



ENVIRONMENTAL FACTORS PREDICTING UNINTENDED PREGNANCIES AMONG IN-SCHOOL FEMALE ADOLESCENTS IN RURAL COMMUNITIES IN SOUTH-SOUTH NIGERIA

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ABSTRACT: *Unintended Pregnancy is generally considered to be a high-risk event amongst adolescents due to various factors. Understanding factors predicting unintended pregnancies among in-school female adolescents can provide mechanisms for preventing unintended pregnancies and also providing youth friendly centers. In Nigeria, as a whole, unintended pregnancy among adolescents is a daunting problem. Studies have shown the prevalence of unintended pregnancy among adolescents to be 23% in the west, 36% in the southwest and 26% in the North central part of the country. It also ranges from 17% in Edo state and 6.2% in the other Niger Delta states to 49% in Abia State. The main Objective of this study is to investigate the Environmental factors predicting unintended pregnancies among in-school female adolescents in South-South Nigeria. A cross-sectional study which employed the use of quantitative methods of data collection was conducted among 239 in-school female adolescents who were selected through simple random sampling. Data was collected using a semi-structured validated questionnaire with Cronbach's Alpha that ranged from 0.705 to 0.811. Data were analysed using descriptive and inferential statistics (logistic regression, correlation and chi-square). The result showed that those with low peer influence as compared with high peer influence were 0.92 times less likely to have unintended pregnancy (Odds ratio; 0.92; CI: 0.78-1.08; p=0.27). Low media influence as compared with those with high media influence had an odds of 1.01 likelihood of unintended pregnancy (Odds ratio=1.01; CI: 0.87-1.17;p=0.007), those with low parent support as compared with those with high parent support were 0.96 times less likely to have unintended pregnancy (Odds ratio=0.96; CI: 0.81-1.14, p=0.66). The environmental factor predictor was media influence while peer influence and parents' support were not good environmental predictors of unintended pregnancy. Re-engineering media sources are needed to produce more positive and protective behaviours towards adolescent sexuality.*

KEYWORD: Adolescent, Environmental Factors, In-School Female, Predictors, Unintended Pregnancies



INTRODUCTION

Adolescence, is the transitional phase of growth and development between childhood and adulthood. The World Health Organization (WHO) defines an adolescent as ‘any person between ages 10 and 19 (WHO 2018). Puberty begins at the beginning of adolescence, which now occurs earlier than before.

Globally, 33.9% of adolescents have reported to have experienced unintended pregnancy (Bearak, et al. 2018) and it is estimated that about 16 million girls 15–19 years old give birth each year, which contributes nearly 11% of all births worldwide (WHO 2014). Unintended Pregnancy in adolescents, is generally considered to be a high-risk event because of the additional burden imposed by reproduction on a developing body. Adolescents are neither children nor adults, but are in transition to adulthood and they constitute a high-risk group often highlighted in public debates (Ajala 2016).

According to Darroch, et al, (2016), there were 21 million pregnancies among adolescent girls aged 15–19 years in developing countries in 2016; nearly half (49%) were unintended (43% in Asia, 45% in Africa, and 74% in Latin America and the Caribbean) (Darroch, et al 2016). According to the Ethiopia Demographic Health Survey 2016 finding, the prevalence of adolescents’ unintended pregnancy is 13% (EDHS 2016) and it varies depending on residence, urban 5%, and rural 15% (EDHS 2016). Moreover, disparities are seen across regions, with the highest 23% in Afar, 8% in Amhara, and the lowest 3% in Addis Ababa (EDHS 2016). In Ghana, adolescents aged 10 to 19 years constitute 23% of the total population and the incidence of adolescent unintended pregnancy for those aged 12-19 years is 6.6 percent of all pregnancies in Ghana (Ghana statistical service 2015).

In Nigeria, Adolescent unintended pregnancy is a daunting problem. Studies have shown the prevalence of unintended pregnancy among adolescents to be 23% in the west, 36% in the southwest and 26% in the North central part of the country (Envuladu, et al. 2014). It also ranges from 6.2% in Niger Delta state to 49% in Abia State (Nwosu 2017).

In south western Nigeria, 27.4% unintended pregnancy among adolescents in a secondary school all ended in abortion (Sule, et al 2015), also, in the southern part of Nigeria, about 32% of the cases of unsafe abortion was among adolescents who had unintended pregnancies.

In Benin City, Edo state, the rate of unintended pregnancy and STI among adolescents is increasingly becoming a major problem. However, the sexual and reproductive health challenges of adolescents have been greatly neglected in Nigeria and not very well understood despite the magnitude (Nwabueze, et.al 2014; Folayan, et.al. 2015).

