



## Knowledge and Perception of Teenage Pregnancy in a Semi-Urban Setting in Rivers State, Nigeria

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### Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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### ABSTRACT

**Background:** The case of sexual behavior in adolescents is increasingly worrisome because teenage sexual behavior is now exceeding the limits and quite alarming. This is supported by research an increasing pattern in adolescent pregnancy in sub-Saharan Africa.

**Methods:** An interviewer-administered structured questionnaire was used to conduct a cross-sectional study of knowledge and perception of 200 adolescent females was carried out in a semi-urban area in Rivers state, Nigeria.

**Results:** About 61% of the respondents are reportedly sexually active and 39% are not sexually active while 70.0% of the respondents had poor knowledge of teenage pregnancy and 30.0% had good knowledge of teenage pregnancy. About 33.3% of respondents with good knowledge of teenage pregnancy was between 13 – 16 years old and 56.67% of individuals with good knowledge had tertiary education. It was observed that 76% of the sexually active respondents had poor knowledge of teenage pregnancy and only 60.3% of the non-sexually active persons had poor knowledge. The analysis shows that most of the sexually active persons had poor knowledge of teenage pregnancy (chi-square = 5.78 p = 0.016) and the likelihood of poor knowledge was 1.2 times (95% C.I: 1.0 – 1.5) more among the sexually active adolescents. The findings also showed that 52% think peer pressure leads to teenage pregnancy, 78% indicated that poor sexual

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education at school lead to teenage pregnancy, 71.5% indicated that substance abuse led to teenage pregnancy. Other factors and consequences as indicated by the respondents include: Unsupervised teenagers (83.5%), rape (86.5%), social media (81.5%), Poverty (72.0%), Unsafe abortion (87.5%), stigma and isolation (93.5%).

**Conclusion:** The study showed a relatively poor knowledge of teenage pregnancy especially among sexually active female adolescents. Sexual education and increased awareness are recommended to curb the spread of teen pregnancy in this region.

*Keywords: Adolescent; pregnancy; knowledge; awareness.*

## 1. INTRODUCTION

Teenage pregnancies and teenage motherhood are a cause for concern worldwide. According to, the vast majority of teenage pregnancies occur in low and middle income countries characterized by poor health care services therefore, complication during pregnancy birth and post-partum phase i.e. 42 days after births are the second cause of death among girls aging between 13 and 19 years worldwide [1,2]. Although in traditional societies enormous risk which is associated with teenage pregnancy, such as, school dropout and complications during delivery or after delivery [3–5]. Adolescent pregnancy is a major public health problem, particularly in Africa. It has contributed to maternal and child morbidity and mortality and affects the socio-economic development of a country [6–8]. It is also linked to an increased risk of adverse pregnancy and childbirth outcomes compared to older women. More than 70,000 adolescent girls die every year because of these complications mainly in rural countries [7,9,10]. Most maternal and child morbidity and mortality are related to hypertensive disorders of pregnancy, infections, low birth weight, and preterm delivery [10–12]. The highest rate of teenage pregnancy in the world — 143 per 1,000 girls aged 13–19 years — is in sub-Saharan Africa. Women in Africa, in general, get married at a much younger age than women in other countries leading to earlier pregnancies. In Nigeria, according to the Health and Demographic Survey in 2015, 47% of women were married before the age of 15, and 87% before the age of 18. Also, 53% of those surveyed had given birth to a child before the age of 18 [12–14]. African countries have the highest rates of teenage birth (2002) According to data from World Bank, as of 2015, the highest incidence of births among 13- to 19-year-old girls was in Niger, Mali, Angola, Guinea, and Mozambique [5,12].

It has been observed that teenage is one of the major causes of morbidity rates among girls due

to increased rate of abortion, obstructed labour, high blood pressure, bleeding during delivering, child abuse, anaemia, frustration, depression and emotional stress, both in communities and developing countries [1,5,15]. Majority of teenage pregnancy cases are reported in low-middle-income countries such as Nigeria [16–18]. Adequate knowledge and awareness of teenage pregnancy and associated behaviours could go a long way in curbing the occurrence of teenage pregnancy and improving the livelihood of young adults in the country. The study was carried out to assess the pattern of knowledge and awareness of teenage pregnancies in a Semi-urban area of Rivers state, Nigeria.

