

## Prevalence Of Unintended Pregnancy Among Female Adolescents In Anambra State: Its Risk And Protective Factors

Christian Okechukwu Aleke<sup>1\*</sup>, Patrick Eni Eluu<sup>2</sup>, Michael Okereke Olom<sup>3</sup>, Eunice N. Afoke<sup>1</sup>, Chinedu Nwankwo<sup>4</sup>, Basil Chisom Igwe<sup>1</sup>, Joy Anulika Ogbu<sup>5</sup>, Ugbor-Aku Mercy Eberechi<sup>6</sup>, Omaka God'slove Oko<sup>1</sup>, Joy Anulika Alo<sup>1</sup>, Chidinma E. Obinma<sup>1</sup>

<sup>1</sup>Department of Human Kinetics and Health Education, Ebonyi State University, Abakaliki, Nigeria

<sup>2</sup>Department of Arts and Social Science Education, Ebonyi State University, Abakaliki, Nigeria

<sup>3</sup>Department of Human Kinetics and Health Education, University of Calabar, Cross River State, Nigeria.

<sup>4</sup>Center for Disease Control, Federal Medical Center, Asaba, Delta State, Nigeria.

<sup>5</sup>Department of Business Education, Ebonyi State University, Abakaliki, Nigeria

<sup>6</sup>Department of Technology and Vocational Education, Ebonyi State University, Abakaliki, Nigeria

\*Corresponding Author:

Email: [christian.aleke2020@gmail.com](mailto:christian.aleke2020@gmail.com)

---

### Abstract.

*Pregnancy is usually a God blessings and welcome development when it occurs at the appropriate time during wedlock and among couples in marriage. On the contrary, it may trigger a serious health, social and economic consequences if it occurs unintended, outside of wedlock or during the adolescent's secondary schools. The study explored prevalence of unintended pregnancy among female adolescents in Anambra State: Its Risk and Protective Factors. This was cross-sectional quantitative survey research design conducted among 240 female adolescents/adults in Anambra state. A semi structured questionnaire using purposive/ convenience sampling was the instrument and sampling method used for data collection. The analysis of data was done using mean (x) and standard deviation to answer the research questions, and t-test statistics to test the hypothesis at 0.05 level of significance. The results shows that the prevalence of unintended pregnancy was 12.0%. Poverty level (3.70), Pressure from peers to have sex" (3.60), Poor parental supervision (2.09) were the risk factors. The protective factors amongst others were that parents should be educated through seminars on the importance of discussing sexuality and the dangers of premarital sex with their children especially the females (98.3%). The findings underscore the need for proper education and parental intervention of the female adolescents and as well increased awareness on the use of contraceptive, so as to bridge the large gap of unmet need.*

**Keywords:** Health; Pregnancy; pregnancy among female and contraceptive.

---

## I. INTRODUCTION

Unintended pregnancy among female adolescents is a significant social and public health concern that affects both developed and developing countries including Nigeria (Alukagberie, et al., 2023; Ayamolowo et al., 2024). Research have revealed a global prevalences rate of 62 (59-72) unintended pregnancies per 1000 women aged 15-44 per year, of these unintended pregnancies, 56% were attributed to abortions (Alukagberie, et al., 2023; Onivogui, Coulibaly et al., 2024). According to the World Health Organization (WHO), 4.7% to 13.2% of maternal deaths are recorded each year worldwide from unsafe abortions, however, most of these abortions were associated with unintended pregnancies (Onivogui et al., 2024). An unintended pregnancy refers to a pregnancy that is unwanted or occurs earlier than desired, happening when no children are wanted at that time (Santelli, 2003). Such pregnancies often occur among adolescent girls and their partners when family planning methods are not used or are used incorrectly or either through coerced sex, rape (Arnold and Coyne, 2020). Studies have attributed unintended pregnancy to several risk factors ranging from early marriage, rural residence, religion, low social and economic support for girls, curiosity, peer pressure, lack of comprehensive sexuality education and unmet need for contraceptive methods (Onivogui, Coulibaly et al., 2024). However, the primary risk factor for unintended pregnancy is the non-use or ineffective use of contraceptive methods. In many cases, this is due to a lack of

knowledge, negative attitudes towards contraception, or barriers to access, particularly among specific groups like young, unmarried, and poor individuals (Yakubu, Salisu, 2018; Onivogui, Coulibaly et al., 2024).

