

Knowledge of Effects of Teenage Pregnancy among Teenagers in Nasarawa Eggon Local Government Area of Nasarawa State, Nigeria

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Abstract

Teenage pregnancy is a high risk event projected to increase by 2030 majorly in Africa. Knowledge of effects of teenage pregnancy becomes important in creating awareness on adverse health, socio-emotional, developmental, and economic implications of teenage pregnancy. The study assessed knowledge of effects of teenage pregnancy among teenagers in Nassarawa Eggon Local Government Area (LGA), Nasarawa State. Five research questions and four null hypotheses guided the study. Cross-sectional research design was adopted for the study. Population consisted of 34,140 teenagers in Eggon LGA. A sample size of 450 teenagers was randomly selected for the study. Researchers' structured questionnaire, Knowledge of Effects of Teenage Pregnancy Questionnaire (KETPQ) was used for data collection. The validated KETPQ was tested for internal consistency, which yielded a reliability index of .780 with split half method (Spearman Brown coefficient correlation). Data analysis was done using frequency and percentage to answer the research questions, and chi-square statistics to test the null hypotheses at .05 alpha level. Results revealed that teenagers had very high knowledge of the effects of teenage pregnancy (88.5%). Education level ($\chi^2 = 38.667, p = .000 < .05$) and location ($\chi^2 = 5.442, p = .020 < .05$) were significantly associated with knowledge of effects of teenage pregnancy among teenagers. The authors recommended that high level of knowledge of effects of teenage pregnancy needs to be sustained by maintaining informative mediums.

Keywords: Teenage pregnancy, Knowledge, Teenagers, Effect

Introduction

Early childbearing can have severe consequences on the health, education, social, emotional and general development of an adolescent girl. As a result, teenage pregnancy has been of public health concern because of its prevalence. United Nations Children's Fund (UNICEF, 2022) reported that globally in 2021, an estimated 14 per cent of adolescent girls and young women give birth before the age of 18 years and that adolescent girls, especially those in early adolescence, are particularly vulnerable to the health consequences of pregnancy and delivery. The World Health Organization (WHO, 2020) reported that about 10 million unintended pregnancies occur each year among adolescent girls in the developing world. Sully et al. (2020) stated that every year, an estimated 21 million girls aged 15-19 years in developing regions become pregnant and approximately 12 million of them give birth. Kassa, Arowojolu, Odukogbe, and Alemayehu (2018) reported a prevalence rate of 19.3% in Africa which was higher than the global overall prevalence of adolescent pregnancy (18.8%). Specifically, Sub-Saharan Africa have highest rate at 101 births per 1000 women in 2021 (United Nations Department of Economic and Social Affairs, 2021). Terefe (2022)

reported 13.42 per cent of pregnancy and early motherhood among late adolescent Gambian girls. In Nigeria, Multiple Indicator Cluster Survey reported by National Bureau of Statistics and United Nations Children's Fund (2017) found that 19.2 per cent of young women aged 15-19 years had started having children with 3.1 per cent having their first birth before 15 years. The National Demographic and Health Survey reported by National Population Commission (NPC) and ICF (2019) showed that 19 per cent of adolescents were already giving birth. Edukugbo (2015) reported that the Northern Nigerian States have the highest rate of teenage pregnancy, and this rate points out the state of wellbeing of the entire population (Akpore & Thupayagale-Tshweneagae, 2019).

Teenage pregnancy is a threat to well being of the teenager and the society as well. The UNICEF (2008) defined teenage pregnancy as a pregnancy in girls within the ages of 13-19 years. Alabi and Oni (2017) stated that teenage pregnancy is a case of an under-aged girl who has not reached legal adulthood, usually within ages of 13-19 years becoming pregnant. Akpor and Thupayagale-Tshweneagae (2019) referred to the rate of teenage pregnancy in Nigeria as a social health burden. Teenage also known as adolescence refers to a spectacular phase in the development of an individual and a formative stage in the cycle of life found after the first decade of life. Teenagers are primary recipients of effects of teenage pregnancy, thus studying their knowledge of its effects, provides fundamental basis for formulation of strategies, interventions, and campaigns to effectively reduce teenage pregnancy to its barest minimum as the teenage years are characterized with diverse developmental changes physically, intellectually, hormonally, and socially. Teens experience a spurge of emotions which could be a consequence of several major morphological and functional changes that occur in the human brain during adolescence (Arain et al., 2013). Significant development takes place in sexual and reproductive systems of teenagers, which means they can be involved in sexual activities leading to pregnancy.

