

## Predictors and Prevalence of Unplanned Teenage Pregnancy in Vihiga County

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**Abstract:** Objective. The objective of the study was to assess predictors and prevalence of unplanned teenage pregnancy in Vihiga county. Design. The study was a descriptive cross-sectional study. Setting. The study was carried out in Vihiga County Sample. The target population was teenagers attending ANC clinic. Participants were sampled using simple random sampling (n = 40) Analysis. Data was analyzed through descriptive statistics and chi square test of independence. Main outcome measures. Pregnancy state, demographic factors and knowledge Results. Majority of the respondents unemployed or students (n= 12, 30%), with an education level of secondary school level (n=22, 55%). Majority of respondents were of age bracket 14-16 years (n=20, 50 %). 83% of the teenagers reported that the pregnancy was unplanned. 70% of the respondents were aware of family planning, while only 37% reported to have used family planning before. Bivariate analysis on other factors that are associated with pregnancy condition shows that there was a significant relationship between awareness of family planning and pregnancy state in the study area ( $\chi^2(df=1) = 7.113, p=0.01$ ) as shown in Table 3. The source of information on family planning was statistically significantly ( $\chi^2(df=3) = 3.214, p=0.01$ ). Similarly, use of family planning was statistically significantly ( $\chi^2(df=2) = 8.654, p=.002$ ) with pregnancy state. There was no significant relationship between pregnancy state and other factors that contributed to pregnancy. Conclusion. The study established that most teenager reported unplanned pregnancy and knowledge factors are significant predictors of pregnancy state. The study also recommends that more research should be done in other areas in Kenya to get a wider scope of Parents and other stakeholders' involvement in teenage pregnancy prevention.

**Keywords:** Teenage pregnancy, factors, young people, Vihiga county, Kenya,

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### I. Background

Annually approximately 11% of all birth globally occur to adolescents aged 15- 19 years and 95% of the birth occur in developing countries (WHO 2012). Adolescent pregnancy have a long lasting impact on the physical and mental health education and livelihood of young women , men and their families.(UNFPA ,2013),The health impact of teen pregnancy is significant with increased risk of maternal death , illnesses and disability including obstetric fistula , preterm delivery , complications of unsafe abortions sexually transmitted infections , including HIV/AIDS and health risks to infants(UNFPA, 2013).According to the study carried by Quickstats, 2012, teen pregnancy in the US hit a record low at 31.3birth per 1000 women age 15-19 years in the year 2011. Basch, 2011 believes this drop is due to an increase in access to sex education, a delay in initial sexual intercourse and an increase in contraception use. He says even though the rate of teenage pregnancy has been reducing steadily, US has a much higher rate of teenage pregnancy compared to other developed countries.According to (KDHS, 2014), 15% of women age 15-19 years have already had at least one pregnancy, percentage of women who have begun child bearing increases rapidly with age, from about 3% among women aged 15 to 40% among women age 19, it also shows that 3 in 10 women age 10- 15 years with no education have begun child bearing compared with, 12% among those who have secondary/ higher level of education.Similarly,teenagers' poor households are more likely to have begun child bearing (26 %), than teenagers from wealthier households (10 %). Prevalence of early child bearing according to (KDHS 2014) shows highest in counties is within Nyanza region at 22.2%, followed by Rift Valley (21.2 %) and Coast 21%. Homabay county has the highest rate of early child bearing (33.3%) followed by Nyamira at 27.8% and 24.3% within Nyanza.

Many factors can contribute to teen's risk of becoming pregnant, family history and home life have an impact on teenage pregnancy. According to study conducted by Ditsela and Van Dyk, 2011, they found out that there is a correlation between parenting style in girls at home and teenage pregnancy. They reveal that teenage pregnancy will be more common in young women who grow up in authoritarian or permissive parents. In

contrast teenagers who perceived their parents to be more responsive, communicative and allowing of them to develop were less likely to get pregnant as teenagers. Another study focused on parental communication about sex and association between exposure to MTVs 16 and pregnant /teen mom and female student's pregnancy risky behavior carried out by Wright, Randall Aroyo 2013. They found out that there was relationship between he mothers and the effects of sexual media on their daughter's sexual behaviors. It showed that girls who watched MTV shows often were shown to have increased probability of engaging in sexual intercourse, however," frequent viewing was associated with decreased probability of having engaged in recent intercourse for females whose fathers often communicated sex with them while growing up." Wright et al 2013. The research co-relates with that of Ditsela and Van Dyk, 2011 which showed that lack of parental support is related to RSB. (Risky Sexual Behavior)