Adolescent pregnancies are a global problem occurring in high-, middle-, and low-income countries. Around the world, however, adolescent pregnancies are more likely to occur in marginalized communities, commonly driven by poverty and lack of education and employment opportunities. Recent reports (NPC & ICP, 2018), show that adolescents in rural areas are three times as likely to have begun childbearing than their urban peers; 27% of rural adolescents have had a live birth or are pregnant, as compared with 8% of urban adolescents.

Furthermore, it was reported by Darroch, et al. (Darroch, et al 2016). In their study, adolescents who may want to avoid unintended pregnancies may not be able to do so due to knowledge gaps and misconceptions on where to obtain contraceptive methods and how to use them.



Healthcare providers may also be prohibited from delivering contraceptive services to unmarried adolescents' (Godwin, Szabo et al 2014). The age that an adolescent is allowed to consent for sex often conflicts with the age that the adolescent is allowed to consent for medical interventions (WHO 2015).

Evidences from studies have shown that those who are pregnant as students either dropout of school or are dismissed from school, majority of whom may never get back to school again while others are forced by their parents into child marriage as a result of the pregnancy (Onyeka, Miettola et al 2011).

Peers are usually surrounded by people of the same age especially in school, and social class. They spend most of their time with friends and peers in school and other social gatherings and activities. Adolescents tend to engage in sexual behaviour especially when their close friends are sexually active thus influenced as these ones view sex as normal and exciting. Ahinkorah et al (2019) in their study showed that peer group pressure to have sex had the highest rate of 71.8% ignorance on uptake of contraceptive by adolescence was 69.3% on the causes of adolescence unintended pregnancies in Nigeria.

In a research by Blerta P. (2017) it was gathered that peer pressure in school was very common especially in schools that were of different social groups where popular students were known to be the high class and other groups in the lower class. However, adolescents were likely to engage in sexual intercourse when they have the high class as friends that were sexually active. Pressure to engage in this affected both male and female adolescents. In addition, fear of being dropped from the high-class group made them yield to sexual pressure which led to viewing sex as harmless, safe and exciting and this increased their desire to continue with sexual behaviour, thus placing more importance on how to be among the popular peer which can lead to the voluntary acceptance of sexual intercourse among male and females (Blerta P. (2017). Furthermore, a study in the local setting by Alex – Hart, et al, conducted among in-school adolescents in port Harcourt Rivers State, Nigeria found that the commonest reason for having sex was because their friends had also had sex and they want to belong to the class of students (Alex-Hart 2015).

Therefore, this study aimed to investigate the environmental factors predicting unintended pregnancies among in-school female adolescents in rural communities in south-south Nigeria.

The findings of this study, may assist governmental and non-governmental organizations and stakeholders dealing with in-school adolescents' sexual issues to understand ways of carrying out intervention programs that could prevent unintended pregnancies. The study also hypothesized that environmental factors (Media, peers, parents and socio-economic status) would predict unintended pregnancy among in-school female adolescents in rural communities in South-South Nigeria.



MATERIALS AND METHOD

Study Design and population

This study employed a quantitative design to understand the environmental factors predicting unintended pregnancies among in-school female adolescents in rural communities in South-South Nigeria from January 2021 to April 2021.

Study Sample and Technique

The study participants were in-school female adolescents in both public and private secondary schools in selected rural communities in South-South Nigeria. The sampling technique that was adopted for this study was a multi-stage sampling technique.

Proportionate stratified sampling was used to select the number of students in each school to participate in the study. The proportion for selection was calculated using the number of female students in the schools (SS1-SS3) divided by the total population of female students multiplied by the estimated sample size. A random sampling technique (balloting) was used to select participants from each class. The normal distribution sample size determination method was used so as to avoid type 1 and type 11 error at 95% level of significance and 80% power. The sample size for this study was 239. The study was approved by the Health Research Ethics Committee of the authors' institution.

Data collection method

A semi-structured questionnaire was used to obtain information concerning the environmental factors predicting unintended pregnancies among in-school female adolescents. Each student voluntarily participated in the study following a full description of the study and the consent to continue with the study from the participants was obtained. Each selected student participated in the study for an average of 25 minutes.

Ethical Consideration

The study was approved by the Health Research Ethics Committee of the authors' institution.

Data analysis

The data obtained from the respondents were coded and analyzed using statistical package for social science (SPSS) version 23.0 and were also summarized.