Teenage pregnancy is a cankerworm that has eaten deep into the fabrics of the society. According to Ayuba and Gani (2012), the effects of teenage pregnancy can be in form of grievous physical consequences, as well as leaving teenage mothers unmarried, poor and uneducated. The study further listed more unwanted pregnancies and out-of-wedlock children, greater marital instability, poor education, fewer assets and lower income as effects of teenage pregnancy. Some other effects of teenage pregnancy may include: school drop-out, inadequate care for the child born by teenage mother, health problems amongst other undesirable vices (Alabi & Oni, 2017). According to Akpor and Thupayagale-Tshweneagae (2019), the effects of teenage pregnancy tell on the teenage mother and her child, the whole family system, and the community at large. The education of the teenager involved could be jeopardized.

Studies indicated that the Northern Nigeria has the highest rate of teenage pregnancy. Nasarawa State being a Northern State is not left out. Ogundipe (2020) observed that gender-based violence and teenage pregnancy are issues affecting Eggon LGA. There are sights of school age teenagers carrying pregnancies, or being involved in harmful sexual activities in Eggon. Gender-based violence appears to be prevalent in Nasarawa State. This occurrence has lent to the increasing records of teenage pregnancy in the State. During the COVID-19 lockdown, reports of increased teenage pregnancy were recorded in Nasarawa Eggon LGA. This increasing rate could be related to a knowledge gap. The question now arises as to what is the level of knowledge of effects of teenage pregnancy among teenagers in Nasarawa Eggon Local Government Area, Nasarawa State and based on socio-demographic variables of gender, level of education, and location? Also, the study assessed significant association between knowledge of effects of teenage pregnancy among teenagers and socio-demographic variables of gender, level of education, and location.

Methods

Research Design: The cross-sectional survey research design was used in this study. Cross-sectional survey research design collects data to make inferences about characteristics of a selected population at one point in time.

Area of the Study: The area of the study was Nasarawa Eggon Local Government Area, Nasarawa State. The location is predominantly occupied by Eggon people who speak the Eggon language. The location is known for agricultural crops, such as yam, millet, cowpea, and rice. Also, it is known for the rearing and sales of a number of domestic animals, such as cows and sheep. The people are predominantly farmers (Daniel, 2013). Nasarawa Eggon has gender-based violence and teenage pregnancy as issues affecting the location (Ogundipe, 2020). Therefore, Nasarawa Eggon provides a good location of study for knowledge of effects of teenage pregnancy among teenagers.

Population for the Study: The population for the study consisted of all in-school teenagers in Nasarawa Eggon Local Government Area, Nasarawa State. The estimated population of in-school adolescents in Nasarawa Eggon Local Government Area is 24, 140 (Nasarawa State Primary Health Care Development Agency [NSPHCDA], 2021).

Sample and Sampling Techniques: The sample size was 450 teenagers. This was in line with the guideline of Cohen, Manion, and Morrison (2011) sample size determination random table guideline, that when a population size is 30,000 or above at 95 confidence level (5% interval), the sample size should be at the minimum, 379. Multistage sampling technique was used in the selection of the sample size for the study. The First staged involved use of simple random sampling technique of balloting without replacement to select five communities in the LGA. The second stage involved use of simple random sampling technique of balloting without replacement to select three schools from each of the five selected communities. A total of 15 schools were selected. Thirdly, purposive sampling technique was used to select 30 in-school adolescents (teenagers) aged above 12 years from each of the selected schools. This gave a total of 450 teenagers used in the study.

