African Journal of Health, Nursing and Midwifery
ISSN: 2689-9418
Volume 8, Issue 1, 2025 (pp. 34-44)
www.abjournals.org

FACTORS PREDISPOSING TO TEENAGE PREGNANCY AMONG FEMALE SECONDARY SCHOOL STUDENTS IN SOUTHWEST, NIGERIA

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Cite this article:

Osonuga, A. A., Osonuga, A., Oluwaferanmi, E., Osonuga, O. A., Akinloye, R. (2025), Factors Predisposing to Teenage Pregnancy among Female Secondary School Students in Southwest, Nigeria. African Journal of Health, Nursing and Midwifery 8(1), 34-44. DOI: 10.52589/AJHNM-JPMIFAIM

Manuscript History

Received: 23 Nov 2024

Accepted: 27 Jan 2025

Published: 4 Feb 2025

ABSTRACT: ***Background:*** *Adolescent females are amongst the most vulnerable age groups and are at risk of sexual, psychological, physical, mental and social problems. This coupled with increase in their sexual awareness, biological changes associated with puberty and tendency to explore and experiment their sexuality could result in high burden of reproductive health problems including teenage pregnancy. Adolescent pregnancies have a long-lasting impact on the physical and mental health, education, and livelihood of young women, men, and their families.* ***Methodology:*** *This study was a descriptive cross-sectional study, carried out among 270 in-school female adolescents in selected secondary schools in Lagos, Nigeria. A self-administered questionnaire was used to elicit the variables of interest, supervised by trained research assistants. The data collected were analyzed with Statistical Package for Social Sciences version 26.* ***Results:*** *The mean age of the respondents was 15.80±1.12 years. 59.3% of the respondents had poor knowledge on teenage pregnancy which showed statistical significance (P<0.000) when correlated with sexual intercourse. 13.7% of the respondents had had coitus, with the average age of coitarche being 15 years. There was a high prevalence of multiple sexual partners and a high abortion rate in our study (40.5% and 80.4% respectively). Teenage pregnancy was related to lack of parenting, poverty, lack of sex education, lack of self-control and peer pressure especially from their partners.* ***Conclusion:*** *There is a need to increase knowledge on teenage pregnancy among female adolescents in senior secondary schools in southwest Nigeria.*

KEYWORDS: Adolescents, Knowledge, Teenage Pregnancy, Sexual Intercourse.

Article DOI: 10.52589/AJHNM-JPMIFAIM
DOI URL: https://doi.org/10.52589/AJHNM-JPMIFAIM

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INTRODUCTION

The World Health Organization (WHO) defines adolescence as a period covering ages between 10 and 19 years. It is a period of transition from childhood into adulthood and a distinct and important biological and social stage of development[1]. During this period, adolescents start exploring sexuality and some young couples may start sexual relationships heralded by impulsivity. They are less informed, may not access the appropriate reproductive health (RH) services, and are therefore at a greater risk of contracting sexually transmitted infections (STIs) and sexually transmitted diseases (STDs). They are also more likely to become pregnant due to lack of knowledge of appropriate contraceptives[1-5].

Pregnancy in a girl between ages 10 and 19 years is termed adolescent or teenage pregnancy. In 2015 alone, approximately 21 million girls aged 15-19 years, another 2 million under the age of 15 years became pregnant and about 2.5 million under the age 16 years gave birth to children in developing countries[3,4].

Some authors have proposed reasons for this concerning the rise in teenage pregnancies in recent times. These include lack or inadequate education or information on safe-sex (either by parents, schools or developmental/government agencies) that could have enabled them to deal with friends who lure them into sex prematurely, single parenting, exposure to sexual content on television and social media, accessibility to pornographic and sex chat rooms by teenagers, exchange of gifts or acceptance of gifts for sex, and adults deliberately taking advantage of poor or naïve teenagers by encouraging them to engage in intercourse[6,7]. According to Shirin et al., (2016) residing in disorganized neighborhoods, lower socioeconomic status, low educational attainment, history of previous sexual abuse, early (child) marriage, poor parent-child interaction and lack of supervision have also been found to increase the risk of teenage pregnancy[8].

