunch break period after several visits. A total of 170 questionnaires were able to be administered after several visits. The schoolgirls were usually organized, well seated and quiet in the classrooms where they all gathered before administration of the questionnaires. The investigators assisted the respondents during the data collection to clarify questions that the respondents did not clearly understand during the administration of the questionnaires to the respondents. The questionnaires were immediately retrieved from the respondents when they were done with answering all the questions. In all, a total of 170 questionnaires were administered and retrieved back with the assistance of two class teachers whenever the investigators were present to collect data.

Method of Analysis

The quantitative data obtained for the study were analyzed using a Statistical Package for Social Sciences (SPSS) version 21 will be used to analyze the data collected. Descriptive statistics in the form of frequency distribution tables, percentage and bar charts were used. Formulated hypotheses were tested using chi-square and statistical significance was set at p-value ≤ 0.05.

RESULT AND DISCUSSION

Results

The mean age of respondents was 15 years, with majority (59.8%) being between the age group of 13-15 years, followed by 37.2% respondents aged 16-18 years, and 10-12 years (1.2%). The highest proportions of 66 respondents were from SSS1, followed by 65 from SSS2 and at least 33 from SSS3. Majority respondents were mostly Christians (99.4%) and were not married (98.2%). In terms of residence, 70.1% reside with both parents while only 15.2% and 14.6% live with a single parent and relatives, respectively. More than half (58.5%) of the respondents had parents with low socioeconomic status. These findings draw attention to the need to emphasise on sex education among adolescent girls to guide them in their sexual interactions and relationships, the consequences and responsibilities.

Table 2 shows that Majority (94.5%) of the respondents knew of the occurrence of sexual intercourse among peers while 5.5% do not know. 80.5% (132) of the respondents indicated that parents discourage sexual intercourse and 86.0% also answered that culture discourages early sexual intercourse. 79.3% reported use of sex for material benefits, and 20.7% did not use sex for benefits. The result further shows that sixty 36.6% of the respondent have a family member with teen pregnancy with 35(21.3%) having mothers who had teenage pregnancies.

Adolescent pregnancy is mostly unplanned, unwanted and unfavourable. Our result found that 94.5% of respondent knew of the occurrence of sexual intercourse to be common among peers. This result may be explained or attributed to the fact that the majority of these adolescent girls all practice or are involved in early sexual activity due to peer influences making them at risk. This may be compared with a similar study conducted in Adama University among Female Students, Ethiopia, where there was 92% (Tilahun, Assefa & Belachew, 2010) but lower 75.3% for unwanted pregnancy from students who had a history of pregnancy (Nigatu, 2019).

Findings also reveal that 14% of respondents indicate culture encourages early sexual intercourse. This is in agreement with the view of Kaphagawani (2006) which indicate culture supports and encourages socio-cultural establishments to promote early sex among adolescents and so expected to be at risk of unwanted pregnancy. Similarly, according to Akalla & Jordan (2015), the cultural values and norms of mothers as a role model could be cited as a role model for early pregnancy. Implication is that there is a need for mothers to be positive mentorship and role models.

This study has shown that 20.7% reported the sale of sex for material benefits. This result aligns with an earlier study which indicate that teenage girls or adolescents indulges in sexual activity for exchange of foods, money and experiences of dating in hotels (Chen,

Wen, Flaming, Demissie, Rhoads & Walker, 2007 cited in Donatus, Sama, Tsoka-Gwegweni, & Cumber, 2018). Comparable a study in Malawi reported 66% of adolescent had accepted money or gifts in exchange for sex (Allan Guttmacher Institute, 1999).