Instrument for Data Collection: Researchers' structured Knowledge of Effects of Teenage Pregnancy Questionnaire (KETPQ) was used for data collection. The questionnaire was administered to the teenagers. The questionnaire has two sections. Section A contained items that elicited information on the demographic characteristics of the teenagers (gender, education level, and location). Section B contained 10 items that elicited information on knowledge of effects of teenage pregnancy. Section B was assigned response options of Yes and No. the respondents were requested to place a tick (✓) against the option(s) that best applied to them. The KETPQ was validated by three experts from the Department of Human Kinetics and Health Education, University of Nigeria, Nsukka. Split half (Spearman Brown Coefficient Correlation) was used to compute the reliability of the instrument and the reliability index obtained was .780. This was acceptable based on Udegbu (2007), that if a reliability coefficient is .67 and above, the instrument is acceptable for use in a study.

Data Collection: A total of 450 copies of the questionnaire were administered to the respondents by hand for a period of seven days. Out of the 450 questionnaires administered, 399 were properly filled out and returned. This gave a return rate of 88.7 per cent. The 399 questionnaires properly filled out were used for analyses.

Data Analysis: The returned KETPQ were sorted and cleaned for completeness of responses. Data were coded into the Statistical Package for Social Sciences version .23 and analysed

using frequency, percentage, and chi-square statistics. The research questions were answered using percentages, while the null hypotheses were tested using chi-square (χ^2) statistics at .05 level of significance. In determining the level of knowledge of effects of teenage pregnancy, Okafor (1997) guideline was used. This guideline stipulates that below 20 per cent be interpreted as very low knowledge; 20-39 per cent as low knowledge; 40-59 per cent as average/moderate knowledge; 60-79 per cent as high knowledge, and 80 per cent and above as very high knowledge.

Results

Table 1: Responses on Level of Knowledge of Effects of Teenage Pregnancy among Teenagers (n=399)

S/N	Knowledge of Effects	Correct f (%)	Incorrect f (%)
	Do you know:		
1	Pregnancy complications, such as: spontaneous abortion, still birth and pre-term delivery occur more in teenagers?	305(76.4)	94(23.6)
2	Teenage pregnancy can lead to low birth weight?	267(66.9)	132(33.1)
3	Teenage pregnancy predisposes the girl to health conditions, such as vesicovaginal fistula?	313(78.4)	86(21.6)
4	Teenage pregnancy does affect the mental state of the mother?	300(75.2)	99(24.8)
5	Teenage pregnancy may lead to stigmatization of the individual and the family?	302(75.7)	97(24.3)
6	Teenage pregnancy can bring low self-esteem for the teenager?	314(78.7)	85(21.3)
7	Teenage pregnancy reduces concentration on studies of the teenage mother in school?	320(80.2)	79(19.8)
8	Teenage pregnancy can lead to dropping out of school?	326(81.7)	73(18.3)
9	Teenage pregnancy reduces the earning potential of the teenager?	267(66.9)	132(33.1)
10	Teenage pregnancy can jeopardize the future of the teenager?	310(77.7)	89(22.3)
	Overall	85.5	14.5

Key: Below 20% = very low knowledge; 20-39% = low knowledge; 40-59% = Average Knowledge; 60-79% = High Knowledge; 80% & above = Very high Knowledge.

Table 1 shows that overall teenagers in Nasarawa Eggon LGA, Nasarawa State had very high knowledge of effects of teenage pregnancy (88.5%).

