An Investigation into the Prevalence and Factors Associated with Teenage Pregnancy in a Community at Paynesville, Monrovia, Liberia.

ABSTRACT

The rate of teenage pregnancy varies enormously between countries and within countries. Teenage pregnancy is most common in lower-income and less-educated communities. Teenage pregnancy is a significant public health concern in Liberia, posing an economic and social burden. This study is aimed at finding the prevalence and examining the risk factors associated with teenage pregnancy in Liberia specifically within the Duport road cow field block 'B' community located in Paynesville city.The data for this present study was from the research conducted using the Duport road clinic as a resource center. The participants included in this study were 50 girls aged 15 to 19 years, and all 50 were interviewed. This Quantitative study usesa population-based cross-sectional survey to collect data and IBM 20.0 SPSS (Statistical Package for the Social Sciences) for analysis. The study found that 50.2% of teenage girls aged 15 to 19 years had begun childbearing during the survey period. Age (OR = 6.9; 95% CI; 4.647,10.366, p – value 0.001)), teenagers living with their parents (OR = 1.057; p > 0.001), non-use of contraception (OR=2.53; 95%CI: 1.739, 3.683) and teenage girls who knew contraceptive methods (OR=2.86, 95%CI =0.443, 18.463) were all significantly associated with teenage pregnancy in the community.In conclusion, teenage pregnancy in Liberia is prevalent due to factors like lack of education, cohabitation, contraceptive non-use, and early sexual initiation. To reduce its prevalence, intervention measures like promoting contraception use, preventing early sexual initiation, and creating family planning clinics are recommended.

INTRODUCTION

Teenage pregnancy is a pregnancy that occurs between the ages of 13 and 19 years. (Ganchimeg et al., 2014). According to WHO (2014), approximately 21 million girls aged 15–19 years become

pregnant in developing countries each year, with around 12 million giving birth. Pregnancy among adolescents is a global public health issue that affects countries of all economic levels. Poor health, social and economic burden and low educational outcomes are significant consequences of teenage pregnancy. Teenage pregnancies are similar in disadvantaged communities worldwide due to poverty, a lack of education, and a lack of job opportunities. Teenage pregnancies are associated with high maternal and child morbidity and mortality (WHO 2014). Teenage pregnancy has long-term societal consequences for teenagers, their children, their families, and the communities in which they live (Nove et al., 2014). The children of teenage parents are more likely to struggle academically and drop out of high school. They also have higher health problems, are more likely to be incarcerated during their youth, and give birth while still in their teen's years (Perper et al., 2010). According to WHO 2015 reports, the global teenagers' birth rate is around 42.5 births per 1,000 girls. With the western Pacific having the lowest rate (14.4 births per 1,000 girls), Europe (17.1 per 1,000 girls), Southeast Asia (26.1 births per 1,000 girls), the Americas (49.9 births per 1,000 girls), the Eastern Mediterranean region (46.5 births per 1,000 girls), and Africa, having the highest rate (46.5 births per 1,000 girls).

The UNFPA report stated that approximately 14 million pregnancies occur in Sub-Saharan Africa every year, with about half of these pregnancies occurring among women aged 15–19. Almost one-tenth of all births are to women under 20 years of age. Developing countries account for more than 90% of these births (WHO 2014). In developing countries, married females account for over 90% of teenage pregnancies, and the majority of these married teenage pregnancies are intended (WHO, 2014). This is due to their extensive sex exposure and the need to produce quickly after marriage. Many African traditional groups have a reputation for pressuring teenage girls to marry young. Often, early pregnancies are encouraged by cultural influences and familiar pressure after marriage (Inyang et al., 2018). Further research found that teenage fertility is high in countries where the Islamic religion is primarily practiced, such as Cameroon, the Chad Republic, Niger, Liberia, Nigeria, and the rest of North Africa (Dahl, 2010). Hence, due to early marriages, one out of every five teenage girls in these countries is sexually active by 15, and one out of every 5 girls, by 18 becomes pregnant (Patra & Singh, 2013).

