



# **Demographic Variables Associated With Teenage Pregnancy In Obio-Akpor Local Government Area Of Rivers State**

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## **ABSTRACT**

This study investigated the demographic variables associated with teenage pregnancy in Obio-Akpor Local Government Area of Rivers State. Specifically, this study identified four of these variables including parental educational level, parental income, and family structure. Based on these variables, three research questions were developed to guide the study. The study adopted the ex-post facto research design using a sample of 200 teenagers drawn through purposive sampling technique. The researcher developed a questionnaire that was adequately validated. For data analysis, mean and standard deviation were used. The result showed that high parental educational status, high parental income, and family structure were negatively related to teenage pregnancy. Based on the result obtained, appropriate recommendations were made. Limitations of the study were highlighted as well as suggestions for further studies.

**Keywords:** Teenage pregnancy, Parental Educational Qualification, family structure

## **INTRODUCTION**

For the past few decades, the issue surrounding adolescents' sexual and reproductive health has taken the center stage within the global discourse of reproductive health problems. Across the world today, teenagers' sexuality has become an important topic because they are known to be sexually active (Alubo, 2001). Researchers such as Onuzulike (2003) have shown that teenagers become sexually active at an early age with a correspondingly high rate of fertility. According to Nwosu (2005), teenage sexual activities in Nigeria also tend to be on the increase with the consequence of out of wedlock pregnancies that may result in abortion, childbirth or even death of either the mother or the infant.

Pregnancies among teenage girls seem to be one of the social menace facing not only Nigeria but also an increasing number of other nations around the world. As a social ill affecting society, teenage pregnancy does not portend well for the physical, social, moral and economic development of the girl-child. This is because of the girls' age and the absence of any stable means of supporting themselves as well the children they might give birth to. It has been argued that teenage pregnancy and the experiences associated with it are characterized with shame, disgrace, school dropout, end of the individual's dreams of achieving higher pursuits and even death (Gyan, 2013).

In the literature, the term 'adolescents' has been used synonymously with 'teenagers'. Irrespective of the longstanding investigation into adolescents' optimal development, there is no universal definition of what it means due to differing cultural, legal, temporal and political differences of nations as well as scholars (Ozomena, 2008). World Health Organization (WHO, 2014) posited that adolescence or teenage years corresponds to the period between 10 and 19 years when the secondary sex characteristics appear. According to Turner and Helms cited in Ozeomena (2008), the teen years fall between the ages of 13 and 19 years. In the opinion of Adesomowo (1988), the teen years start at either 11 or 12 years and lasts to 19 years when the character of a person assumes a relatively stable form. According to Nwosu (2005),

adolescents include all persons aged 13 to 19 years who constitute about 20 per cent of the world population. Melgosa (2001) and a host of other developmental scholars agree that the teen years span from the 13<sup>th</sup> to the 19<sup>th</sup> years of life.

Eriega (2010) described the teen years as a period of transition from childhood to adulthood, characterized by increased social awareness and even greater physical growth. This period, he argued, marks the onset of puberty and biological maturity which is a vital period in the life of an individual because many important social, economic landmarks which sets the stage for meaningful adult life. According to Ukekwe (2001), it is the most important period in human life, which if not properly handled, could result in disastrous consequences in later life, especially among females.

Albeit the varied positions on the onset and end of the teen years, numerous authors, researchers and policymakers, as stated previously indicated that the teen years span from the 13<sup>th</sup> to the 19<sup>th</sup> year of life. It is against this background that this study sees the teenage years as the period between the 13<sup>th</sup> and 19<sup>th</sup> years from the day of birth, characterized by the onset of puberty, appearance of secondary sexual characteristics, increased social awareness and improved emotional and mental functioning.

A fundamental consensus among researchers concerning the teenage years is that it is characterized by identity confusion and role ambiguity (Eriega, 2010). This has led many to take decision and actions that have inhibited their optimal development and resulted in excruciating outcomes. One such outcome is teenage pregnancy. The onset of the teenage years is expected to lead to a greater social awareness in which the teenager gets involved in social relationships with members of the opposite sex (heterosexual relationship) and form a more intimate relationship with others beyond his immediate family members. (Passer & Smith, 2008). Adding to this, Ozeomena (2008) stated that adolescents through their social interactions are expected to grow up morally, while also imbibing the norms, values and appropriate pattern of behaving from the society as they develop into adulthood. On the contrary, most teenagers get involved in socially abhorring behaviour such as drug abuse, smoking, cultism, while other engage in premarital sexual activity which exposes them to abortions, sexually transmitted infections (STIs) and pregnancies.