Table 2: Responses on Level of Knowledge of Effects of Teenage Pregnancy among Teenagers Based on Gender (n=399)

S/N	Knowledge of Effects	Male n=(177) f (%)	Female n=(222) f (%)
1	Pregnancy complications, such as: spontaneous abortion, still birth and pre-term delivery occur more in teenagers	130(73.4)	175(78.8)
2	Teenage pregnancy can lead to low birth weight	115(65.0)	152(68.5)
3	Teenage pregnancy predisposes the girl to health conditions such as vesicovaginal fistula	137(77.4)	176(79.3)
4	Teenage pregnancy does affect the mental state of the mother	135(76.3)	165(74.3)
5	Teenage pregnancy may lead to stigmatization of the individual and the family	127(71.8)	175(78.8)
6	Teenage pregnancy can bring low self-esteem for the teenager	137(77.4)	177(79.7)
7	Teenage pregnancy reduces concentration on studies of the teenage mother in school	141(79.7)	179(80.6)
8	Teenage pregnancy can lead to dropping out of school	139(78.5)	187(84.2)
9	Teenage pregnancy reduces the earning potential of the teenager	109(61.6)	158(71.2)
10	Teenage pregnancy can jeopardize the future of the teenager	125(70.6)	185(83.3)
	Overall	(81.9)	(88.3)

Table 2 shows that overall female teenagers (88.3%) in Nasarawa Eggon LGA, Nasarawa State had very high knowledge of effects of teenage pregnancy more than the males ((81.9%).

Table 3: Responses on Level of Knowledge of Effects of Teenage Pregnancy among Teenagers Based on Education Level (n=399)

S/N	Knowledge of Effects	No F.Ed. (n=7) f (%)	Pri. Ed. (n=34) f (%)	Sec. Ed. (n=236) f (%)	Tert. Ed. (n=122) f (%)
1	Pregnancy complications, such as: spontaneous abortion, still birth and pre-term delivery occur more in teenagers	3(42.9)	24(70.6)	188(79.7)	90(73.8)
2	Teenage pregnancy can lead to low birth weight	2(28.6)	14(41.2)	163(69.1)	88(72.1)
3	Teenage pregnancy predisposes the girl to health conditions, such as vesicovaginal fistula	2(28.6)	25(73.5)	197(83.5)	89(73.0)
4	Teenage pregnancy does affect the mental state of the mother	4(57.1)	20(58.8)	180(76.3)	96(78.7)
5	Teenage pregnancy may lead to stigmatization of the individual and the family	4(57.1)	19(55.9)	191(80.9)	88(72.1)
6	Teenage pregnancy can bring low	6(85.7)	19(55.9)	198(83.9)	91(74.6)

	self-esteem for the teenager				
7	Teenage pregnancy reduces concentration on studies of the teenage mother in school	3(42.9)	23(67.6)	194(82.2)	100(82.0)
8	Teenage pregnancy can lead to dropping out of school	6(85.7)	26(76.5)	198(83.9)	96(78.7)
9	Teenage pregnancy reduces the earning potential of the teenager	6(85.7)	19(55.9)	175(74.2)	67(54.9)
10	Teenage pregnancy can jeopardize the future of the teenager	6(85.7)	21(61.8)	201(85.2)	82(67.2)
	Overall	(57.1)	(52.9)	(90.7)	(86.1)

Key: No F.Ed.= No Formal Education; Pri. Ed.= Primary Education, Sec. Ed.= Secondary Education; Tert. Ed.= Tertiary Education.

Table 3 shows that overall teenagers with secondary education (90.7%) in Nasarawa Eggon LGA, Nasarawa State had very high knowledge of effects of teenage pregnancy more than those with tertiary education (86.1%), no formal education (57.1%), and primary education (52.9%).

Table 4: Responses on Level of Knowledge of Effects of Teenage Pregnancy among Teenagers Based on Location (n=399)

S/N	Knowledge of Effects	Rural n=(158) f (%)	Urban n=(241) f (%)
1	Pregnancy complications, such as: spontaneous abortion, still birth and pre-term delivery occur more in teenagers	111(70.3)	194(80.5)
2	Teenage pregnancy can lead to low birth weight	104(65.8)	163(67.6)
3	Teenage pregnancy predisposes the girl to health conditions such as vesicovaginal fistula	116(73.4)	197(81.7)
4	Teenage pregnancy does affect the mental state of the mother	110(69.6)	190(78.8)
5	Teenage pregnancy may lead to stigmatization of the individual and the family	105(66.5)	197(81.7)
6	Teenage pregnancy can bring low self-esteem for the teenager	116(73.4)	198(82.2)
7	Teenage pregnancy reduces concentration on studies of the teenage mother in school	115(72.8)	205(85.1)
8	Teenage pregnancy can lead to dropping out of school	116(73.4)	210(87.1)
9	Teenage pregnancy reduces the earning potential of the teenager	111(70.3)	156(64.7)
10	Teenage pregnancy can jeopardize the future of the teenager	114(72.2)	196(81.3)
	Overall	(80.4)	(88.8)