Table 1: Socio-Demographic Characteristic of Respondents

Variable	Frequency (n= 164)	Per cent (%)
Age group (in years)		
10-12	2	1.2
13-15	98	59.8
16-18	61	37.2
19-21	3	1.8
Grade Level		
SSS 1	66	40.2
SSS 2	65	39.6
SSS 3	33	20.1
Religion		
Christianity	163	99.4
Islam	0	0.0
African Traditional Religion	1	0.6
Marital Status		
Married	3	1.8
Not-married	161	98.2
Residence		
Both Parents	115	70.1
One Parent	25	15.2
Relatives	24	14.6
Parents Socioeconomic Status		
High	1	0.6
Middle	67	40.9
Low	96	58.5

A qualitative study at Chorkor, a suburb of Accra Ghana, by Gyan (2013) indicated that out of the 55 respondents, 94% agreed that poverty influences adolescent pregnancy since most female adolescents exchange sex for gift or money.

A study by Nyovani *et al*., (2007) as cited by Boamah (2013) also indicated that female adolescents from poor families have 2.7 times the odds of being engaged in premarital sex which mostly lead to adolescent unwanted pregnancy compared to those from rich families. Also, these findings could be explained by the present circumstances we find ourselves in Nigeria, the current recessions that have affected all persons.

Results of the study further found that 36.6% have a family member with teenage pregnancy and 35(21.3%) mothers with teenage pregnancy. One of the reasons could be that of the poor values and behaviours demonstrated by family members regarding sexual risk-taking and early childbearing influences on adolescent girls attitude and behaviour since they have limited guidance at home and mentorship, which may be a preventive factor.

Table 3 shows that low risk factors towards unwanted pregnancy found among respondents. The socio-demographic variables and overall risk factors for age, grade levels, religion, marital status, residence and guardians socio-economic factors were all statistically not significant respectively (p =0.306; p =0.972, p =0.725; p = 0.211; p = 0.837 and p = 0.211).

This study found a low risk towards unwanted pregnancy among respondents, as there was no statistical association for overall risks variables. Research results have been inconsistent, for example, a study conducted in Nigeria, by Chiazor, Ozoya, Idowu, Udume & Osagise, (2017) have a contrary view that indicate socioeconomic status or background of adolescents is a stronger predictor of adolescent pregnancy. However, the difference in their study results may have been that they also included pregnant adolescents and women who dropped out of school, while our study focused on school-going girls' experiences only and were still attending school. However, this does not mean that there are no effects of risks associated with unwanted pregnancy of adolescent school-going girls, as we note by experience.

A previous study found that better knowledge on risk rather than grade levels have higher chances to predict unwanted pregnancy which is consistent with this study. On the contrary, lower educational level was associated with unplanned pregnancy. The association between grade level and risk of unwanted pregnancy,

possibly could be explained by the strict information from guidance or mothers who themselves never had an unwanted pregnancy. The findings for age and risk factors $\chi 2 = 1.049$, P = .306 was not significant. This study finding is similar to the study by Kaphagawani (2006) in which there was no significance but unwanted pregnancy increased steadily from 5% to 32.1%.

Similarly, there was no statistical association between religious affiliations nonetheless this has shown to concur with the findings of (Kaphagawan,2006) in which there was no significant difference in religious affiliation between planned and unplanned pregnancy, implying that religious affiliation had little or no influence on unwanted pregnancy.

Table 2: Knowledge and Social Factors towards Unwanted Pregnancy

Variable	Frequency (n =164)	Percent (%)
Knowledge of occurrence of sexual intercourse		
Yes	155	94.5
No	9	5.5
Parents encourage sexual intercourse		
Yes	32	19.5
No	132	80.5
Culture encourages early sexual intercourse		
Yes	23	14.0
No	141	86.0
Sex for Sale		
Yes	34	20.7
No	130	79.3
Family member and Teen pregnancy		
Yes	60	36.6
No	104	63.4
Mother and Teen Pregnancy		
Yes	35	21.3
No	129	78.7