According to Gordon cited in Ozoemena (2008), pregnancy is a condition in which a female carries in her womb a young person before it is born. A look at the definition of pregnancy above could reveal that pregnancy is meant for procreation and continuity. Eriega (2010) stated that pregnancy refers to the unfolding of innate characteristics of a new life in the uterus of a female as a result of the fertilization of a female egg by the sperm from a male. According to Nwosu (2005) when pregnancy occurs at the suitable time and within the framework of a legal marriage, it is a welcomed development, but if a teenager engages in pre-marital sex that results in pregnancy, she is putting herself in a responsibility that she is inadequately prepared for. Within the context of this work, teenage pregnancy refers to the fertilization of a female teenage egg by a male sperm that led to the implantation of a foetus in the uterus of the female teenager that may or may not result to childbirth. Embedded in this definition is the possibility of miscarriage, abortion or even stillbirth. In order words, a female teenager is considered pregnant when there is conception, whether it leads to childbirth or not.

One key research theme within the literature on teenager development generally, and teenage pregnancy specifically is the identification of consequences of teenage pregnancy on the development of the teenage mother and its outcome for the child, if it leads to childbirth. Ukekwe (2001) stated that stress arises even when pregnancies are planned, and to think of unplanned pregnancy means that the girl has to restructure her roles because she is likely inadequately prepared for parenthood. Fadeyi (1978) observed that numerous cases of school dropout; maternal mortality and morbidity, infertility, abortion and children being abandoned in gutters, dustbins, latrines and other deadly places are clear manifestations of the malady of teenage pregnancies. Although this problem seems to have a global scope, this researcher has watched the appalling increase of this menace in Obio-Akpor Local Government Area. It becomes pertinent because all teenagers go through the upheavals that characterized this phase, yet not all experience teenage pregnancy. In these researchers' opinion, some possible demographic factors that could be associated with teenage pregnancy include parental educational status, the income level of parents, and family structure.

Parental educational qualification has been aptly referred to a “pointer for the development of their children” (Akinsanya, Ajayi, & Salomi, 2011). It is therefore pertinent to state that the educational qualification of both parents is a key determinant in the social, personality, economic and physical outcome of their children, including sexual behaviour and teenage pregnancy. Parental education has been shown to have a negative relationship with adolescents' sexual debut while having a positive relationship with contraceptive use and abstinence (Biddlecom, Awusabo-Asare, & Bankole, 2009). This, therefore, implies that the higher the parental level of education, the lesser the increase in the sexual debut of adolescents. This could explain why teenagers from homes with educated parents reported less teenage pregnancy (Buhi & Goodson, 2007).

Individuals born into this world are usually born into families. It is the family that provides the first set of instructions and acts as the primary agent of socialization. Most often, an individual cannot be detached from his family dynamics, and whatever the person grows up to be can usually be explained from the family. In the same vein, teenage pregnancy can be and has been explained from the structure of a teenager's family structure. Sturgeon (2008) argues that teenagers from intact families tend to delay sexual initiation until a significantly older age than their peers from non-intact homes. This could be a possible reason for the reported incidence of teenage pregnancy among single-parent homes by Cancian (2009).

As can be viewed from the brief analysis done above, it can be seen that the issue of teenage pregnancy has been extensively discussed. Despite this extensive discussion, little effort has been made to understand how the demographic variables defined above are associated with it. Worse still no previous effort has been made to understand the demographic variables associated with teenage pregnancy in Obio-Akpor LGA, even with the large number of pregnant teenagers that report to various hospital and clinic. It is therefore against this background that this study was conceived to understand some demographic variables associated that are associated with teenage pregnancy in Obio-Akpor Local Government Area of Rivers State.