Table 4 shows that the teenagers in Nasarawa Eggon LGA, Nasarawa State located in urban areas (88.8%) had very high knowledge of effects of teenage pregnancy than those located in the rural areas (80.4%).

Table 5: Chi-square Test of Level of Knowledge of Effects of Teenage Pregnancy among Teenagers Based on Gender

Gender	N	Yes O(E)	No O(E)	χ^2	df	p-value
Male	177	145(151.3)	32(25.7)	3.214	1	.073
Female	222	196(189.7)	26(32.3)			

*Significant at $p < .05$

Table 5 shows that the hypothesis of no significant association between the level of knowledge of effects of teenage pregnancy among teenagers and gender ($\chi^2 = 3.214, p = .073 > .05$) was not rejected, thus not significant. This implies that the level of knowledge of effects of teenage pregnancy among teenagers was the same based on gender. However, there was no significant association between the level of knowledge of effects of teenage pregnancy among teenagers and gender.

Table 6: Chi-square Test of Level of Knowledge of Effects of Teenage Pregnancy among Teenagers Based on Education Level

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Education	N	Yes O(E)	No O(E)	χ^2	df	p-value
No F.Ed.	7	4(6.0)	3(1.0)	38.667*	3	.000
Pri. Ed.	34	18(29.1)	16(4.9)			
Sec. Ed.	236	214(201.7)	22(34.3)			
Tert. Ed.	122	105(104.3)	17(17.7)			

Table 6 shows that the hypothesis of no significant association between the level of knowledge of effects of teenage pregnancy among teenagers and education level ($\chi^2 = 38.667, p = .000 < .05$) was rejected, thus significant. This implies that the level of knowledge of effects of teenage pregnancy among teenagers was not the same based on education level. However, there was a significant association between the level of knowledge of effects of teenage pregnancy among teenagers and education level.

Table 7: Chi-square Test of Level of Knowledge of Effects of Teenage Pregnancy among Teenagers Based on Location

Location	N	Yes O(E)	No O(E)	χ^2	df	p-value
Rural area	158	127(135.0)	31(23.0)	5.442*	1	.020
Urban area	241	214(206.0)	27(35.0)			

Table 7 shows that the hypothesis of no significant association between the level of knowledge of effects of teenage pregnancy among teenagers and location ($\chi^2 = 5.442, p = .020 < .05$) was rejected, thus significant. This implies that the level of knowledge of effects

of teenage pregnancy among teenagers was not the same based on location. However, there was a significant association between the level of knowledge of effects of teenage pregnancy among teenagers and location.

Discussion

The findings in Table 1 showed that overall; teenagers indicated knowing effects of teenage pregnancy. This was seen in their possession of very high knowledge of effects of teenage pregnancy. The results were expected and therefore, not surprising. The findings could be related to the introduction of sex education in schools in Nasarawa State (Environews, 2017). The findings are consistent with the findings of Ayu, Lindawati, and Halimatusa'diyah (2020) who reported good knowledge of consequences of teenage pregnancy among respondents, and Nkabura (2021) who reported that majority of teenage respondents were well informed on the effects of teenage pregnancy. The findings disagreed with the findings of Siddarth and Kirubamani (2019) who reported insufficient knowledge of effects of teenage pregnancy among respondents in Chennai, India. Also, Saha (2020) reported 58% of respondents to possess average knowledge and 42% possessing poor knowledge of the ill effects of teenage pregnancy, with none possessing excellent knowledge. The findings have implications for health educators to carry out programmes on sexual health so as to sustain the knowledge level of the population.