Liberia is a low-socioeconomic country, making teenage pregnancies more likely among the poor and rural population. The rate of teen pregnancy in Liberia is of concern due to a lack of sex

education, awareness and use of contraceptive methods, and a higher rate of early cohabitation, especially in rural areas. Liberia's Demography and Health survey results show that 31% of women aged 15-19 have started childbearing, with the proportion of young women who have begun childbearing increasing rapidly with age.There is limited evidence on factors associated with teen pregnancies and differences in Liberia. This study aims to investigate the prevalence and risk regional factors of teenage pregnancy and examine the sexual and reproductive factors associated with teenage pregnancy in the Duport Road Cow field Block 'B' community in Paynesville, Liberia.

METHODOLOGY

This study was carried out in the Duport Road Clinic, which is located in Duport Road Paynesville, Liberia and it focused on the teenage pregnant girls living in the Duport Road Cow field Block 'B' Community. The data used for this study came from patientsduring interviews at the Duport Road Clinic between October and December 2022. A population-based cross-sectional survey was conducted. The participants were all patients admitted to the Duport Road Clinic's antenatal and postnatal sections between October 2022 and December 2022 who were either pregnant or already teenage mothers between the ages of 15 and 19.

There were 50 participants in the study. Utilizing the open EPI, Version 3 open source calculator's technique for calculating sample size for frequency in a population, the researcher made the assumption that the outcome factor's percentage frequency—the percentage of adolescent pregnancies in Duport Road block 'B' Community (P)—was 100%. Considering that we were unable to locate any comparable studies carried out in hospital settings. In addition, we assumed a 95% confidence level, a power of one (1), and a design effect of one. Following a 10% correction for non-response, a sample size of 50 was determined.

All eligible teenage participants who gave their agreement to participate in this study between October 2022 and December 2022progressively enrolled until the target sample size was reached.Before enrolling any responders, the researcher distributed and received written informed consent from each of them. The data analysis techniques used by the researchers included univariate, bivariate, and multivariate analysis. In bivariate studies, a chi-square test was employed to evaluate the relationship between each independent and the dependent variables. Bivariate logistic regression was used in multivariate analysis to identify the factors associated with teen pregnancy. The odds

ratios for the multivariate data were presented along with a 95% confidence interval. IBM 20.0 SPSS (Statistical Package for the Social Sciences) was the program we used to analyze this data. A logistic regression was also used for determinants of teenage pregnancy.

RESULTS

Table 1. Sample of participants in Duport Road Cow Field Block 'B' Community October – December 2022.

Background Characteristics	Percentage	Total
Age		
15 – 17	78	39
18 -19	22	11
Level of Education		
No education	4	2
Primary	76	38
Secondary/ Higher	20	10
Marital Status		
Never Married	92	46
Married	8	4
Age at first Sex		
15 – 17	74	37
18 – 19	26	13
Knowledge of Contraceptive Method		
No	34	17
Yes	66	33
Contraceptive Use		
User	20	10
Non – User	80	40
Ever had a pregnancy Terminated		

No	90	45
Yes	10	5
Total	100	50

This table shows that 78% of teenage women belong to the 15 – 17 years age group, 22% of the teenagers belongs to the 18 – 19 years age group. Nearly 76% of the respondents had completed a primary level of education and only 4% was illiterate. 92% of the respondents were never married while only 8% were married; about 74% reported having their first sex was between 15 – 17 years. Nearly 66% knew contraceptive methods. Even though, participants were aware of contraceptive, 80% of young women did not use them. 10% of the respondents had a pregnancy terminated.

Table 2. Socio – demographic and Sexual reproductive health characteristics of teenage women in the Duport Road Cow field Block 'B' Community October – December 2022.

Background Characteristics	% of teenage women who had live birth	% of teenage women who are pregnant with a child	% of teenage women who have begun childbearing	Total
Age				
15 – 17	12.5	7.0	50.2	39
18 – 19	43.2	3.9	16.4	11
Level of Education				
No education	21.4	4.1	26.8	2
Primary	38.4	8.1	46.5	38
Secondary/ Higher	26.4	5.4	30.5	10
Marital Status				
Never Married	87.6	3.8	88.4	46
Married	18.7	0.8	22.5	4
Age at first sex				
15 – 17	46.1	9.2	55.4	37

18 – 19	32.9	6.8	39.8	13
Knowledge of Contraceptive Method				
No	3.4	5.4	31.7	17
Yes	32.9	1.7	5.1	33
Contraceptive use				
User	24.2	0.2	29.4	10
Non – user	29.4	6.3	30.5	40
Ever had a pregnancy terminated				
Yes	17.6	14.4	30.3	5
No	25.5	4.8	32.0	45
Total	25.2	5.2	30.3	50