### **Statement of the Problem**

The future of every nation lies in its ability to provide opportunities for its citizens, especially the younger generation to prepare themselves for the tasks of adulthood and nation-building. It is therefore on this premise that all nations Nigeria included, has fashioned out policies for it her citizen to develop optimally. But with the current level of moral decadence, especially among the teenagers which culminates in illicit drug abuse as well as increased sexual activity, it is worrisome if the younger generation can truly be leaders of tomorrow. The teenagers of today engage in premarital sexual activity, without due regard for the consequences such as teenage pregnancy. When a teenager gets pregnant, the individual is forced to abandon schooling to fend for a baby she is poorly prepared for. Worse still some pregnant teenagers have resorted to abortion in which they take different forms of abortifacients, which may cause irreversible health damage or even death. Although the consequences of teenage pregnancy are well known, for any meaningful intervention to be conducted to abet the above negative consequences to the individual and the society, it is apposite for a proper understanding of the psychological and social factors associated with teenage pregnancy to be established. The problem of this study therefore is to investigate some possible demographic factors associated with teenage pregnancy in Obio-Akpor Local Government Area.

### **Purpose of the Study**

This study aimed to investigate some possible demographic variables associated with teenage pregnancy in Obio-Akpor Local Government Area of Rivers State. The specific objectives of this study were:

1. To investigate the association between parental educational level and teenage pregnancy in Obio-Akpor Local Government Area of Rivers State.
2. To investigate the association between parental income and teenage pregnancy in Obio-Akpor Local Government Area of Rivers State.
3. To investigate the influences of family structure on teenage pregnancy in Obio-Akpor Local Government Area of Rivers State.

### **Research Questions**

The following research questions were developed to guide the study:

1. What is the association between parental educational level and teenage pregnancy in Obio-Akpor Local Government Area of Rivers State?
2. What is the association between parental income and teenage pregnancy in Obio-Akpor Local Government Area?
3. What is the association between family structure and pregnancy in Obio-Akpor Local Government Area of Rivers State?

### **METHODOLOGY**

#### **Research design**

The ex-post facto research design was adopted for the study. The present study is an ex-post facto work because the researcher collected data from a large sample of pregnant teenagers and non-pregnant teenagers in Obio-Akpor Local Government Area to identify the association between the selected demographic variables of parental educational level, parental income, and family structure, and teenage pregnancy. The population of the study comprised all the female teenagers in Obio-Akpor Local Government Area from all the various villages and clans. The population of teenagers at the time of this study was not known. Both pregnant and non-pregnant female teenagers were used for the study. Female teenagers were chosen for this study because they are the ones who can get pregnant. Although male teenagers can impregnate others, they do not understand the factors and consequences of pregnancy as much as the females, therefore the choice of female teenagers.

#### **Sample and Sampling Technique**

The purposeful/convenience sampling technique was used for drawing two samples of teenage girls: pregnant and non-pregnant teenagers. A sample size of 150 pregnant teenagers was used while a sample of 200 non-pregnant teenagers was used as the comparison group. This purposeful sampling method was adopted because there is no available data on the number of pregnant and non-pregnant female teenagers. The sample of the pregnant group was gotten from three health institution in the Local Government where teenagers were most likely to seek health services, as well as from known pregnant teenagers and teenage mothers. The sample for the non-pregnant teenagers was gotten from secondary schools where an ample number of non-pregnant female teenagers was obtainable.

#### **Instrument for Data Collection**

The instrument for data collection was a multivariate researcher-developed instrument titled *Demographic Variables Associated with Teenage Pregnancy Inventory (DVATPI)* developed to elicit the response from teenagers on the selected demographic variables as well as their present conditions (Pregnant or non-pregnant). The instrument was divided into three major sections: A, B, C, and D. Section A of the instrument provides spaces for respondents to indicate their pregnancy condition, their age, and parental highest educational qualification. Section B of the instrument contains 5 items meant to assess the association between parental educational level and teenage pregnancy. This section is constructed on a four-point Likert scale of Strongly Agree (A), Agree (A), Disagree (D) and Strongly Disagree (SD), with a corresponding value of 4, 3, 2 and 1. Section C of the instrument is a 5 item researcher-developed scale to assess the association between parental income and teenage pregnancy. It is constructed on a 4-point Likert scale of Strongly Agree (A), Agree (A), Disagree (D) and Strongly Disagree (SD), with a corresponding value of 4, 3, 2 and 1. Section D of the instrument is a 5 item scale to assess the association between family structure and teenage pregnancy. This instrument was constructed on a four-point Likert scale of Strongly Agree (A), Agree (A), Disagree (D) and Strongly Disagree (SD), with a corresponding value of 4, 3, 2 and 1.

