

# **Prevalence of Teenage Pregnancy among Pregnant mothers Presenting at Hoima Regional Referral Hospital during the Covid-19 Pandemic (2020 to 2021)**

**Gode Abdullahi Khadija**

**Department of Medicine and Surgery, Kampala International University, Uganda.**

## **ABSTRACT**

Globally, it is estimated that every year, an estimated 21 million girls aged 15 to 19 years and 2 million girls aged under 15 years become pregnant. This poses a great public health concern due to its short and longer-term health and social consequences. Though teenage pregnancy had poor maternal and perinatal health outcomes, its magnitude and associated factors were not well understood in the study area. Thus, this study sought to determine the prevalence of teenage pregnancy and associated factors among pregnant mothers presenting at Hoima Regional Referral Hospital, Uganda (HRRH). A hospital based retrospective cross-sectional descriptive study was done in January 2022 on 300 pregnant mothers who had attended antenatal care between July 2020 and June 2021. Data were collected using a pre tested questionnaire, entered in computer and analyzed using SPSS version 25. Chi squared analysis was used to determine strength of association between dependent and independent variables and a p value of  $\leq 0.05$  was considered to be significant. The prevalence of teenage pregnancy in HRRH was 30.0%. Being unmarried ( $X^2=82.31$ ,  $p<0.001$ ), Secondary education and below ( $X^2=97.62$ ,  $p<0.001$ ), Christian religion ( $X^2=14.29$ ,  $p<0.001$ ), and contraceptive non-use ( $X^2=38.09$ ,  $p<0.001$ ) were found to have statistically significant associations with teenage pregnancy. This study found that there is a high prevalence of teenage pregnancy in the study area. Secondary education and below, contraceptive non-use, and being a Christian were found to have a statistically significant association with teenage pregnancy.

**Keywords:** prevalence, teenage pregnancy, pregnant mothers

## **INTRODUCTION**

Teenage pregnancy is a public health problem in both developed and developing countries due to its short- and longer-term health and social consequences. Evidence by the World Health Organization (WHO) shows an association between teenage pregnancy and higher maternal morbidity and mortality [1]. Childbearing adolescents face many health risks [2-5] such as; deaths, school drop-outs, sexually transmitted infections (STIs), and long-lasting poor situation [6]. Globally, it is estimated that 16 million girls aged 15 to 19 years and 2.5 million girls under 16 years give birth each year [7]. These teenage births make the reduction of maternal and child mortality more challenging owing to the related complications [8]. Moreover, those teenagers who get pregnant are more likely to commit unsafe abortions; around three millions unsafe abortions that occur are done by girls aged 15-19 years annually and are associated with complications such including deaths [9].

Similarly, teenage pregnancies have economic and social consequences to girls [10-12], families and communities in general [13]. Many children from teenager mothers drop out from schools and without education, job opportunities are unsecure which compromise their future well-being [14]. Moreover, with their low social

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economic status, such teenagers are not able to take care of their children. This impact their children and are likely to have poor nutrition, poor health, poor education, making the poverty cycle hard to break [15]. As in developed countries, teenage pregnancies are prevalent in developing countries where 95% of all teenage pregnancies occur. Moreover, most of these pregnancies are unplanned and unwanted [16]. Lack of sex education in most of developing countries is considered as an underlying factor contributing to increase of teenage pregnancies [17]. Moreover, low use of contraceptive among teenagers as well as girls' inability to refuse, resist to sex or negotiate protected sex are among other factors contributing to teenage pregnancies [18]. In general, sub-Saharan region continues to be among the top in having high prevalence of teenage pregnancies where according to Omoro and colleagues, 28% of adolescent mothers were found in sub-Saharan Africa in 2017 with 17% in West and Central Africa, and 14% in Eastern and Southern Africa [19]. Furthermore, 16% of all births in sub-Saharan Africa were from adolescent girls aged 15 to 19 and half of the countries with increasing rate of teenage pregnancy are in sub-Saharan Africa [20].

## METHODOLOGY

### Study design

A hospital based descriptive cross-sectional study design was used in this study.

### Study Area

The study was carried out in ANC clinic and maternity ward of Hoima Regional Referral Hospital.

### Study population

The study involved all pregnant mothers who had attended ANC at Hoima Regional Referral Hospital.

### Inclusion criteria

Pregnant mothers who attended ANC at Hoima Regional Referral Hospital from July 2020 to June 2021.

### Exclusion criteria

Pregnant mothers who attended ANC at Hoima Regional Referral Hospital before July 2020 or after June 2021.

### Sample size determination

The sample size required for the study was calculated based on the formula by Kish to estimate a single population proportion.

$$\text{it states that; } N = \frac{Z^2 p(1-p)}{\delta^2}$$

Where;

N = estimated sample size

P = prevalence of teenage pregnancy, taking the national prevalence of 25% [21] so P was 0.25

Z = standard normal variation at 95% confidence (1.96)

$\delta$  = margin of error (5%)

The calculated sample size was,  $\frac{1.96^2 \times 0.25(1-0.25)}{0.05^2} = 288$ .