## 2. METHODS

### 2.1 Study Area

This study was conducted in Amadi-ama Community of Port Harcourt Local Government area, Rivers State. Okrika is the native language of the indigenes. Amadi-ama, breaks out from the west part of Okrika, and it's an autonomous community with kings, and rulers of the community. The main occupation of the residents are fishing, civil service and trading.

### 2.2 Study Sample

A multistage sampling was used to select 200 female adolescents (aged 13-19 years) residing in Amadi-ama community in Port Harcourt Local Government Area of Rivers State.

### 2.3 Data Collection

A structured interviewer-administered questionnaire was used to collect data from the respondents. The data collected include; Demographic characteristics such as age and current level of highest academic qualifications, knowledge of teenage pregnancy and awareness of risk factors for teenage pregnancy.

### 2.4 Data Analysis

Data analysis was done with the statistical package for social sciences (SPSS) v.25. Descriptive statistics such as mean, frequencies and percentages were done on the dataset. Good knowledge of teenage pregnancy was categorized as  $\geq 70\%$  in knowledge of teenage pregnancy, while poor knowledge was categorized as  $\leq 69\%$  of the knowledge of teenage pregnancy as previously indicated [7]. The chi-square statistics was used to determine the association of the knowledge and awareness of teenage pregnancy with demographic characteristics among the respondents. All analyses were done at a 95% confidence interval and a p-value less than 0.05 was considered significant.

### 3. RESULTS

Table 1 shows that 41% of the respondents were between 13 – 16 years old and 59% were between 17 – 19 years old. The mean age of the

respondents was  $16.6 \pm 1.7$  years. Among the respondents, 7.0% had no formal education, 3.5% had primary education only, 36% had secondary education and 53.5% had tertiary education.

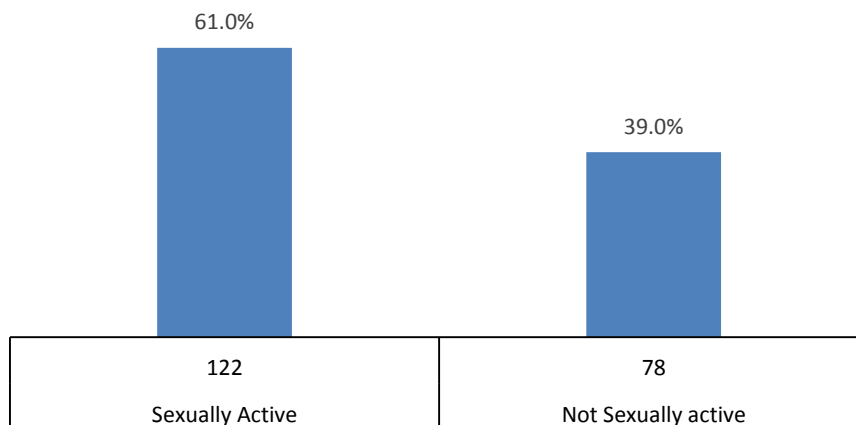
Fig. 1 shows that 61% of the respondents are reportedly sexually active and 39% are not sexually active.

Fig. 2 shows that 70.0% of the respondents had poor knowledge of teenage pregnancy and 30.0% had good knowledge of teenage pregnancy.

Table 2 shows that 33.3% of respondents with good knowledge of teenage pregnancy was between 13 – 16 years old and 56.67% of individuals with good knowledge had tertiary education. However, there was no significant association between good knowledge and the age group or level of education among the respondents.

**Table 1. Demographic Distribution of Respondents**

Variables	Frequency n=200	Percentage (%)
<b>Age-Groups</b>		
13-16	82	41.0
17-19	118	59.0
<b>Mean age <math>\pm</math>SD</b>	<b>16.6<math>\pm</math>1.7</b>	
<b>Highest educational qualification</b>		
No Formal Education	14	7.0
Primary	7	3.5
Secondary	72	36.0
Currently in tertiary institutions	107	53.5