#### **Validity and Reliability of the Instrument**

To ensure the face and content validity of the instrument, copies of the instrument were given to the two experts in Testing and Measurement in the Department of Educational Psychology, Guidance and Counselling in the University of Port Harcourt, along with the objectives and research questions of the study, to evaluate the instrument on item content, relevance, comprehensiveness, clarity, and literacy

demand. Their suggestions, corrections and modification were integrated into the final version of the instrument. To verify the reliability of the instrument, the test re-test technique was utilized. The instrument was administered to 10 pregnant teenagers and twenty non-pregnant teenagers from Emohua Local Government Area, and after an interval of two weeks, it was re-administered to the same sample. The score from the two administrations was analyzed using Pearson Product Moment Correlation. The correlation coefficients of 0.70, 0.73, and 0.81 were obtained for sections B, C, and D which indicated that the instrument subscales possessed suitable reliability indices for its use.

**Method of Collection and Data Analysis**

Direct delivery method was adopted in the administration of this instrument. That is to say that copies of the instrument were administered at the locations specified directly to the respondents. The instrument copies were also retrieved immediately after the respondents’ action. For answering the research questions, mean and standard deviation were used. In answering the research question, a criterion mean of 2.5 was used. Therefore any item with a mean value equal to greater than 2.50 was agreed, while anyone lesser than 2.50 was disagreed upon. Furthermore, a grand mean value was used to identify the extent of association between the demographic variables and teenage pregnancy.

**RESULTS**

**Table 1: Mean and standard deviation of association between parental education level and teenage pregnancy**

	PARENTAL EDUCATIONAL LEVEL	Mean	SD	C.M	Decision
1	Parents who are educated can guide their children from becoming pregnant	2.69	1.05	2.50	Accepted
2	Low education of parents make teenagers vulnerable to teenage pregnancy	3.56	1.33		Accepted
3	Teenagers are less prone to get pregnant if their parents are well educated	2.67	1.32		Accepted
4	Teenagers who have adequate sex education from their parents seldom get pregnant	3.14	1.45		Accepted
5	The educational level of a parent is a factor that influences teenage pregnancy	3.19	1.07		Accepted
	Grand Mean	3.05			Accepted

From the data analysis presented in Table 1, it is evident that item 1 (Parents who are educated can guide their children from becoming pregnant) had a mean value of 2.69 (SD = 1.05), item 2 (low education of parents make teenagers vulnerable to teenage pregnancy) had a mean value of 3.36 (SD = 1.33), item 3 (Teenagers are less prone to get pregnant if their parents are well educated) had a mean value of 2.67 (SD = 1.32), item 4 (Teenagers who have adequate sex education from their parents seldom get pregnant) had a mean rating of 3.14 (SD = 1.45), while item 5 (Educational level of a parent is a factor that influences teenage pregnancy). A closer observation of the mean values obtained for all the items reveal that there were all greater than 2.50, thus they were all accepted. Furthermore, a grand mean of 3.05 was gotten which indicates that it was agreed by the respondents that parental educational level is a demographic variable associated with teenage pregnancy in Obio-Akpor Local Government Area of Rivers State.

**Table 2: Mean and standard deviation of the association between parental income and teenage pregnancy**

S/N	PARENTAL INCOME	Mean	SD	Criterion mean	Decision
6	Most teenagers get pregnant when their parents cannot afford their basic need	3.40	1.33	2.50	Accepted
7	Teenagers from rich homes hardly get pregnant	3.29	1.21		Accepted
8	When a teenager is from a rich home, she engages in less sex	3.06	1.28		Accepted
9	Parents with adequate income meet their children's need and this causes less pregnancy	3.16	1.17		Accepted
10	Parental income is a factor associated with teenage pregnancy	3.28	1.22		Accepted
	Grand Mean	3.23			Accepted

As shown in table 2, teenage respondents accepted item 6 (most teenagers get pregnant when their parents cannot afford their basic need) because it yielded a mean value of 3.40 (SD = 1.33). Also, the result showed that item 7 (teenagers from rich homes hardly get pregnant) had a mean 3.29 (SD = 1.21), item 8 (when a teenager is from a rich home, she engages in less sex) had a mean of 3.06 (SD = 1.28), item 9 (parents with adequate income meet their children's need and this causes less pregnancy) had a mean of 3.16 (SD = 1.17), while item 10 (parental income is a factor associated with teenage pregnancy) had a mean value of 3.28 (SD = 1.22). A look at the mean values indicates that there were greater than 2.50 which was the criterion mean. This indicates that there is a positive association between lower parental income and teenage pregnancy.