The sample taken was 288, plus 4% to cover for those with incomplete data in the register. Approximately, 300 sample was taken.

### Sampling Procedures

Systematic sampling was used to get the names of pregnant women from the ANC register. The first mother registered on 1<sup>st</sup> June 2020 will be taken as number one, then every 5<sup>th</sup> mother in the register was considered for the

study until the required sample of 300 was reached. If the mother was selected but had missing information, the next 5<sup>th</sup> mother was considered.

#### Data collection methods

Data was collected using a pretested, survey questionnaire which was prepared in English. It captured socio-demographic factors as well as teenage pregnancy.

#### Data Analysis

Data obtained from the questionnaire was entered into computer using IBM SPSS 25 software for statistical analysis. Descriptive statistics like frequencies, percentages, and means were computed. Chi square analysis was carried out to examine the relationship between teenage pregnancy and each variable and variables with a p-value  $\leq 0.05$  were considered to be statistically significant.

#### Ethical consideration

Ethical clearance was sought from the dean faculty of clinical medicine and dentistry and was granted in form of an introduction letter. The copy of introduction letter was taken to the administrator/director of HRRH to seek permission to collect data.

### RESULTS

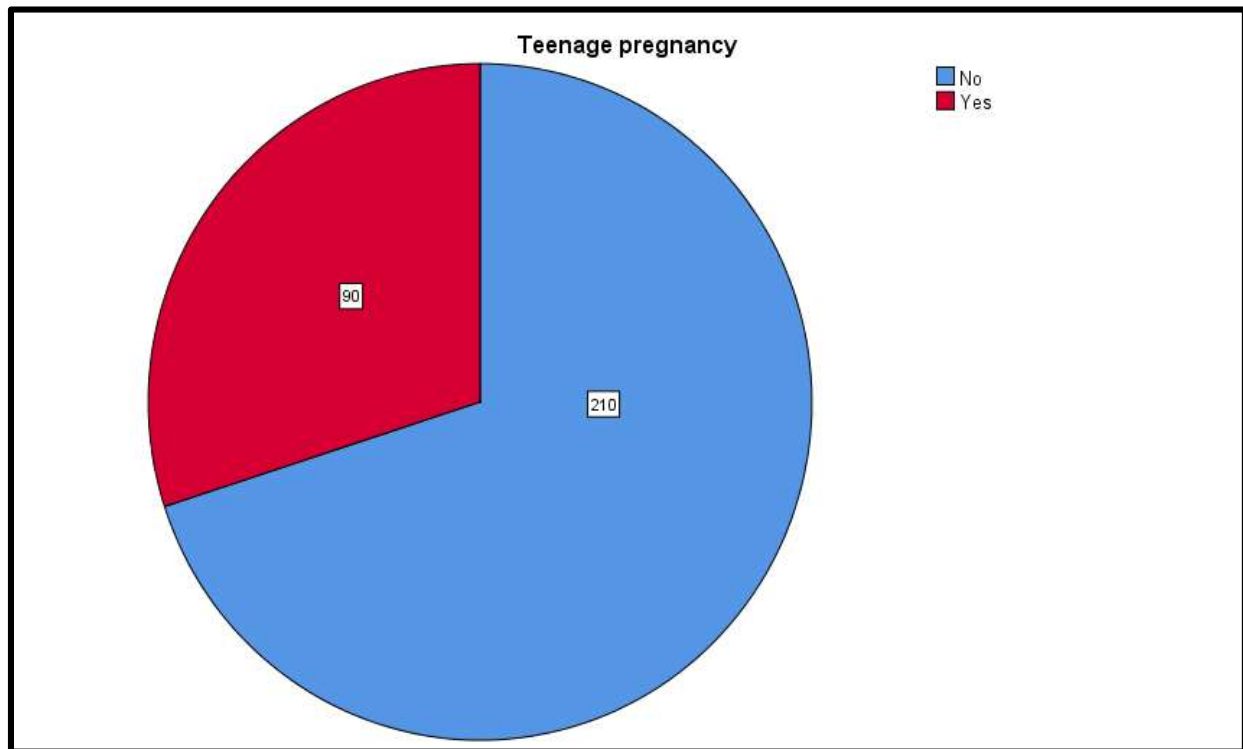
Demographic characteristics of study respondents are shown in Table 1. The mean age of the respondents was 25.1 years  $\pm$  5.8 standard deviation. The majority of the respondents were Christians 240 (80%), were married 210 (70%) and from rural residence 180 (60%). Very few 90 (30%) had completed tertiary education level.

**Table 1: Socio-demographic characteristics of the respondents**

Variable	Frequency	Percent
<b>Age group (years)</b>		
$\leq 19$	90	30.0
20-29	120	40.0
$\geq 30$	90	30.0
<b>Marital status</b>		
Married	210	70.0
Not married	90	30.0
<b>Education level</b>		
Primary and below	120	40.0
Secondary	90	30.0
Tertiary	90	30.0
<b>Religion</b>		
Christian	240	80.0
Muslim	60	20.0
<b>Residence</b>		
Rural	180	60.0
Urban	120	40.0
<b>Contraceptive use</b>		
Ever used	180	60.0
Never used	120	40.0

The study reveals that of the 300 mothers, 90 were teenage mothers representing a teenage pregnancy prevalence of 30%. Figure 2.