Research has documented those African countries is leading the world in adolescent/adult pregnancy (Alukagberie, et al., 2023). Moreover, in the sub-Saharan African Region, the pooled prevalence of adolescent pregnancy is 19.3%, with East Africa having the lowest prevalence (21.5%) and Northern Africa having the highest (99.2%) (Alukagberie, et al., 2023). The spatial distribution of adolescent pregnancy in Nigeria ranges from zero to 66.67%, with the North having the highest prevalence (Bolarinwa, et al., 2022). Although, adolescent pregnancy in Nigeria occur in union and are intended (an estimated 44% of girls in Nigeria are married before their 18th birthday, and the country ranked the 11th in the world for child marriage (Alukagberie, et al., 2023). Nevertheless, studies have revealed the several unintended pregnancies among adolescents/adults in Nigeria and attributed it to certain factors like early onset of menarche, early initiation of sexual activity, early marriage, ineffective use of contraception, and limited access to comprehensive sexual education (Ayamolowo, et 2024; Onivogui, Coulibaly et al., 2024). Several health consequences have been linked to unintended pregnancy (Oni et al., 2005). This include such health risks as complications during pregnancy or delivery and secondary infertility if an abortion is involved. In addition, the possibility of dropping out of school is considerable which results in a lack of educational qualifications leading to unemployment. Mngoma (2010) noted that unintended pregnancy among adolescents in secondary school is considered to be a dangerous phenomenon ravaging most people across the globe.

In Nigeria particularly in Anambra state, the situation is worrisome thus, unwanted pregnancy among adolescents is observed to be increasing in a dangerous dimension and calls for research to unravel the actual prevalence, risk and protective factors among adolescents' girls (Devenish, Funnell and Greathead, 2014). The schools' girls who got pregnant while in school are often nervous as they cannot solve the problem and their parents may not accept them and the pregnancy. Some may finally seek illegal abortion which can cause their lives; even when they do not terminate the pregnancy, some of them maybe too young to give birth and have health complications that may result to death. The above-mentioned scenarios have prompted the current research to determine the prevalence of unintended Pregnancy among Female secondary school adolescents in Anambra State, ascertain the consequences of unintended pregnancy, the risk factors and protective Factors among secondary school adolescents in Anambra State. The findings of this study would be beneficial to parents, students and school authority, First, it would help parents to build a better future for their wards by educating their children on sex education, provision of their ward basic needs and most importantly monitoring and close supervision of the type of friends that their children keep. Secondly, it would help the students most especially the schoolgirl to understand the danger associated with unwanted pregnancy and desist from premarital sexual and as well as avoid any influence that might lead them to unintended pregnancy. The study would as well help the school authority to always educate and emphasis the danger inherent in premarital sexual behavior and make it a compulsory subject in secondary school and as well as give out a strict punishment on those that are caught engaging in premarital sexual activities.

### **Theoretical Framework**

This work was anchored on theory in order to understand the subject matter. The theory include precaution-adoption process model/theory propounded by Weinstein (1992). According to Weinstein, the process of adopting precaution against any diseases or incapacitation consists of seven distinct stages between ignorance and completed preventive action. These stages are unaware of the issue, aware of the issue but not personally engaged, engaged and deciding what to do, planning to act but not yet acted, having not to act, acting and maintenance. This theory, he asserted, represent different patterns of behavior and beliefs that produce transitions depending on the transition being considered. Weinstein posited that adolescent pregnancy is therefore an outcome of behavior and belief by adolescents either to engage or not to engage in risky sexual behaviors. Wale (2024) is of the opinion that the adolescent years are characterized by weak value system, poor decision-making powers, poor information and communication with parents and other authority figures about sex. She opined that adolescent need skills that will help them take decisions and negotiate safe sex with confidence. The relevance of this theory towards this research is that it will help

the parents in particular and teachers in general to understand that students need to understand the dangers associated with indulging in sex and adequate information on sex education should be adequately thought in order to help adolescents take right decision, desist from sex and as well negotiate safe sex (Rzechowska, 2025).