**Table 3: Mean and standard deviation of association between family structure and teenage pregnancy**

	FAMILY STRUCTURE	Mean	SD	Criterion Mean	Decision
11	Teenagers from broken homes are prone to be teenage mothers	3.13	1.83	2.50	Accepted
12	Broken homes cause greater teenage pregnancy	2.90	1.66		Accepted
13	Absence of one parent leads to a greater incidence of teenage pregnancy	3.22	1.72		Accepted
14	It is very difficult for one parent to be able to prevent teenage pregnancy	3.28	1.28		Accepted
15	Teenage who involve in more sex are likelier to be pregnant	3.00	1.04		
		3.13			Accepted

From the data analysis in Table 3, the result showed that item 11 (teenagers from broken homes are prone to be teenage mothers) had a mean value of 3.13 (SD = 1.83), item 12 (broken homes causes greater teenage pregnancy) had a mean of 2.90 (SD = 1.66), item 13 (absence of one parent leads to a greater incidence of teenage pregnancy) had a mean value of 3.22 (SD = 1.72), item 14 (it is very difficult for one parent to be able to prevent teenage pregnancy) had a mean value of 3.22 (SD = 1.28), while item 15 had a mean value of 3.00 (SD = 1.04). This result showed that all the items had mean values greater than 2.50, thus they were all accepted. Furthermore, a grand mean of 3.13 which indicated that there is a positive association between family structure and teenage pregnancy

## **DISCUSSION OF FINDINGS**

As the result shown in Table 1 indicates there is a negative association between parental educational level and teenage pregnancy. The result that parental educational level is negatively associated with teenage pregnancy is obtained because the respondents showed that parents who are educated can guide their children from becoming pregnant, provide them with adequate sex education that prevents teenage pregnancy, as well as make them less vulnerable to false sexual information that gets them pregnant. Furthermore, the grand mean shown in the same table indicates that respondents confirmed that when the parental educational level is high, teenagers do not easily succumb to teenage pregnancy. This result is not surprising as most female teenagers whose parents are educated provide them with adequate sexuality education. Furthermore, educated parents are more open to discussing sexually related topics with their children than uneducated parents in the area where this study was conducted. This result is similar to that obtained by Singh et al (2001) in Canada.

Based on the result obtained in Table 2, it is evident that parental income has a negative association with teenage pregnancy in Obio-Akpor Local Government Area of Rivers State. The response provided in the mentioned table shows that most teenagers get pregnant when their parents cannot afford to get their basic need. Furthermore, the result showed that teenagers from rich homes are often placed under surveillance and spend less time outside the home as most of the things they need are found within the house. This result that parental income is negatively associated with teenage pregnancy is not surprising but expected because when a teenager has access to what they need in the home, they are less likely to spend much time outside. Furthermore, most teenagers get pregnant as a result of financial enticement from older males due to the inability of their parents to meet their needs. This result is similar to that obtained by Young et al (2004) who found out that there was a greater incidence of teenage pregnancy among poor income earners than among high-income earners.

The result of the analysis as shown in Table 3, showed that family structure has a significant effect on the extent of teenage pregnancy in Obio-Akpor Local Government Area of Rivers State. This result, therefore, confirms that Teenagers from broken homes are prone to be teenage mothers, broken homes cause greater teenage pregnancy, absence of one parent leads to a greater incidence of teenage pregnancy, it is very difficult for one parent to be able to prevent teenage pregnancy, teenage who involve in more sex are likelier to be pregnant. This result is very surprising to this researcher because it is assumed that students from one-parent home would lack adequate parental vigilance and may therefore take this opportunity to involve more in premarital sex which results in teenage pregnancy. However, this result may have been possible due to the extended family system that is obtainable in the local of study. It is, therefore, possible that the respondents irrespective of their family structure would enjoy a similar network of extended family to support them. The result of this study is similar to that obtained by Fergusson and Woodward (2000) who found out that among teenage mothers in New Zealand, those living with only one parent are 45% more likely to get pregnant before they turn 18 than those from intact families.

## **RECOMMENDATION**

From the result obtained, it was recommended that

1. Generally, students should be exposed to sexuality education at an early age to prevent some of them from becoming teenage mothers
2. Parents should be free to discuss issues of health and sexuality with their students so that there can adequately understand how to prevent themselves from the snare of teenage pregnancy.
3. Peer group associations and clubs which promote adaptive behaviour and wholesome heterosexual relationship should be established in school were teenagers can learn communication skills better
4. Regular talks and seminar should be conducted during school session with parents to enable them to understand that their status both educationally and otherwise can aid their children sexual and reproductive development.
5. The school should identify teenagers who have been pregnant and integrate them back to school

so that they can be productive members of society.