**Fig. 1. Distribution of sexual activity**

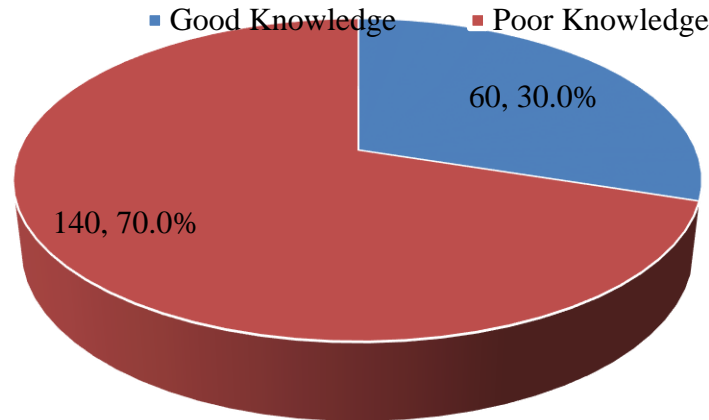


Fig. 2. Distribution of knowledge of teenage pregnancy

Table 2. Distribution of knowledge of teenage pregnancy and demographic factors

Demographic factors	Good knowledge n=60, (%)	Poor knowledge n= 140 (%)	Chi-square (p-value)
age groups (years)			
13 - 16	20(33.33)	62(44.29)	2.08 (0.149)
17 - 19	40(66.67)	78(55.71)	
<b>Education</b>			
No formal education	3(5.00)	11(7.86)	1.37 (0.712)
Primary	3(5.00)	4(2.86)	
Secondary	20(33.33)	53(37.86)	
Tertiary	34(56.67)	73(52.14)	

Table 3. Association of knowledge of teenage pregnancy and sexual activity

Sexually Active	Poor n=140 (%)	Good n=60 (%)	Total n=200, (%)	Chi-square (p-value)	Odds Ratio (9% C.I)
Yes	93(76.23)	29(23.77)	<b>122 (100.0)</b>	5.78 (0.016)*	1.2 (1.0 - 1.5)
No	47(60.26)	31(39.74)	<b>78 (100.0)</b>		

\*Statistically significant (p <0.05)

Table 3 shows that 76.23% of the sexually active respondents had poor knowledge of teenage pregnancy and only 60.26% of the non-sexually active persons had poor knowledge. The analysis shows the most of the sexually active persons had poor knowledge of teenage pregnancy (chi-square = 5.78 p =0.016) and the likelihood of poor knowledge was 1.2 times (95% C.I: 1.0 – 1.5) higher among sexually active adolescents.

Table 4 shows the perception of teenage pregnancy among the respondents. There was

no significant association with the perception of teenage pregnancy and sexually active persons among the respondents. The table showed that 52% think peer pressure leads to teenage pregnancy, 78% indicated that poor sexual education at school lead to teenage pregnancy, 71.5% indicated that substance abuse led to teenage pregnancy. Other factors and consequences as indicated by the respondents include: Unsupervised teenagers (83.5%), rape (86.5%), social media (81.5%), Poverty (72.0%), Unsafe abortion (87.5%), stigma and isolation (93.5%).

**Table 4. Perception of factors associated with teenage pregnancy**

Factors associated with teenage pregnancy	Sexually active		Total n=200 (%)	Chi-square (p-value)
	Yes n=122, (%)	No n=78 (%)		
<b>Peer Pressure</b>				
Yes	69(56.56)	36(46.15)	105(52.50)	2.06 (0.151)
No	53(43.44)	42(53.85)	95(47.50)	
<b>Poor Sexual Education in School</b>				
Yes	97(79.51)	60(76.92)	157(78.50)	0.18 (0.664)
No	25(20.49)	18(23.08)	43(21.50)	
<b>Substance Abuse (Alcohol and Drugs)</b>				
Yes	87(71.31)	56(71.79)	143(71.50)	0.01 (0.941)
No	35(28.69)	22(28.21)	57(28.50)	
<b>Unsupervised Teenagers</b>				
Yes	98(80.33)	69(88.46)	167(83.50)	2.2 (0.131)
No	24(19.67)	9(11.54)	33(16.50)	
<b>Rape</b>				
Yes	103(84.43)	70(89.74)	173(86.50)	1.53 (0.464)
No	18(14.75)	8(10.26)	26(13.00)	
<b>Social Media</b>				
Yes	99(81.15)	64(82.05)	163(81.50)	0.026 (0.872)
No	23(18.85)	14(17.95)	37(18.50)	
<b>Poverty</b>				
Yes	84(68.85)	60(76.92)	144(72.00)	1.53 (0.215)
No	38(31.15)	18(23.08)	56(28.00)	
<b>Consequences of Teenage Pregnancy</b>				
<b>Unsafe Abortion</b>				
Yes	104(85.25)	71(91.03)	175(87.50)	1.45 (0.228)
No	18(14.75)	7(8.97)	25(12.50)	
<b>Stigma and Isolation</b>				
Yes	114(93.44)	73(93.59)	187(93.50)	0.002 (0.967)
No	8(6.56)	5(6.41)	13(6.50)	