Teenage pregnancy is now a source of public health concern. United Nations (UN) data has shown that adolescent pregnancy is associated with higher rates of complications like obstructed labour, intrauterine growth restriction, premature birth, and vesicovaginal fistula. It is a significant cause of lifetime likelihood of socio-economic disadvantages (compared to those who delay childbearing until they are above twenty years of age), infant and maternal morbidity and mortality. Unfortunately, all these contribute to and heighten the vulnerability of adolescent females; hence, they become prone to abortion, sexually transmitted infections and social vices such as substance abuse[7-9].

In Nigeria, teenage pregnancy has attracted a great deal of concern and attention from various stakeholders including public health practitioners, religious leaders, policymakers, social scientists, and the general public. The impact of pregnancy on the health and livelihood of adolescents aged 15-19 years is substantial. This study will explore sociodemographic, behavioral, and environmental-level factors associated with adolescent pregnancy across two senior secondary schools in Lagos.

Article DOI: 10.52589/AJHNM-JPMIFAIM
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METHODOLOGY

This was a descriptive cross-sectional study carried out among female adolescents attending two public secondary schools in Lagos State.

Students between the ages of 14 and 19 years who voluntarily consented were recruited to the study using randomized, closed ballot, multi-staged sampling technique to select the respondents. Data was collected with pre-tested, semi-structured questionnaires, which were self-administered, covering 4 domains – socio-demographic characteristics of the respondents, knowledge of teenage pregnancy among female adolescents, sexual behaviors of female adolescents, factors predisposing to adolescent pregnancy – assessed using a 16-point scoring checklist with a maximum score of 16 points and a minimum score of 0 (see section B of appendix): this was deduced by principles highlighted from a guideline for conducting knowledge, attitude and practice study[10] – sexual behaviours and practice among female adolescents and factors predisposing to teenage pregnancy.

Data obtained was analyzed by SPSS for descriptive statistics, such as frequency, percentages, mean, and standard deviation. Inferential statistics, including chi-square and regression, were carried out to explore associations. Level of significance was considered at $p<0.05$ for all inferential statistics.

Inclusion Criteria

Female students

Adolescents aged 14-19 years

Voluntary willingness to participate in the study.

Exclusion Criteria

Students who were under the age of 18 years (legal age for consent) were excluded if parental consent was not given.

Sample Size Calculation

The minimum sample size was calculated using Kish-Leslie (1965) formula. According to a study conducted by Amoran et al., (2012), the prevalence of teenage pregnancy was 22.9%[11].

$$N = \frac{Z^2pq}{D^2}$$

n = minimum sample size required

z = standard normal deviation set at 1.96 which corresponds to 95% confidence level.

P = prevalence of teenage pregnancy = (0.229)

q = 1–p = (1–0.229) = 0.771

d = level of significant desired set at 0.05.

This resulted in 270 respondents that were divided into two groups for the two research areas.

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Ethical Consideration

Ethical approval was obtained from Babcock University Health Research Ethical Committee (BUHREC). The approval letter was taken to the management of the selected schools and parental consent form signed when applicable.

RESULTS

Socio-demographic Data of Respondents

Two hundred and seventy (270) questionnaires were analyzed from the responses gathered from the study participants (see Table 1 below). 92.6% (n=250) of the respondents were between the age of 14 and 17 years, while a very few respondents were 18 years and above (7.4%, n=20).

Parents of 178 students (65.9%) live together while 92 (34.1%) said their parents did not live together (separated/divorced/deceased). Among the latter, most live with other relatives (15.6%, n=62).