## REFERENCES

- Adesomowo, P.O. (1988). Prevalence of problems adolescents consider appropriate for counselling: An investigation. *Journal of Educational Psychology*, 3 (1), 102-106.
- Akinsanya, O. O., Ajayi, K. O. & Salomi, M. O. (2011). Relative effects of parental occupation, qualification and academic motivation of wards on students' achievement in senior secondary school mathematics in Ogun State. *British Journal of Arts and Social Sciences*, 3(2), 242 -252.
- Alubo, O. (2001) Adolescent reproductive health practices in Nigeria. *African Journal of Reproductive Health*, 5 (3)109-119.
- Biddlecom, A., Awusabo-Asare, K., & Bankole, A. (2009). Role of parents in adolescent sexual activity and contraceptive use in four African countries. *International perspectives on sexual and reproductive health*, 35(2), 72–81. <https://doi.org/10.1363/ipsrh.35.072.09>
- Buhi, E. R., & Goodson, P. (2007). Predictors of adolescent sexual behavior and intention: a theory-guided systematic review. *The Journal of adolescent health: official publication of the Society for Adolescent Medicine*, 40(1), 4–21. <https://doi.org/10.1016/j.jadohealth.2006.09.027>
- Cancian, M. (2009). *Family structure, childbearing and parental employment: Implication for the level and trend in poverty*. Retrieved from [www.irp.wisc.edu/focus/pdfs](http://www.irp.wisc.edu/focus/pdfs)
- Eriega, E. G. (2010). Psychosocial determinants of school adjustment among secondary school students. *Ibadan Journal of Counselling*, 23 (2), 143-158.
- Fadeyi, F. L (2008). The children of teenage mothers: Patterns of early childbearing in the generations. *Family Planning Prospects*, 22(2) 54-61.
- Fergusson, D. M. & Woodward, L. J. (2000). Teenage pregnancy and female educational underachievement: A prospective study of New Zealand birth cohort. *Journal of Marriage and Family*, 62 (1), 147-161.
- Gyan, C. (2013). The effect of teenage pregnancy on the educational attainment of girls at Chorkor, a suburb of Accra. *Journal of Education and Social Research*, 3 (3), 53-61.
- Melgosa, J. (2001). *To adolescents and parents*. Spain; Marpa Artes Graficas.
- Mollborn, S. (2007), Making the best of a bad situation. Materials resources and teenage parenthood. *Journal of Marriage and Family*, 69 (1) 92 – 104.
- Morgan, C. Chaper, G. N. & Fisher, M. (1995). Psychosocial variables associated with teenage pregnancy. *Adolescence*. 30 (118):277-289
- Nwosu, A.N. (2005). *Effects of health education on the reproductive health behaviour of in-school adolescent girls in Enugu*. Unpublished doctoral dissertation, University of Nigeria, Enugu campus.
- Onuzulike, N.M. (2003). *Adolescent pregnancy: Issues and prevention strategies*. Paper presented at the annual conference of the Nigeria Association of Health Education Teachers (NAHET) at Awka.
- Ozoemena, L. E. (2008). *Teenage pregnancy patterns and associated factors in Igbo-Etiti LGA of Enugu State*. University of Nigeria, Nsukka: Unpublished M.ed Thesis
- Passer, M. W. & Smith, R. E. (2008). *Psychology: The science of mind and behaviour* (4<sup>th</sup> ed). New York: McGraw-Hill
- Singh, S. Darroch, J. E. & Frost, J. J. (2001). Socioeconomic disadvantage and adolescents women's sexual and reproductive behaviour: The case of five developed countries. *Family Planning Perspectives*, 33 (6), 251-258.
- Sturgeon, S. W. (2008). *The relationship between family structures and adolescent sexual activity*. Massachusetts: Heritage Foundation
- Ukekwe, E.N. (2001). *Strategies for the prevention of adolescent pregnancy among secondary school students in Abia State*. Unpublished Master's thesis, University of Nigeria, Nsukka.
- World Health Organization (2014). *Adolescents' health*: Retrieved from [www.who.int/topics/adolescent\\_health/en](http://www.who.int/topics/adolescent_health/en)