Table 2 shows the distribution of teenage pregnancy by their socio – economic demographic and reproductive characteristic. Overall, 25.2% of the teenage women had a live birth, 5.2% were pregnant for the first and 30.3% had already begun childbearing in their teen years is the combination of teenage women who live had a live birth and those pregnant for the first time. All teenage pregnancy indicators were prevalent in the age group 15 – 17 years, teenagers with no or little education, married teenagers. For example, half of the teenage women in the 15 – 17 age group (50.2%) have begun childbearing, compared to 16.4% in the 18 – 19 age group and 46.5% of teenage women with primary education begun childbearing compared to those who have finished secondary/Higher level education 30.5%.

The sexual and reproductive factors shows that teenage women who had sex before 15 years were 55.4%, 46.1% of those who begun childbearing had live birth and 9.2% were pregnant with their first child among those who knew contraceptive method 26.3% had live birth, 5.4% were pregnant

with their first child and 31.7% had begun childbearing. Teenage pregnancy was higher among those currently not using any method of contraception.

For illustration, 34.6%, 5.8% and 40.3% of the teenage women had a live birth were pregnant the first time and have begun childbearing. Similarly, among non – user contraception, 30.5% of teenage women have started childbearing, whereas 29.4% are contraceptive users.

Table 3. Logistic regression results for determinants of teenage pregnancy in Duport Road Cow field block 'B' Community, October – December 2022.

	Model 1		Model 2		Model 3	
Background Characteristics	**OR**	**95%CI**	**OR**	**95%CI**	**OR**	**95%CI**
Age						
15 – 17						
18 – 19	4.008***	(3.347,6.082)			4.92***	(3.325,10233)
Level of Education						
No education						
Primary	0.671	(0.324,1230)			0.411	(3.435,10122)
Secondary/ Higher	0.650	(0.215,1214)			0.226	(0.124,0431)
Marital Status						
Never Married						
Married	12. 445***	(2.014,41213)			3611***	(1.213,12012)
Age at first sex						
15 – 17						
18 – 19			0.33	(0.210,0401)	0.122***	(0.133,0140)
Knowledge of Contraceptive Method						
No						

Yes	1.103	(0.120,2142)	1.431***	(0.221,14231)
Contraceptive use				
User				
Non – user	1.240***	(1.422,122)	1.320	(1.525,1432)
Ever had a pregnancy terminated				
Yes	0.234	(0.111,0521)	0.323	(0.121,1231)
No				

A bivariate regression analysis was employed to find the socio - demographic factors and the sexual and reproductive health risks that were linked to teenage pregnancy. There were three different models used. In the absence of explanatory variables, Model one revealed that variation in teenage pregnancy was related to the distribution of primary sample units, model two included the sexual and reproductive health characteristics of teenage women. The final model consists of the probality of two variables (Model 3). (Factors affecting socioeconomic, sexual and reproductive health). In the bivariate analysis, factors with P – values less than 0.02 included ages, marital status, level of education, knowledge of contraceptives, age at first sex, were identified as statically significant variables in the logistic regression model.

Regarding the individual predictor, the odds of having teenage pregnancy in the Duport Road cow field block 'B' Community increased with age, with those aged 15 – 17 having approximately three times higher odds of experiencing pregnancy(OR = 6.9;95%CI; 4.647,10.366, p – value 0.001). Teenagers who were not married were five times more likely to become pregnant than those who were married (OR=5.8; 95%CI; 1.415, 24.035, p – value 0.001). In addition, teenage women who knew contraceptive methods had two times higher odds of becoming pregnant (OR=2.86, 95%CI =0.443, 18.463). As well as those teenage women who were non – contraceptive users (OR=2.53; 95%CI: 1.739, 3.683). The study also discovered a 24% reduction in teenage women who had their first sex before the age 18 (OR=0.63, 95% CI=:0.165, 0360), a 63% reduction in those with primary education compared to those without (OR=0.63, 95% CI=0.342, 1.172).