Table 1: Socio Demographic Characteristics of Female Adolescents n=270

Variables	Frequency	Percentages
Age		
14-16	250	92.6
17-19	20	7.4
Religion		
Christianity	209	77.4
Islam	61	22.6
Ethnicity		
Yoruba	89	33.0
Igbo	88	32.6
Hausa	31	11.5
Others	62	23.0
Do your parents live together?		
Yes	178	65.9
No	92	34.1
Who do you live with?		
With both parents	178	65.9
With father only	4	1.5

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With mother only	24	8.9
With relations	42	15.6
With grandparents	22	8.1

Knowledge of Teenage pregnancy

We used a 16-point scoring checklist to assess knowledge about teenage pregnancy among the study participants (see Appendix B). More than half of the respondents (59.3%, n=160) had poor knowledge about teenage pregnancy (see Figure 1). We categorized their scores into two: category 0-9 (poor knowledge) and category 10-16 (good knowledge) (see Table 2) based on studies done by other workers.

Table 2: Knowledge of Teenage pregnancy

Knowledge score	Frequency	Percentage (%)
0-9 (Poor Knowledge)	160	59.3
10-16 (Good Knowledge)	110	40.7
Total	270	100.0

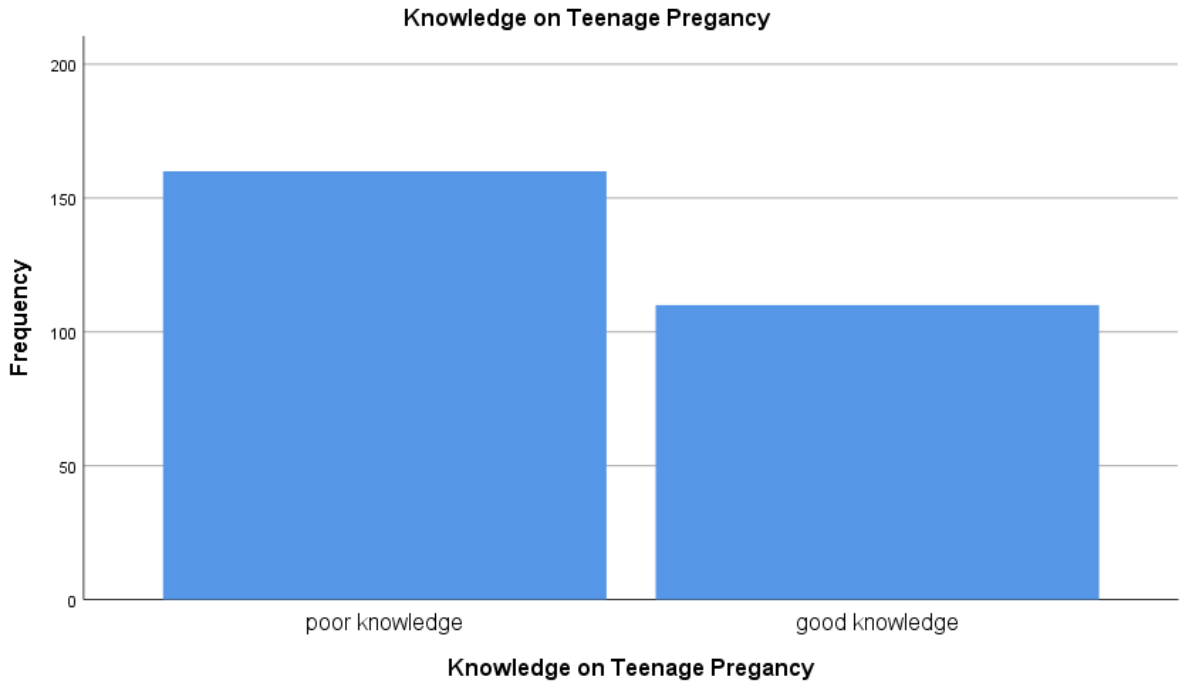

Figure 1: Knowledge of Teenage Pregnancy

Article DOI: 10.52589/AJHNM-JPMIFAIM
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Sexual Behaviours of Female Adolescents

13.7% (n=37) of the respondents had attained coitarche, with more than half (67.5%) of these between the age of 14 and 15 years (Table 3). Of the 37 that had had sexual intercourse, most (40.5%) had more than three sexual partners in the last 12 months. Regular contraceptive use was poor among those who engage in regular intercourse and the most common methods of preventing pregnancy was the use of condom (43.2%) and withdrawal method (21.6%). Twenty-seven percent (27%) of the respondents engaging in regular intercourse did not use any method to prevent pregnancy.