**Figure 1: Prevalence of teenage pregnancy**



Results of Chi squared analysis of factors associated with teenage pregnancy are shown in table 2 below. Results show that; marital status ( $X^2=82.31$ ,  $p<0.001$ ), Education ( $X^2=97.62$ ,  $p<0.001$ ), religion ( $X^2=14.29$ ,  $p<0.001$ ), and contraceptive use ( $X^2=38.09$ ,  $p<0.001$ ) were significantly associated with teenage pregnancy while residence ( $X^2=2.38$ ,  $p=0.123$ ) was not significant.

**Table 2: Chi square analysis of factors associated with teenage pregnancy**

Variables	Teenage pregnancy		Chi square (X <sup>2</sup> )	P value
	No	Yes		
<b>Marital status</b>			82.31	<0.001*
Married	180 (85.7%)	30 (33.3%)		
Not married	30 (14.3%)	60 (66.7%)		
<b>Education level</b>			97.62	<0.001*
Primary and below	90 (42.9%)	30 (33.3%)		
Secondary	30 (14.3%)	60 (66.7%)		
Tertiary	90 (42.9%)	0 (0.0%)		
<b>Religion</b>			14.29	<0.001*
Christian	180 (85.7%)	60 (66.7%)		
Muslim	30 (14.3%)	30 (33.3%)		
<b>Residence</b>			2.38	0.123
Rural	120 (57.1%)	60 (66.7%)		
Urban	90 (42.9%)	30 (33.3%)		
<b>Contraceptive use</b>			38.09	<0.001*
Ever used	150 (71.4%)	30 (33.3%)		
Never used	60 (28.6%)	60 (66.7%)		

\*Statistically significant value

## DISCUSSION

The present study revealed that the prevalence of teenage pregnancy among pregnant women attending ANC clinic at Hoima Regional Referral Hospital was 30%. This prevalence is higher than the national prevalence of 25% [22] and that reported by other studies in Uganda [23, 24, 13]. The higher prevalence in the current study could be attributed to the covid lockdown which put teenage girls to risk of pregnancy. Young girls in recent times have become sexually active and mostly engage in sex at an early age without thinking of the consequences arising from the act of engaging in sex at an early age [25]. In fact, if a community survey was done, it would find a higher prevalence since some of the pregnant teenagers might fear going to hospital or begin ANC late. Different studies have revealed that there are many socio-demographic factors associated with teenage pregnancy [26 – 28]. This was confirmed in this study whereby; marital status, education and religion were found to be statistically significant.

In this study, education level was significantly associated with teenage pregnancy. It was discovered that 66.7% of the teenage mothers in this study were in secondary school. Similar findings were reported in various studies in Nigeria [29], Mexico [30], and Kenya [18]. The reason for high teenage pregnancy in secondary school girls could be due to the fact that girls begin their adolescence when they are in secondary level of education. Similar findings were reported in an Ethiopian study which showed that being in secondary school increased the risk of teenage pregnancy by 3-fold [27]. Being in secondary also offers opportunity to many teenagers to socialize with opposite sex which can lead them to practice unprotected sex leading them to becoming pregnant. Similarly, this study found marital status to be significantly associated with teenage pregnancy. Seventy percent (70%) of pregnant teenagers in this study were not married. The reason may be that marriage before 18 years is criminal in Uganda, moreover, such teenagers may be impregnated by fellow teens who cannot afford to marry. This contradicts the findings by [8] and [31] northern Uganda who reported that early marriage was one of the drivers of high teenage pregnancies.

Another significant factor in this study was religion as 66.7% of pregnant teenagers were Christians. This may on one hand be due to the fact that majority of the respondents (80%) in this study were Christians or Christians may not be as strict as Muslims on girls. A similar trend was reported in Kenya, Tanzania and Burundi [23]. Unlike other studies, this study found that residence was not significantly associated with teenage pregnancy. It has been argued that urban living comes with modern social expectations, it gives opportunity for liberal worldviews and restrictions placed on teenagers in traditional homes are lifted. Teenage migrants who had financial freedom had more say in decisions that affect their reproductive lives which in turn may lead to early sex and teenage pregnancy [31]. In this study, teenagers who have never used contraceptives had a 70% of becoming pregnant than those who have used contraceptives. Other studies are in line with this finding in that the prevalence of teenage pregnancy increased among contraceptive nonusers [20, 15, 29, 32]. It has been evidenced that as the proportion of contraceptive nonusers increased the proportion of pregnancy increased [33, 34].

### CONCLUSION

This study found that there is a high prevalence of teenage pregnancy in the study area. Secondary education and below, contraceptive non-use, and being a Christian were found to have a statistically significant association with teenage pregnancy [35, 36].

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