RESULT

Socio-Demographics of Respondents

The mean age of respondents was 15.8 ± 1.1 years with ages ranging from 13 to 19 years. All 239 (100%) of the respondents were female. Less than half 65(35.1%) of the respondents are in senior secondary one (SS1), while 37.1% were in senior secondary three (SS3). The predominant ethnic group among the respondents were Benin 76(31.8). Less than half 105(43.9%) of the respondents were Christian. Less than half 102(42.7%) of the respondents lived with both parents (See, Table 1).

Table 1: Demographic Characteristics of Respondents

Demographic Variables for Consideration	Frequency(n=239)	Percentage (%)
Age (in years) \bar{x}(SD) 15.8 ± 1.1 years		
13-14	19	7.9
15-19	220	92.1
Sex		
Female	239	100
Class		
SS1	84	35.1
SS2	65	27.2
SS3	90	37.7
Ethnicity		
Benin	76	31.8
Esan	70	29.3
Yoruba	48	20.1
Urhobo	28	11.7
Others	17	7.1
Religion		
Christianity	105	43.9
Islam	58	24.3
Traditional	76	31.8
I live with		
Father only	55	23.0
Mother only	47	19.7
Both parents	102	42.7
Guardian	18	7.5
Alone	17	7.1



Environmental factors of Respondents

The result of the binary logistic regression showed that those with low peer influence as compared with high peer influence had an odds of 0.92 times less likely to have unintended pregnancy (Odds ratio; 0.92; CI: 0.78-1.08; $p=0.27$). There was a statistical significant association between peer influence and having unintended pregnancy.

In-school, adolescents with low media influence as compared with those with high media influence had an odds of 1.01 times more likely to have unintended pregnancy (Odds ratio=1.01; CI: 0.87-1.17; $p=0.007$). However, there was no statistical significant association between media influence and having unintended pregnancy.

In-school, adolescents who had low parent support as compared with those who had high parent support had an odds of 0.96 times less likely to have unintended pregnancy (Odds ratio=0.96; CI: 0.81-1.14, $p=0.66$). (See table 2). However, there is no statistical significant association between parent support and having unintended pregnancy. Therefore, based on these values, unintended pregnancy is not dependent on the peer and parent support but is dependent on media influence (See table 2).

Table 2: Logistic Regression showing Environmental Predictor of Unintended Pregnancy

Variable	Unintended Pregnancy			
	Odd ratio	p-value	Confidence interval	
Peer influence	0.92	0.27	0.78	1.08
Media influence	1.01	0.007	0.87	1.17
Parent support	0.96	0.66	0.81	1.14

DISCUSSION

This study revealed that the majority of the respondents had moderate media influence. There was an association between media and unintended pregnancy. Exposure to indecent and sex-based messages in the media was cited as a predictor in studies conducted by Adongo, (2018) and Mothiba (2012). Both male and female teenagers in rural Ghana expressed a craving to try sexual activities exhibited in scenes from movies or television. (Adongo, 2018). Also, Carroll & Kirkpatrick (2011) reported that teens that were exposed to a high level of television sexual content were twice likely to experience an unintended pregnancy compared with those with lower levels of exposure.

Peer influence was found not to predict unintended pregnancy in this study. This finding is at variance with the results of Adongo, (20), Mothiba & Maputle, (21); Kuyinu et al, (22); Ochiogu (23) that peer influence is a predictor to unintended pregnancies among adolescents. The differences in results may be because the adolescents' knowledge of the consequence of unintended pregnancy influences them more than their peers.

Parent support was found not to predict unintended pregnancy. This finding does not corroborate the result of Adongo, (20); Ayele et al., (24) that lack of parental communication



and support, or poor as predictor of unintended pregnancy. This difference in finding may be because of the difference in study location.

Strength and Limitation

Strengths of this study include administering a validated questionnaire to participants as guided by standards of quantitative research to gather rich data saturation. On the other hand, the design of the study limits the generalizability of the study to other areas. Some of the adolescents who were sexually active were persuaded through incentives.

CONCLUSION

Media factors predicted unintended pregnancy most among in-school female adolescents as identified in this study. Incorporating protective sexual health media information into educational interventions can most likely aid in promoting more protective behaviours against unintended pregnancy especially in rural areas.

RECOMMENDATION

Based on the findings of this study the following are therefore recommended;

1. Educational materials about the negative effects of unintended pregnancy should be included in the curriculum of secondary schools to improve students' knowledge, attitudes and perceptions on unintended pregnancy and to promote abstinence.
2. Parents should create more time to discuss sexual matters with adolescents as well as monitor what they watch or read from time to time. Also parents should serve as good role models.
3. There should be youth friendly clinics established in different communities or Local Government head quarters to promote easy access to contraceptives.

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