Of those who had had sexual intercourse, about two-thirds (67.6%, n=25) of them had been pregnant. The major outcome of these pregnancies was abortion in 84% of the respondents (Table 3).

Table 3 : Sexual Behaviour of Female Adolescents

Variables	Options	Frequency	Percentages
History of sexual intercourse	Yes	37	13.7
	No	233	86.3
Age at coitarche	10 years old	0	0
	11 years old	4	10.8
	12 years old	0	0
	13 years old	0	0
	14 years old	8	21.6
	15 years old	17	45.9
	16 years old	5	13.5
	17 years old	3	8.1
Number of sexual partners in the last 12 months	1 person	13	35.1%
	2 people	9	24.3%
	3 people and above	15	40.5%
Alcohol/illicit drug use prior to sexual intercourse	Yes	5	13.5
	No	32	86.5
Regular Contraceptive use while sexually active	Yes	12	32.4
	No	25	67.6
The last time you had sexual intercourse, what one method did you use to prevent pregnancy	No method	10	27.0
	“Pills”	3	8.1
	Condoms	16	43.2
	Withdrawal	8	21.6
Have you ever been pregnant?	Yes	25	67.6
	No	12	32.4
What happened to the pregnancy?	Abortion	21	84.0
	Live birth	2	8.0
	Still birth	2	8.0

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Factors Predisposing to Adolescent Pregnancy

Table 4 shows the reported causes of adolescent pregnancy. Out of the 270 respondents, 204 (75.6%), 140 (51.9%), 138 (51.1%) and 163 (60.4%) reported the cause(s) of adolescent pregnancy as lack of parenting, poverty, lack/inadequate sex education and lack of self control respectively (Table 4).

In the respondents that had had sexual intercourse, over half (n= 21, 56.8%) reported pressure from boyfriend/partner as a reason for sexual intimacy. A large number of the respondents 237 (87.8%) reported not exchanging anything for sex while 33 (12.2%) reported that they received something in exchange for sex, majorly in the form of monetary gifts (63.6%).

Table 4: Factors Predisposing to Adolescent Pregnancy

Variables	Option	Frequency	Percentage
Lack of parenting	Yes	204	75.6
	No	66	24.4
Poverty	Yes	140	51.9
	No	130	48.1
Lack of sex education	Yes	138	51.1
	No	132	48.9
Lack of self-control	Yes	163	60.4
	No	107	39.6
Reasons for sexual intercourse?	Force	4	10.8
	peer pressure	5	13.5
	Pressure of partner	21	56.8
	Curiosity	7	18.9
What did you receive for sex?	Money	21	63.6
	Gifts	10	30.3
	Others	2	6.1

From our result, we were able to demonstrate that a poor knowledge about teenage pregnancy was associated with a tendency to be exposed to sex. This finding was statistically significant ($p<0.005$).

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www.abjournals.org

Table 5: Knowledge about Teenage Pregnancy and Sexual Intercourse

Variable	Sexual intercourse		Chi-Square (X^2)	p-value
	Yes N(%)	No N(%)		
Poor Knowledge	28 (75.7)	82 (35.2)	21.67	**0.000***
Good Knowledge	9 (24.3)	151 (64.8)		

*Significant at p<0.05

DISCUSSION

The aim of this study was to assess the knowledge, and associated factors for teenage pregnancy among a group of secondary students in southwest Nigeria.