Table 3: Socio-Demographic Variable and Overall Risk Factors

| Variable	RISK FACTORS		Test Statistic	P – value
	Low (n= 146) Freq (%)	Poor (n= 18) Freq (%)		
Age				
≤14 years	50 (92.6)	57 (43.2)	$\chi^2 = 1.049$	0.306
>14 years	96 (87.3)	37 (28.0)		
Grade Level				
SSS1	59 (89.4)	7 (10.6)	$\chi^2 = 0.056$	0.972
SSS2	58 (89.2)	7 (10.8)		
SSS3	29 (87.9)	4 (12.1)		
Religion				
Christianity	145 (89.0)	18 (11.0)	$\chi^2 = 0.124$	0.725
Others	1 (100)	0 (0.0)		
Marital Status				0.211
Married	2 (66.7)	1 (33.7)	$\chi^2 = 1.563$	
Not married	144 (89.4)	17 (10.6)		
Residence			$\chi^2 = 0.0439$	
Both Parents	102 (88.7)	13 (11.3)		0.837
Others	44 (89.8)	5 (10.2)		
Guardians socio-economic status			$\chi^2 = 0.607$	
Low				0.436
Good	87 (90.6%)	9 (9.4%)		
	59 (86.8%)	9 (13.2)		
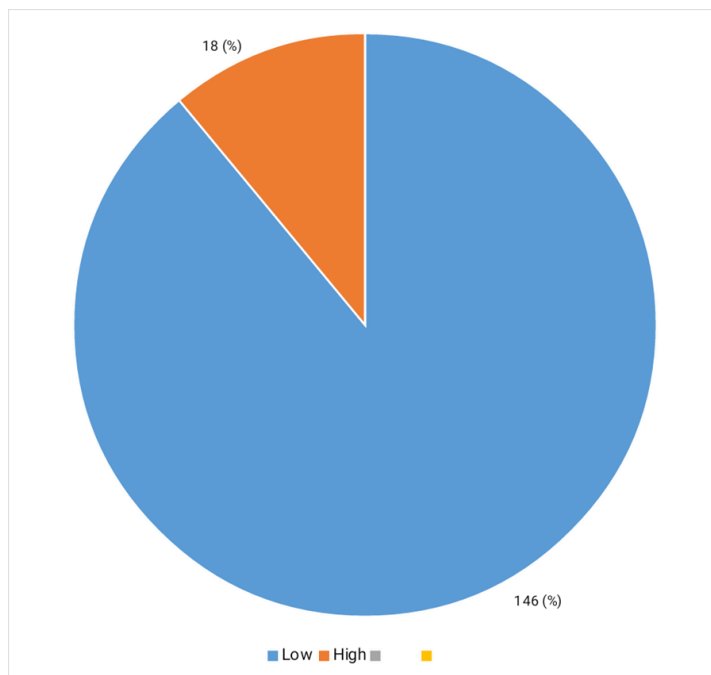
Figure 1: Risk Factors Associated With Unwanted Pregnancy

A higher proportion of 146 (89.0%), had a high-risk factors associated with unwanted pregnancy as compared to low-risk factors 18 (11.0%).

In table 4 the variables in the model accounted for between 4.3%-8.6% of the variation observed in the outcome variable (risk factors for unwanted pregnancy). The model reveals that the socio-demographic variables: Age, Grade level; Religion: being a Christian; Marital Status: being married; Residence; and Guardians Socioeconomic status all do not have high risk for unwanted pregnancy as all p- values were greater than 0.05 (P>0.05).

Age: odd ratio OR 1.66; 95% confidence interval (95% CI) 0.98-2.83, P-value 0.06>0.05; Grade levels OR 0.70, (95% CI) 0.31-1.58, P –value 0.39 P>0.05; Religion: OR 43.7; (95% CI) 0.00- 0.00, P–value1.00 P>0.05; Marital status: being married, OR 9.19; (95% CI) 0.64-132.0, P-value 0.10, P>0.05, and Residence OR 0.90; (95% CI) 0.28 -2.86, P-value 0.85 P> 0.05 and for Guardians' socio economic status OR 0.55 (95%CI) 0.19-0.27, P-value 1.59 p >0.05. All results demonstrated higher probability.

Similar study conducted in the Niger Delta of Nigeria by Isa & Gani (2012) showed that the level of education among teenage girls was significant. This is, however, contrary to the finding of this study; where the grade level of education among adolescent girls was not statistically significant.