The findings in Table 2 showed that both male and female respondents recorded very high knowledge of the effects of teenage pregnancy, though the female respondents recorded a higher score than the males. This could be attributed to the focus on educating and empowering the girl-child in recent times. In Nasarawa State, there are different campaigns and programmes targeting the girl-child, such as Girls' Brigade of Nigeria (GBN) as are obtainable in several locations. These programmes lay emphasis on educating the girl-child on issues pertaining to them, such as teenage pregnancy. However, the findings for the corresponding hypothesis presented in Table 5 showed no statistically significant association between gender and responses on knowledge of effects of teenage pregnancy possessed by teenagers. This result was not unexpected, thus not surprising. Notwithstanding the focus on the girl-child, the introduction of sex education in educating the students could bridge the gap between knowledge level of the boys and girls. This finding agrees with the findings of Salami (2015) where 81.15% of the female respondents in the Niger Delta area of Nigeria agreed to girls dropping out of school as an effect of teenage pregnancy, and just about 18.85% of the males agreed to that. This finding disagrees with the findings of Haldre et al. (2009) in which more than half of the girls in the pregnancy group of an interview study had a low score of knowledge of teenage pregnancy. This finding has implications for the health promoters to cater for the knowledge needs of both the boy and the girl-child in planning and executing campaigns on teenage pregnancy awareness.

The findings in Table 3 showed that teenagers with secondary education had very high knowledge of effects of teenage pregnancy more than those with tertiary, no formal, and primary education respectively. The corresponding hypothesis in Table 6 showed statistically significant association between education level and responses on level of knowledge of effects of teenage pregnancy among teenagers. This result was not surprising; rather it was expected because education is seen to bring about enlightenment and exposure. As one attains higher education, it is expected to commensurate with knowledge of issues pertaining to life. This finding is in line with the findings of Bhandari (2014) who reported educational status to be positively correlated with and statistically significant to knowledge of effects of teenage pregnancy. These results have implications for non-governmental organizations interested in health promotion to channel resources in increasing knowledge of effects of teenage pregnancy especially among the population with less education.

The findings in Table 4 showed that teenagers residing in urban and rural areas recorded very high knowledge respectively, though the urban residents reported a higher knowledge score. The corresponding hypothesis in Table 7 showed that there was significant association between location and responses on level of knowledge of effects of teenage pregnancy among teenagers. This result was unexpected, hence surprising because urbanization brings about explosion of information which may not be available to the rural residents. This finding disagrees with the findings of Udoh et al. (2019) who reported residing in rural areas to be significantly associated with teenage pregnancy. The finding has implication for health educators and non-governmental organizations in sensitizing the teenagers on effects of teenage pregnancy. Teenage pregnancy increases with less knowledge. These findings have implications for the ministry of health in organizing awareness campaigns targeting the younger teenagers.

Conclusion

The findings have shown that teenagers in Nasarawa Eggon, LGA, Nasarawa State had very high knowledge of effects of teenage pregnancy. Both male and female teenagers had very high knowledge of effects of teenage pregnancy. Teenagers with secondary and tertiary education as education level had very high knowledge of effects of teenage pregnancy, while those with no formal education and those in primary education had average knowledge of effects of teenage pregnancy. Teenagers located in both rural and urban areas had very high knowledge of effects of teenage pregnancy. Gender is not an important factor considered in teenage pregnancy, while education level and location are very important factors considered in assessing knowledge of teenage pregnancy. However, the very high level of knowledge of effects of teenage pregnancy needs to be sustained by maintaining informative mediums. Ministry of Health at both State and Local Government levels, health educators, NGOs should carry out seminars enlightening the population effects of teenage pregnancy, especially, among those residing in rural areas. Mass media should be taken advantage of in ensuring continuous awareness on effects of teenage pregnancy. The limitation encountered during the course of this study is that Knowledge of effects of teenage pregnancy of respondents was self-reported using the instrument for data collection, (KETPQ). The data obtained are therefore subject to all biases and limitation associated with this form of data collection.

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