## **II. METHODS**

### **Research Design**

The research design adopted for this study was survey design. This study adopted descriptive survey design to examine the prevalence of unintended pregnancy among secondary school adolescents in Anambra State. According to Uzoagulu (2011) a research design is a plan or blue print which specifies how data relating to a given problem should be collected and analyzed; it provides the procedural outline for the conduct of any given investigation.

### **Area of the Study**

The study is carried out in Idemili North is a Local Government Area of Anambra State, Nigeria. Towns that make up the local government are Onitsha, Abatete, Eziowelle, Ideani, Nkpor, Obosi, Ogidi, Oraukwu, Uke, and Umuoji. The reason for choosing the study areas is because of the familiarity of the secondary schools located within.

### **Population of the Study**

The population of the study comprised all female secondary school adolescents in Idemili North Local Government Area, Anambra State totaling 50000 female students (Idemili North LGA 2021).

### **Sample and Sampling Techniques**

The sample for the study consisted of (240) female secondary school adolescents. This signified two per cent of the population. Two per cent chosen was considered adequate as it conformed to the rule of the thumbs stated by Nwana (2008). The rule of the thumbs indicated that when a population under study is in several thousands, 2 – 5 per cent of the population should be considered. Purposive/convenience sampling was the sampling method used for data collection. Eight (8) secondary schools were selected from nineteen (19) public secondary schools in the sample area using purposive/convenience sampling. Two Hundred and Forty (240) respondents comprising of students and teachers were selected from the eight public secondary schools. A total number of thirty (30) respondents were selected from each of the eight (8) schools sampled, making a total sample size of two hundred and forty (240).

### **Instrument for Data Collection**

The instrument adopted for the data collection was a questionnaire. It consisted of twenty (20) structured items designed to elicit information in line with the research question formulated for the study. The questionnaire was made up of two sections (sections “A” and “B”) Section “A” consisted of personal data of the respondents, while “B” comprised twenty (20) items. The questionnaire was developed on a four-point rating scale as follows: Strongly Agree SA = 4 point, Agree A = 3 points, Disagree D = 2 points, Strongly Disagree SD= 1 point

### **Validation of the Instrument**

The instrument was submitted for face and content validity to three (3) experts. Two from the Department of Human Kinetics and Health Education and one expert in the area of Measurement and Evaluation, all from Ebonyi State University, Abakaliki. Their corrections and comments helped the researcher in making the final draft of the instrument.

### **Reliability of the Instrument**

One of the easiest ways to determine the reliability of empirical measurements is by the test-retest method in which the same test is given to the same people after a period of time. The reliability of the test (instrument) can be estimated by examining the consistency of the responses between the two tests. To obtain the reliability of the instrument, it was subjected to trial study. The same questionnaires were administered to selected respondents from schools in Idemili North Local Government Area of Anambra State. Twenty (20) principals were for pilot study of reliability co-

efficient of the instrument. The researcher computed the test-retest reliability co-efficient of the instrument to be 0.78 using Pearson Moment correlated co-efficient.

### Method of Data Collection

The researcher visited different schools concerned to personally administer the questionnaire to the respondents. The two hundred and forty (240) copies of questionnaires were distributed to the respondents with the help of the class teachers and there was maximum return.

### Method of Data Analysis

All the data generated and properly filled was analyzed using IBM SPSS version 25 (Statistical Package for Social Science). The Overall percentages, Mean, and Standard Deviation were used in taking decisions.

## III. RESULTS AND DISCUSSION

This chapter presents the results of the study. Two hundred and forty (240) copies of questionnaire were administered; two hundred and thirty-five were returned (235) and were properly filled and fit for analysis. Therefore, the return rate was 97.9%. The result of the analysis was presented with tables.

**Table 1.** Prevalence Of Unintended Pregnancy Among Secondary School Adolescents in Anambra State  $N = 235$

Prevalence of Unintended Pregnancy	n	Yes (%)	No (%)
I have Ever had unintended pregnancy	133	16 (12.0)	117 (88.0)
The father of the child never wanted me to be pregnant for him	16	4 (25.0)	12 (75.0)
The father of the child and I had discussed having children together but hadn't agreed for me to be pregnant	16	7 (43.8)	9 (56.3)
We never discussed having child(ren) together	16	9 (56.3)	7 (43.8)

The table 1 shows that the prevalence of unintended pregnancy among secondary school adolescents in Anambra State. The result shows that out of 133 that have had sexual intercourse before, 16 (12.0%) have had unintended pregnancy. Therefore, the prevalence of unintended pregnancy 12.0%. Specifically, out of the 16 that have had unintended pregnancy, 4 (25.0%) indicated that the father of the child never wanted me to be pregnant for him, 7 (43.8%) discussed of having children with the father but hadn't agreed for her to be pregnant, and 9 (56.3%) have never discussed having child(ren) together.