The possible reasons for this difference may have been the comparison of those that had education with those without schooling in Isa and Gani`s study while we consider adolescent school-going girls only for this study. The implication is that education is a necessary ingredient to avoid unwanted pregnancy.

In this study the findings of the logistic regression model indicates that the age of participants was not associated with a risk for unwanted pregnancy (p=0.060), this is dissimilar to the finding by (Kaphagawani, 2016) that suggested that age of participants was a risk factor for unplanned or unwanted pregnancy (p= 0.0001). The difference may have been that comparison of planned and unplanned/ unwanted pregnancies was involved in the later.

It was expected that among those whose marital status was being married the risk for unwanted pregnancy should below. Howbeit, the finding from this study showed that being married (p= 0.10) demonstrated a higher probability. The explanation for this difference might be that respondents lacked knowledge and may have had poor counselling from peers.

Table 4: Logistic Regression Model for Determinant of Risk Factors for Unwanted Pregnancy

Predictors	B (regression coefficient)	Odds ratio	95% CI for OR Lower	Upper	P-value
Age	0.508	1.662	0.978	2.825	0.060
Grade level	-0.354	0.702	0.311	1.582	0.393
Religion					
Christian	18.764	141032343.7	0.00	0.00	1.000
Non-Christian*					
Marital status					
Married	2.218	9.189	0.640	132.008	0.103
Not married*					
Residence					
Others	-1.09	0.897	0.282	2.857	0.854
Parents*					
Guardian socioeconomic status					1.587
Low	-0.592	0.553	0.193	0.271	
Good*					

*Reference category, R^2 = 4.3% - 8.6%, CI = Confidence Interval

Table 5 shows the analysis of the sex education needs of respondents. 75.0% of the respondents had information on reproductive health services, one-quarter 25.6% knew the use of contraceptive and STI. Most of the respondents 54.3% had information on human reproductive biology, with a quarter 25.0% aware of sex education. Majority of respondents 77.4% disagree of religious emphasis on sex training since they are of the view that religion does not teach on sex education

This study revealed 123 (75%) accessed counselling in schools. This finding differs from Kaphagawani (2016) result where only 16% respondents had assessed counselling in schools but not exactly through counsellors and Nyakubega (2009) in his study showed that 29.1% source of reproductive health education contribution is from school. Possible reasons that must have influenced the differences observed may have been that in the latter two studies, the respondents may have learnt about sexuality from counsellors that were probably based in hospitals and not from school and secondly in Nyakubega reports the sources of reproductive health education was from school teachings received from biology as a subject but not from counsellors. This finding implies that unwanted pregnancy can be better achieved among these adolescent girls when counselling is done at schools before pregnancy occurs.

Further, the finding of knowledge on use of contraception in this study was 25.6% and this is similar to 31.1% reported in the study of adolescent women in antenatal clinics by (Kaphagawani, 2016). However, a gap between knowledge and use was found to be 19.5% (Malawi National Statistic Office and ICF, 2011).

With regards to knowledge on reproductive health, this study found that 54.3% know the reproductive health system. This differs from the 29.1% found by Nyakubega (2009) who said schools contributed to the source of reproductive health education. But Munthali & chimari (2003) clearly stated that adolescent girls lack basic knowledge about reproductive and sexual health.

Findings of this study indicate those who have sex education knowledge were 25%. This can be comparable to a study finding in Osun, State, Nigeria among adolescents in schools with 27% who have sex education knowledge (Ajibade, Olagunju &Oyediran, 2013). But different from the findings of Orji & Esimai (2003) that reported 60% of students have had of sexual education.

The implication is that parents should support sex education among adolescents in schools by form of provision of information about the full range of information towards human sexuality. More so it enables adolescent girls to know the consequences, sexual interactions and their responsibilities.

Our finding shows that 22.6% of the respondent adolescent girls said yes to church/ mosque teach sex education. A possible explanation for this low percentage conforms with the views of Owuamanam (2013) stance that the introduction of sex education in the formal school system in Nigeria would lead to some conflicts with religion culture norms. A study by Adu-Gyamfi (2014) in the Upper Denkyira West district in Ghana also indicated that about 83% of the respondents agree on the assertion that lack of sex education results in adolescent unwanted pregnancy.