#### 4. DISCUSSION

Adolescence is often noted as a transitional period characterized by good health. Despite this notion, adolescents (aged 10–19 years) are saddled with health risk exposures related to their sexuality and reproduction [1,5]. For instance, adolescent pregnancy (AP) and its associated health and social implications signify a major public health concern that requires critical resolution in many nations [3,4,11].

The findings of the study showed that 61% of the respondents are reportedly sexually active and 39% are not sexually active. The findings of the study showed that 61% of the respondents are reportedly sexually active and 39% are not sexually active. Thus is similar to the findings of a similar study which reported that the median age of first sex among never-married females was between 15-17 years while more than one in five adolescents have had sex before age 16

[19]. It has also been reported that the age at first sexual intercourse among 56.2% of female students ranged between 10–19 years, especially due to peer pressure [20].

The current study showed that 70.0% of the respondents had poor knowledge of teenage pregnancy and 30.0% had good knowledge of teenage pregnancy. This is in contrast with the findings of a similar study in India that reported only 25% had inadequate knowledge towards teenage pregnancy [21,22]. About 33.3% of respondents with good knowledge of teenage pregnancy was between 13 – 16 years old and 56.67% of individuals with good knowledge had tertiary education. However, there was no significant association between good knowledge and the age group or level of education among the respondents. This is in contrast to the reports of a similar study in Ile-Ife, Nigeria, which indicated that good knowledge of teenage pregnancy was significantly higher among older

adolescents ( $\geq 16$  years) and adolescents with tertiary educational backgrounds.

It was observed that 76% of the sexually active respondents had poor knowledge of teenage pregnancy and only 60.3% of the non-sexually active persons had poor knowledge. A variety of studies have reported the relatively inadequate knowledge of sex and teenage pregnancy among 3 in 5 adolescents [16,18–21]. The current study showed that most of the sexually active persons had poor knowledge of teenage pregnancy (chi-square = 5.78  $p = 0.016$ ) and the likelihood of poor knowledge was 1.2 times (95% C.I: 1.0 – 1.5) higher among sexually active adolescents. The study showed that there was no significant association with the perception of teenage pregnancy and sexually active persons among the respondents. About 52% indicated that peer pressure leads to teenage pregnancy, while 78% indicated that poor sexual education at school lead to teenage pregnancy, 71.5% indicated that substance abuse led to teenage pregnancy. Other factors and consequences as indicated by the respondents include: Unsupervised teenagers (83.5%), rape (86.5%), social media (81.5%), Poverty (72.0%), Unsafe abortion (87.5%), stigma and isolation (93.5%). This finding is consistent with the reports of similar studies as reported; Misconceptions included sterility, condoms disappearing within the woman's body, development of cancer, prolonged menstruation, heart palpitations, and excessive weight gain or loss. In another study, girls avoided using contraceptives simply because they did not want to use them [6–8,20,21]. Low knowledge of sexual health, contraceptives and abortion was mentioned in 4 of the 15 studies [2,17,18,20,22]. This is an indication of a prevalent poor knowledge of teenage pregnancy and associated factors among adolescent girls due to either peer pressure or inadequate sexual education offered by either parents/guardians or teachers.

## 5. CONCLUSION

The study showed that most of the adolescents had poor knowledge of teenage pregnancy and the likely consequences. It was evident that poor knowledge was especially higher among the sexually active adolescents. Peer pressure seems to be a significant factor influence sexual activity. However, poor knowledge of teenage pregnancy and associated consequences prevail among female adolescents in the state. Sexual education and increased awareness are

recommended to curb the spread of teen pregnancy in this region.

## CONSENT

A willing written informed consent will be obtained from their parents and guardians of the adolescents that participated in this study.

## ETHICAL APPROVAL

Ethical approval to carry out the study was obtained from the ethics committees, Rivers state University and the Rivers state primary healthcare board. Letters were issued to the community development committee chairmen of the community that was selected for this study.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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