**Table 2.** Risk Factors Associated with Unintended Pregnancy among Secondary School Adolescents in Idemili North Local Government Area,  $N = 235$

Risk factors associated with unintended pregnancy	Mean±SD	Dec
Poverty level among secondary school adolescents	3.70±0.65	Acc.
Poor knowledge of contraceptive use among secondary school adolescents	1.82±1.99	Rej.
Pressure from peers to have sex	3.60±0.69	Acc
Poor parental supervision among secondary school adolescents	2.09±1.91	Rej
Being a victim of rape	1.82±1.99	Rej.

Table 2 shows the result of the risk factors associated with unintended pregnancy. Their response was rated in a 4-point likert scale with mean acceptance criterion of 2.5, two out of the five items were accepted with their weighted mean more than 2.50, those items were, "Poverty level among secondary school adolescents" (3.70), and "Pressure from peers to have sex" (3.60), other item near acceptance but rejected was, "Poor parental supervision among secondary school adolescents" (2.09).

**Table 3.** Consequences of Unintended Pregnancy among Secondary School Adolescents in Idemili North Local Government Area  $N = 235$

Consequences of unintended pregnancy	Mean±SD	Dec
School drop-out among secondary school adolescents	3.70±0.57	Acc.
Early pregnancy	3.44±0.86	Acc.
Sexually transmitted infections	2.32±1.67	Rej.
Suicide attempt	1.85±2.00	Rej
Stigmatization	3.72±0.54	Acc.
Psychological trauma	3.79±0.48	Acc.

Table 3 shows the result of the consequences of unintended pregnancy were presented in table 4.5. Their response were rated in a 4-point likert scale with mean acceptance criterion of 2.5, four out of the six items were accepted with their weighted mean more than 2.50, those items were, "School drop-out among

secondary school adolescents” (3.70), “Early pregnancy” (3.44), “Stigmatization” (3.72, and “Psychological trauma” (3.79), other item near acceptance but rejected was, “Sexually transmitted infections” (2.32), and “Suicide attempt” (1.85).

**Table 3.** Protective Factors for Unintended Pregnancy among Secondary School Adolescents in Idemili North Local Government Area N = 235

Protective factors for unintended Pregnancy	Yes (%)	No (%)
Should parents be educated through seminars on the importance of discussing sexuality and the dangers of premarital sex with their children especially the females?	231 (98.3)	4 (1.7)
Should religious leaders tackle the problem of unintended pregnancies through moral instructions in churches?	212 (90.2)	23 (9.8)
Should teaching of sex and sexuality education be made compulsory in all schools to help adolescents abstain from sex and understand the danger associated in engaging in sex?	54 (23.0)	181 (77.0)
Should programmes aimed at educating adolescents on sexuality and sex education be introduced into the school curricula?	187 (79.6)	48 (20.4)
Should health educators/ counselors be employed in schools to take care of this sex education?	87 (37.0)	148 (63.0)

Table 4 shows the result of the protective factors for unintended pregnancy among secondary school adolescents were presented in table 4.6. More than ninety percent 231 (98.3%) of the students were that parents should be educated through seminars on the importance of discussing sexuality and the dangers of premarital sex with their children especially the females, 212 (0.2%) of the participants were that religious leaders should tackle the problem of unintended pregnancies through moral instructions in churches. More so, 187 (79.6%) were that programmes aimed at educating adolescents on sexuality and sex education should be introduced into the school curricula. However, majority of the participants 181 (77.0%) were negative when asked if, teaching of sex and sexuality education be made compulsory in all schools to help adolescents abstain from sex and understand the danger associated in engaging in sex. Again, fewer than fifty percent, 87 (37.0%) were that health educators/ counselors should be employed in schools to take up sexuality education.