Table 5: Sex Education Needs of Respondents

Variable	Frequency (n= 164)	Per cent (%)
Assess counselling in school		
Yes	123	75.0
No	41	25.0
Knowledge on the use of contraception		
Yes	42	25.6
No	122	74.4
Knowledge on reproductive system		
Yes	89	54.3
No	75	45.7
Sex education		
Yes	41	25.0
No	123	75.0
Church/mosque teach sex education		
Yes	37	22.6
No	127	77.4

Table 6 shows that there was statistically significant for socio-demographic variable such as age and grade level (p=0.05 and p = 0.001) respectively as p-value <0.05. There was poor sex education for respondents of ≤14 years 45(83.3%) as compared with respondents >14 years 76(69.1%). Similarly, a higher proportion of 22(66.7%) of respondents in SSS3 had a good sex education knowledge as compared with SSS1 6(9.1%), and SSS2 15(23.1%) respectively. There was no statistical association between sex education knowledge and variables like religion p=0.550; marital status not being married p=0.777; residence p=0.655; and guardians Socioeconomic status p= 0.253 all p-values were greater than 0.05 (p>0.05).

This result findings show a statistical significant for socio-demographic variable for age (p =0.050) on sex education knowledge. This is in concordance with the finding of Kumar *et al*., (2017) that indicates age to be higher significant on Knowledge of sex education among adolescents (p<0.001). Furthermore, the finding of this study similarly show significant for socio-demographic variable such as grade level (class) (p=0.001) on sex education knowledge. This was dissimilar to finding of Kumar *et al*., (2017) which P-value was 0.065. However, Kumar and colleague found socio-demographic variable for socio status to be significant (p=0.001) this is different from the result of this study where p-value was 0.253. One likely reason for the difference observed may have been in our study was only among adolescent girls while Kumar *et al*., had both genders.
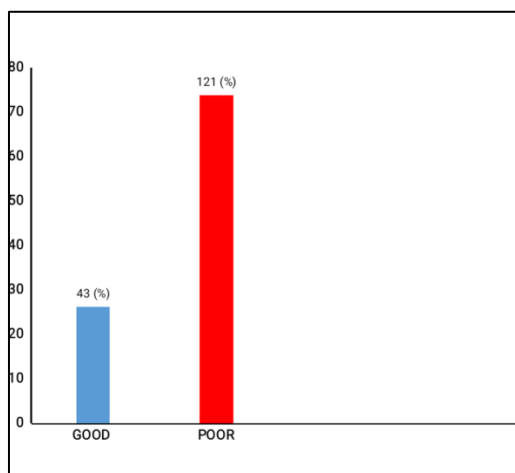

Figure 2: Overall Sex Education Knowledge of Respondents

Frequency (%): A higher proportion of 121 (73.8%), had a poor knowledge of sex education as compared to good knowledge 43 (26.2%).

Table 6: Socio-Demographic Variable and Overall Sex Education Knowledge

Variable	SEX EDUCATION KNOWLEDGE		Test Statistic	P – value
	Poor (n= 121) Freq (%)	Good (n= 43) Freq (%)		
Age				
≤14 years	45 (83.3)	9 (16.7)	$\chi^2 = 3.798$	0.050
>14 years	76 (69.1)	34 (30.9)		
Grade Level				
SSS1	60 (90.9)	6 (9.1)	$\chi^2 = 38.249$	0.001
SSS2	50 (76.9)	15 (23.1)		
SSS3	11 (33.3)	22 (66.7)		
Religion				
Christianity	120 (73.6)	43 (26.4)	$\chi^2 = 0.358$	0.550
Others	1 (100.0)	0 (0.0)		
Marital Status				0.777
Married	2 (66.7)	1 (33.7)	$\chi^2 = 0.080$	
Not married	119 (73.9)	42 (26.1)		
Residence			$\chi^2 = 0.200$	
Both Parents	86 (74.8)	29 (25.2)		0.655
Others	35 (71.4)	14 (28.6)		
Guardians socio-economic status			$\chi^2 = 1.306$	0.253
Low	74 (77.1%)	22 (22.9%)		
Good	47 (69.1%)	21 (30.9%)		