Our study shows that more than half of the respondents (59.3%) had poor knowledge of teenage pregnancy (Table 2, Figure 1). This finding is consistent with a recent study by Akpor et al., (2019), who reviewed the perspective of professional nurses and educators about teenage pregnancy[12]. Higher knowledge (over 70%) about teenage pregnancy was noted in other studies[13,14]. The reasons for these vary. In our study, we used a series of screening questions (see Appendix B) to stratify respondents into "good" and "poor" knowledge based on principles adopted from Kaliyaperumal in 2004[10]. Secondly, these studies that reported higher knowledge had a mix of both genders (while we used female respondents only) and they used a single question to assess knowledge about teenage pregnancy. Furthermore, variations in study location and sociodemographic factors of the student population used may also play a role. We found that poor knowledge was associated with the likelihood to be exposed to sex and this was statistically significant (see table 5).

About 13.7% of the respondents were sexually active (see Table 3). This was slightly lower than 28.3%, 40% and 73.2% reported by Aderibigbe et al., (2011)[15], Amazigo et al., (1997) [16] and Adejumo et al. (2013) [13] respectively who used a mixed gender population, but it was close to 22% reported by Amoran (2103) [11]. We do suggest that our study population being solely female may have influenced this to some extent, as males are more likely to engage in risk taking behaviours in adolescence than females including sexual activities. Adejumo et al al., (2013), attributed the high prevalence of sexual activity in their study to rapid urbanization, sexually suggestive television programmes and the influence of the internet[13].

The majority (45.8%) of our respondents were exposed to sex at age 15. Most other authors from our region agree about this[13-15]. The age of coitarche varies in different studies across Africa but, in Nigeria, it is thought to be around 15 years[16].

Of concern is the fact that about 40% of the respondents who had had sexual intercourse had three or more partners (Table 3). This potentially puts them at risk of teenage pregnancy and its attendant complications as well as risk of sexually transmitted infections as we do note that regular contraceptive use was quite low (32.4%) among those having regular coitus (Table 3). In a study by Azuike et al., (2015), more than half of their study population had multiple sex partners and 74.7% of them did not use condom during these episodes, resulting in a teenage pregnancy rate of 83.3%[18]. In our study, condom use was fair (43.2%); this may further explain

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the lower incidence of teenage pregnancy (32.4%) in our study compared to Azuike et al., (2015) [18]. We do worry about the 48.6% who practice withdrawal method and use no form of contraceptive/STI preventing methods as these are not adequate to prevent pregnancy or STIs.

From Table 4, we reviewed the thoughts of these students on the likely causes of teenage pregnancy. Top on the list were lack of parenting (75.6%) and lack of self-control (60.4%). This corroborates the study done by Achema et al., (2014), who reported that most of their student population felt lack of parenting care was responsible for teenage pregnancy[2]. Just like in our study, lack of sex education and poverty have been identified as other responsible factors for teenage/adolescent pregnancy in other studies[12,19-21].

Among the respondents who had had coitus, more than half (56.8%) reported pressure from their boyfriend/partner as a reason for sexual initiation while 13.5% reported peer pressure and 10.8% attributed it to force. This trend has been observed by other workers[6,19-21]. Adolescents felt pressured to have sex and they felt that they were not ready for a sexual relationship but proceeded anyway because they feared ridicule or rejection[6]. Also, teenagers who were uneducated about sex were more likely to have sexual intercourse and unintended pregnancy[6]. Again, this supports our findings on the association between poor knowledge about teenage pregnancy and sexual exposure (Table 5).

Trading sex for money or gift has been documented in literature[22-24]. This was also a feature in our study population (Table 4). Low socio-economic class and poverty, poor educational attainment of parents, amongst others, cause this cycle of sex for money and gifts. This unfortunate trend has been linked to harmful social vices, unwanted pregnancies, HIV and other STDs[23].

CONCLUSION

Teenage pregnancy remains a source of public health concern. All stockholders need to be involved to ensure that our teenagers and young adults are properly safeguarded and armed with the right education to prevent them from self-destruction.

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