### Discussions

Findings indicate the prevalence of (12.0%) unintended pregnancy among secondary school adolescents in Anambra State. This finding is line with Townsend and Worobey (2008) who stated that adolescents from broken homes are more sexually permissive than those from stable homes. They opined that daughters of divorced mothers and adolescents from broken homes end up experiencing sexual intercourse without the use of contraceptive which eventually culminated to unintended pregnancies (Onivogui, Coulibaly et al., 2024). Edelman (2009) stated that adolescences pregnancies occurred due to lack of basic skills needed for economic self-sufficiency, negative adult role models and non-accessibility to contraception and reproductive health information (Onivogui, Coulibaly et al., 2024). The findings further showed that the participants have had sexual intercourse before and had unintended pregnancy which were not in agreement with the father of the child to be pregnant at the time. The findings agree with the position of Paul and Hayes (2002) which stated that when some parents would grief and worry about the future of such girls, some other parents would feel a sense of guilt at the thought that they had failed in their responsibility and could have done more to protect their child from this predicament (Rzechowska, 2025).).

On the one hand, some parents felt embarrassed by their adolescence pregnancy and worried about how family, friends and neighbours would react (Onivogui, Coulibaly et al., 2024). This position was consistent with that of Nava (2012) who found that such adolescence parents were gossiped about and the affected adolescence seen as bad influence. On the other hand, others were happy about the news of a soon to-be grandmother especially if the adolescent is older and in a mature relationship. They may also expect a great deal of pleasure from their new grandchild. The results of the risk factors associated with unintended pregnancy are as follows: poverty level among secondary school adolescents, pressure from peers to have sex and poor parental supervision among secondary school adolescents. The findings agree with the position of Ikamari, Izugbara and Ochako, (2018) that adolescents in rural secondary schools engaged in premarital sex out of curiosity and to gain sexual experience while others had premarital sex due to peer pressure as a



test of virility. Many adolescents had no propensity for misconceptions and myths provided by friends and relatives. Therefore, low level of knowledge and negative attitude about Sexual Reproductive Health exposed adolescents to unprotected sex, leading to unplanned pregnancy (Onivogui, Coulibaly et al., 2024).

The present study findings of protective factors for unintended pregnancy among secondary school adolescents are as follows: parents should be educated through seminars on the importance of discussing sexuality and the dangers of premarital sex with their children especially the females; that religious leaders should tackle the problem of unintended pregnancies through moral instructions in churches and programmes aimed at educating adolescents on sexuality and sex education should be introduced into the school curricula. The findings agree with the study which noted that at the relationship level, parents, caring adults can be important sources of support for pregnant mothers (Pfeiffer, et al. 2017). Parenting competencies affect the quality of infant-mother relationships and young mothers' ability to properly feed and care for their infants (Alukagberie, et al., 2023). Positive parent-child interactions are associated with higher levels of cognitive competence among preschool age children and other positive outcomes for both the adolescent mother and the child. The nurturance and support that adolescent mothers receive from their own parents is also associated with positive outcomes. The presence of a caring adult is an important protective factor for many pregnant adolescents.

#### IV. CONCLUSIONS

The study investigated Prevalence of Unintended Pregnancy among Female Adolescents in Anambra State, its Risk and Protective Factors. The study found that among other things the prevalence of Unintended Pregnancy among Female Adolescents in Anambra State. The risk factors associated with unintended pregnancy among Secondary School Adolescents, and the protective factors for unintended pregnancy among secondary school adolescents. It is the belief of the researcher that if the protective factors recommended in this study are carried out, that it will help adolescents to desist from engaging in pre-marital sex which will invariably reduce unintended pregnancy among the adolescents.