Implication for Further Study

During the review of existing literature, it became clear that since several studies have been carried out in this area further research on the reproductive health education needs of adolescents in Nigeria is desirable. When it comes to sexual and reproductive health issues, it is especially important to produce research examining the viewpoints, attitudes, and levels of knowledge of the adolescent, an area where there is a significant knowledge gap.

Further research should produce the data and knowledge needed to provide a good background for policymakers and governments officials determining resource priorities and developing policies in their efforts to prevent future unwanted pregnancies in adolescents.

The study reveals that lack of reproductive health services designed for youth is contributing to increase unwanted adolescent pregnancy. Data shows that communities are in general reluctant to provide sex education to adolescents as they culturally believe that it would increase sexual activity among adolescents. The poor health facilities and few and untrained health personnel in a large country with extreme poverty given the big country of Nigeria. Health systems need to be able to respond to the special sexual and reproductive health needs of adolescents. Skilled health workers need to be able to provide a range of youth-friendly services in outpatient and other clinical settings that could help in preventing unwanted adolescent pregnancy within

the community, inculcating sex education into the school's curriculum can also play a role.

Limitations of the Study

It was not easy to access the students as they were either having classes, so it was during their recess, or break period so several visits were made before obtaining the required sample size. It was very rigorous and time-consuming collecting the data as the respondents could not read and understand the questionnaires, most of the questions had to be explained. It was observed that the students may not completely have been all truthful in answering some of the questions.

CONCLUSION

The study was conducted to determine the risk factors associated with unwanted pregnancy and the reproductive health education needs among adolescent school-going girls in Amassoma community. One of the significant conclusions to deduct from this study is that preventing unwanted adolescent pregnancy is a complex issue influenced by many external factors such as the risk factors that predispose these young school girls to unwanted pregnancy and secondly, that their reproductive health education needs were never met. To meet this reproductive health education needs and proffer improvement in the adolescent reproductive health situation in Nigeria needs action beyond measures in schools, communities, the health sector, and the society at large. However, we assume that we simply expand the reproductive health services to make

enough difference for many of the most disadvantaged adolescent girls. Similarly, there is a need for comprehensive multi-sector investments that requires changing or working around several socio-cultural norms that promote negative health outcomes. Also, the areas of gender inequality and gender discriminative norms that restrict contraceptive use, and the cultural expectations to marry and bear children in early adolescence. Thus, changes are needed in the prevention of unwanted pregnancy and its outcomes at several structural levels, from the government to the communities, the religious institutions and as well as in families.

Recommendations

Based on the findings of this study the following recommendations are specified:

An important recommendation that pertain to this study is to make provision for school fees, uniforms and toiletries as a major incentive for school attendance which may facilitate and lower the risk factors of unwanted pregnancies and as well raise the hope for the number of these adolescent school girls to complete their schools.

Again the government should be saddle with the responsibility of making available reproductive health educations for these vulnerable girls to acquire knowledge through trained teachers and health workers. Lastly, communities, families and parents should see that they become an instrument of change and teach the girls the needed sex education at home and school.

Since this study is a preliminary for further studies as there are a lot of variables to be researched under adolescent pregnancy; the researcher, therefore, suggests the following:
1. Interventional strategies in the prevention of unwanted pregnancies among adolescents
2. Inclusion of comprehensive sex education programmes in schools curriculum.