Model one shows a 1.1% increase in the odds of teenage women who have started childbearing before the age of 19 compared to model three, which could be due to model three, which could be due to the increased variables in model three. Model three also shows a 2.5% decrease in marital status

DISCUSSION

The global prevalence of teenage pregnancy varies considerably. Several factors, including socio-demographic, cultural, and sexual and reproductive health, influenced this. The current study examined the prevalence and risk factors associated with teenage pregnancy in Liberia and found that the prevalence of teen pregnancy in Liberia is 30.3%. Pregnancy among teenagers was linked to age, contraceptive knowledge, marital status, education level, etc and the results of this study are consistent with results from other studies conducted in various African countries such as Ethiopia (Habitu et al., 2017), Western Nigeria (Amoran, 2012), and Uganda (Akanbiet al. 2016). The current and prior investigations identified similar socio - demographic, cultural, and individual teenage traits, which may account for the similarities. Teenage pregnancy was more prevalent in rural regions than urban and among non-educated teenagers than educated teenagers, similar to studies in Ethiopia (Habitu et al., 2017; Ahinkorah et al., 2012). Teenage women who have ever had sex, or in a relationship are statistically more likely to become pregnant than other teenagers in Liberia. One of the reasons is that early sex and cohabitation increase teenage females' desire to have children, thus increasing their chances of becoming pregnant. In most Sub-Saharan African nations, young women are encouraged to marry and start families, exacerbating the problem. The majority of young girls who marry early, have no education, originate from low-income families, and reside in rural areas are more likely to engage in behaviors that put them at risk of becoming pregnant (UNICEF 2014). Other research (Acharya et al., 2014; Kassa et al., 2018) has identified a link between teenage pregnancy and child marriage. Another study found that some teenage females are forced into marriage or cohabitation (Mehra et al., 2018).

This study found that teenagers aware of contraception had a higher chance of getting pregnant. In contrast to common belief, contraceptive knowledge may have arrived after pregnancy has happened; this was similar to another study (Boamah et al., 2014), which explained that lack of

awareness about the spectrum and use of contraceptive options and shallow information could be one reason. Other research suggests that pregnancy may have occurred despite contraceptive awareness due to a willingness or social pressure to become pregnant (Glassman et al., 2012). Therefore, condemning early sexual activity, pregnancy, and contraceptive usage by unmarried teenagers may be significant barriers to contraception use (Nalwadda et al., 2012). Our study also found that having no unmet contraceptive needs was linked to teenage pregnancy. Young females have likely altered fertility objectives following pregnancy, abortion, or motherhood, which explains the seemingly counterintuitive finding (Guzzo et al., 2019). Other possibilities include traditional or folkloric contraception use by adolescent girls rather than contemporary contraceptives. Contraception failure, inaccuracy and irregular condom usage, and contraceptive non-use contribute to an unintended pregnancy (Ajayi et al., 2016).

Limitation: Given the data's heterogeneity, the missing variables and composite data to investigate the influences on teenage pregnancy in Liberia are limitations. Further, including teenagers who have ever had a pregnancy terminated as part of the teenage pregnancy measure is likely to bias the results. The data on pregnancy termination in the DHS is frequently of poor quality and under-reported. Moreover, some of the participants' questions were about concerns after the pregnancy, while others were about their present pregnancy. The latter group's reported knowledge and behavior may have influenced their pregnancy. Finally, data on the explanatory variables included in this study, except age at first sex, correspond to the time of the surveys and may differ from the experience at the time of pregnancy. These can result in reverse causalities, such as when education ends, marriage occurs, or contraception knowledge gained after pregnancy.

CONCLUSION

The high prevalence of teenage pregnancy in the Duport Road Cow field block ‘B’ Community is a subject of alarm. Based on past research on the variables that contribute to teenage pregnancy and the harmful effects of doing so. According to our data, age, marital status, education level, early sexual initiation, lack of contraceptive use, all play a role in teenage pregnancy in the Duport Road cow field block ‘B’ community.Substantial investment in national strategies, assessment, and adolescent sexual and reproductive health involvement is required to meet providing innovative techniques to encourage teenagers to participate in family planning activities are desperately needed. To promote family planning among youths, rural health care providers should make clinics and

family planning centers more youth-friendly and increase community mobilization and information-education-communication (IEC) initiatives Increase awareness about the risks and complications of teenage pregnancy through a sexual and reproductive health program in collaboration with schools, the private sector, and non-governmental organizations. Great effort into sex education at various institutions should be considered, and sex education should be a core course to learn, making sex education accessible to youth.

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