#### REFERENCES

- [1] Alukagberie, M.E., Elmusharaf, K., Ibrahim, N. et al. (2023). Factors associated with adolescent pregnancy and public health interventions to address in Nigeria: a scoping review. *Reprod Health* **20**, 95. <https://doi.org/10.1186/s12978-023-01629-5>
- [2] Onivogui D., Coulibaly A., Kouanda S. & Dahourou DL. (2024). Prevalence and factors associated with unintended pregnancies in teenagers and young women in eight Sub-Saharan African countries: Evidence from Performance Monitoring and Accountability cross-sectional surveys, (2017-2018); *Journal of Interventional Epidemiology and Public Health*. 2024;7:54.
- [3] Santelli J, Rochat R, Hatfield-Timajchy K, Gilbert BC, Curtis K, Cabral R, Hirsch JS. & Schieve L. (2003). Unintended Pregnancy Working Group. The measurement and meaning of unintended pregnancy. *Perspect Sex Reprod Health*. Mar-Apr;35(2):94-101. doi: 10.1363/3509403. PMID: 12729139.
- [4] Arnold O.M. & Coyne I. (2020). Brief report on a systematic review and meta analysis of early childhood educational programming and teenage pregnancy prevention. *J. Adolesc.* 2020: 84:149–55. doi.10.1016/j.adolescent. 08.008
- [5] Yakubu, I. & Salisu, W.J. (2018). Determinants of adolescent pregnancy in sub-Saharan Africa: a systematic review. *Reprod Health* **15**, 15. <https://doi.org/10.1186/s12978-018-0460-4>
- [6] Bolarinwa, O.A., Tessema, Z.T., Frimpong, J.B. et al. (2022). Spatial distribution and factors associated with adolescent pregnancy in Nigeria: a multi-level analysis. *Arch Public Health* **80**, 43 <https://doi.org/10.1186/s13690-022-00789-3>
- [7] Ayamolowo, L.B., Ayamolowo, S.J., Adelakun, D.O. et al. (2024). Factors influencing unintended pregnancy and abortion among unmarried young people in Nigeria: a scoping review. *BMC Public Health* **24**, 1494. <https://doi.org/10.1186/s12889-024-19005-8>
- [8] Oni, L.S., Prinsloo, J.F., Nordje, S and Joubert, M. (2005). The risk of adolescent pregnancy in the first months of intercourse. *Family planning perspective* 11, 215-222.
- [9] Mngoma, L.S. (2010). The school based- approach to teen pregnancy prevention. *Planned parenthood review* 6(2), 8-10.

- [10] Devenish, N, Funnell, E. and Grealead, T. (2014). *The adolescent: an educational perspective*. Pretoria: Butterworth.
- [11] Weinstein ND, Sandman PM. (1992). A model of the precaution adoption process: evidence from home radon testing. *Health Psychol.*,11(3):170-80. doi: 10.1037//0278-6133.11.3.170. PMID: 1618171.
- [12] Wale, F. (2024). "Closing the Know-Do Gap in Global Health in Sub-Saharan Africa: A Critical Scoping Review of Knowledge Translation Practices in Global Health Research Partnerships. "Electronic Thesis and Dissertation Repository. 10141. <https://ir.lib.uwo.ca/etd/10141>
- [13] Rzechowska, E. (2025). The Development of Responsibility in Teenage Mothers: A Qualitative Model. *Ment Health Hum Resilience Int J.*, 9(1): 0002
- [14] Uzoagulu, A. E. (2011). *Practical Guide to Writing Research Project Report in Tertiary Institutions*. Enugu Cheston Publishers.
- [15] Nwana, O. C. (2008). Introduction to Educational Research (Revised Edition) HEBN publishers Plc, Ibadan.
- [16] Townsend, R. and Worobey, H.J. (2008). Problems related to school girl pregnancies in Burkina faso. *Studies in family planning*, 24 (5), 283-284.
- [17] Edelman, M.W. (2009). *Better life option for young women*. Washington D.C: Center for development and population activities.
- [18] Paul, B. and Hayes, D. (2002). Temporal trends and geographic patterns of teen suicide in Alaska, 1979-1993. *Journal of the American Association of Suicidology*, 27 (3), 264.
- [19] Hanna, M. M. (2012). Home and videotape intervention delays early complementary feeding among adolescent mothers. *Pediatrics*, 107(5), E67.
- [20] Ikamari, J. (2018). Initiation of coitus in early adolescence. *American sociology review* 52(6), 97-100.
- [21] Pfeiffer, C., Ahorlu, C.K., Alba, S. et al. (2017). Understanding resilience of female adolescents towards teenage pregnancy: a cross-sectional survey in Dar es Salaam, Tanzania. *Reprod Health* 14, 77. <https://doi.org/10.1186/s12978-017-0338-x>.