REFERENCES

1. Adu-Gyamfi, E. (2014). Assessing the effect of teenage pregnancy on achieving universal basic education in Ghana: A case study of Upper Denkyira West District. *Journal of Education and Practice, 5*(17), 46–60.
2. Ajibade, B.L., Olagunju, R.O., & Oyediran, G. (2013). Knowledge and Opinion toward Sex Education among Selected Secondary School in Ejigbo Local Government Area, Osun State, Nigeria. *Journal of Nursing and Health Science. 2*(1), 05-08.
3. Akella, D., & Jordan, M. (2014). Impact of social and cultural factors on teenage pregnancy. *Journal of Health Disparities Research and Practice*, 8(1), 3.
4. Allan Guttmacher Institute. (1999). Teen sex and pregnancy. *Retrieved 25 Nov. 2019 from http://www.guttmacher.org/pubs/fb_teen_sex.html*
5. Ayalew, M., Nigatu, D., Sitotaw, G., & Debie, A. (2019). Knowledge and attitude towards sexual and reproductive health rights and associated factors among Adet Tana Haik College students, Northwest Ethiopia: a cross-sectional study. *BMC research notes*, *12*(1), 80.
6. Boamah, E. A. (2012). Sexual behaviours and contraceptive use among adolescents in Kintampo, Ghana. *Open Access Journal of Contraception* (5), 7-15.
7. Chandra-Mouli, V., Svanemyr, J., Amin, A., Fogstad, H., Say, L., Girard, F., & Temmerman, M. (2015). Twenty years after International Conference on Population and Development: where are we with adolescent sexual and reproductive health and rights?. *Journal of Adolescent Health*, *56*(1), S1-S6.
8. Chen, X. K., Wen, S. W., Fleming, N., Demissie, K., Rhoads, G. G., & Walker, M. (2007). Teenage pregnancy and adverse birth outcomes: a large population based retrospective cohort study. *International journal of epidemiology*, *36*(2), 368-373.
9. Chiazor, A. I., Ozoya, M. I., Idowu, A. E., Udume, M., & Osagide, M. (2017). Teenage Pregnancy: The Female Adolescent Dilemma. *International Journal of Science Commerce and Humanities*, *5*(1), 70-82.
10. Corngold, J. (2011). Misplaced priorities: Gutmann's democratic theory, children's autonomy, and sex education policy. *Studies in Philosophy and Education*, *30*(1), 67-84.
11. Donatus, L., Sama, D. J., Tsoka-Gwegweni, J. M., & Cumber, S. N. (2018). Factors associated with adolescent school girl's pregnancy in Kumbo East Health District North West region Cameroon. *The Pan African medical journal*, *31*,138.
12. Evans, D. T. (2013). Promoting sexual health and wellbeing: the role of the nurse. *Nursing Standard*, *28*(10).
13. Future of Sex Education Initiative. (2011). National sexuality education standards: Core content and skills, K-12. [Special Report]. *Retrieved from http://www.futureof sexed.org/documents/josh-fose-standards-web.pdf*
14. Gyan, C. (2013). The effects of teenage pregnancy on the educational attainment of girls at Chorkor, a suburb of Accra. *Journal of Educational and Social Research*, *3*(3), 53.
15. Haberland, N., & Rogow, D. (2015). Sexuality education: emerging trends in evidence and practice. *Journal of adolescent health*, *56*(1), S15-S21.
16. Ayuba, I. I., & Gani, O. (2012). Outcome of teenage pregnancy in the Niger delta of

Nigeria. *Ethiopian journal of health sciences*, *22*(1), 45-50.

17. Kaphagawani, N. C., & Kalipeni, E. (2017). Sociocultural factors contributing to teenage pregnancy in Zomba district, Malawi. *Global public health*, *12*(6), 694-710.

18. Kumar, R., Goyal, A., Singh, P., Bhardwaj, A., Mittal, A., & Yadav, S. S. (2017). Knowledge attitude and perception of sex education among school going adolescents in Ambala District, Haryana, India: a cross-sectional study. *Journal of clinical and diagnostic research: JCDR*, *11*(3), LC01.

19. Malawi National Statistical Office & ICF Macro. (2011). Malawi demographic and health survey 2010. Zomba: *Retrieved 26 Nov. 2019 from http://dhsprogram.com/pubs/pdf/FR247/FR247.pdf*

20. Munthali, A. C. (2003). *Adolescent Sexual and Reproductive Health: A Synthesis Report for Malawi: a Report*. University of Malawi, Centre for Social Research.

21. Nove, A., Matthews, Z., Neal, S., & Camacho, A. V. (2014). Maternal mortality in adolescents compared with women of other ages: evidence from 144 countries. *The Lancet Global Health*, *2*(3), e155-e164.

22. Nyakubega, P. (2010). Factors associated with adolescent pregnancies among secondary school students. a study from Tanga-Tanzania. *Dar Es Salaam Medical Students' Journal*, *16*(1), 31-34.

23. Madise, N., Zulu, E., & Ciera, J. (2007). Is poverty a driver for risky sexual behaviour? Evidence from national surveys of adolescents in four African countries. *African journal of reproductive health*, *11*(3), 83-98.

24. Orji, E. O., & Esimai, O. A. (2003). Introduction of sex education into Nigerian schools: the parents', teachers' and students' perspectives. *Journal of Obstetrics and Gynaecology*, *23*(2), 185-188.

25. Oyedele, D. (2017). In Nigeria, Tradition And Culture Supposedly Uphold Moral Standards. In Reality, The Incidence Of Teenage Pregnancies Is Unacceptably High. *Retrieved-Https://Www.Dandc.Eu/En/Article/Nigerias-Incidence-Teenage-Pregnancies-Unacceptably-High. E-Paper No. 8 2017, 2017/08, Page 29*

26. Owuamanam, D. O., & Bankole, M. O. (2013). Family type and attitude to sexual promiscuity of adolescent students in Ekiti State, Nigeria. *European Scientific Journal*, *9*(17).

27. Rosenberg, M., Pettifor, A., Miller, W. C., Thirumurthy, H., Emch, M., Afolabi, S. A., ... & Tollman, S. (2015). Relationship between school dropout and teen pregnancy among rural South African young women. *International journal of epidemiology*, *44*(3), 928-936.

28. Sexuality Information and Education Council of Canada. (2010). Sexual health education in the schools: Questions & answers (3rd Ed.). *Canadian Journal of Human Sexuality*,18(1-2), 47-60. *Retrieved from http://www.sieccan.org/pdf/she_q&a_3rd.pdf* DOI: *https://doi.org/10.1016/j.jadohealth.2014.08.013*

29. Sexuality Information and Education Council of the United States. (2011b). Real education for healthy youth act introduced outlining a new vision for federal sex education policy. *Retrieved from http://www.siecus.org/index.cfm?fuseaction= Feature. Show Feature & feature id=2117&pageid=483&parentid=478*

30. Strasburger, V. C., Jordan, A. B., & Donnerstein, E. (2010). Health effects of media on children and adolescents. *Pediatrics*, *125*(4), 756-767.

31. Tilahun, D., Assefa, T., & Belachew, T. (2010). Knowledge, Attitude and Practice of Emergency Contraceptives among Adama University Female Students, Ethiopia. *Ethiopian journal of health sciences*, *20*(3).

32. Unfpa. (2013). The State Of World Population. 10 Facts about Adolescent Pregnancy In Sub –Saharan Africa. *Retrieved From Http://Www.Unfpa.Org/Publications/State-World-Population-2013.*

33. UNICEF. (2019). Adolescent and Youth. *Retrieved on 2nd of October, 2019 from https://www.unicef.org/adolescence/*

34. UNICEF. (2011). The State of the World`s Children 2011: Adolescence An Age of Opportunity.*Retrieved on 2nd of October, 2019 from https://www.unicef.org/sowc2011/pdfs/SOWC-2011-Main-Report_EN_02092011.pdf.*

35. World Health Statistics. (2013). World health statistics. [viwww.who.int/go/world_ health statistics] *Retrieved on 2nd of October, 2019 at https://www.unicef.org/adolescence/*

36. Yakubu, I., & Salisu, W. J. (2018). Determinants of adolescent pregnancy in sub-Saharan Africa: a systematic review. *Reproductive Health*, *15*(1), 15.