Studies conducted in Mombasa on youth in colleges and youth centers revealed that significant proportion of women (16.9%) reported rape and financial gains (13.6%) respectively as reasons for sexual debut (JIN ,2012). According to KDHS, 2014, there is high prevalence of child bearing among Nyanza region (22.2%), followed by Rift Valley (21.2%) and coastal which has 21%. The lowest teenage pregnancy is in Central at 10% and North Eastern Region at 12.2%.Peer pressure is a contributing factor as per the study conducted in Kenya in two formal settlements, it showed that negative models in peers led to pregnancy in teenagers aged 15-17 years (DonatienBegy ,2013), Similar findings were established in America where among friends, a friend's child bearing increases individual risk of becoming a parent. (Nicoletta Balbo 2014.). Kabiru notes that, in most cases, lack of Discouragements from friends not to have boyfriends' pre- disposes teenagers to unplanned pregnancy. (Kabiru.K. Salami, 2014). The factors influencing the increase in teenage pregnancy are not well defied however, hypothetical factors assumed to influence these problems are; inadequate knowledge about reproductive health, inadequate accessibility to reproductive health services, poverty, early sexual practice, single parent care which leads to poor upbringing, lack of guidance, attending cultures at early age, negative culture and beliefs towards utilization of reproductive health services. The study therefore identifies some environmental, socioeconomic and socio demographic factors contributing to prevalence of teenage pregnancy in Vihiga County. The information obtained from the study will help health works and other stake holders e.g. ministry of health at county level and national level to design and set appropriate interventions that will help to control or reduce the current problem.

## **II. Methods**

Permission was sort from the college Research Committee and the nursing Research and Ethical Review committee of Vihiga county referral hospital (VCRH) through the medical superintendent and prior to commencement of the study. Potential respondents approached in groups and explained the purpose of the study and the impacts and measures taken to observe confidentiality will be distributed. Informants were advised of the voluntary nature of the study and given option to withdraw from the study at any stage without being subjected any penalty. Prior to the commencement of the questionnaires, they were required to fill the written informed consent to allow them participate in the study.

### **Research Design**

This is showing how the problem under investigation will be resolved, the study adapted descriptive cross-sectional survey design. A descriptive survey design is a scientific method which involves observing and describing the behavior of a subject without influencing it in any way (parloo, 2010). The study design covered physical characteristics of people, material and environment as in prevalence survey or evaluation of coverage, socioeconomic characteristics of people such as age, marital status, knowledge, attitudes, opinions that help to explain the behavior and events that occur in population in relation to teenage pregnancy.

### **Study setting**

The study is conducted in Vihiga county referral hospital, Vihiga County. VihigaCounty is among the four counties in western region. The bordering counties include Kisumu,Kakamega, Siaya and Nandi County, the county has an approximate population of about 554,622 people spread in all five sub counties (census report 2009). In each sub county there is a sub county hospital and a health Centre that renders comprehensive health care services including antenatal clinic with at least one qualified Nurse (midwife).Mbale town where the study is carried out is the head quarter of the Vihiga County which is entirely designated as an urban Centre. It is situated at almost the Centre of all the five sub counties. It comprises an area approximately 205 sq. km. the population of Mbale town is approximately 71,131 of which 40% are the women of the reproductive age, Vihiga County Referral Hospital is the largest hospital in Vihiga County, a level five hospital. The hospital started as a district hospital in the year 2005 and later recognized as a teaching and research hospital.

### Participants

Study population is a study of a group of individuals taken from the general population who share a common characteristic (Mugenda and Mugenda, 1999). The target population was teenagers attending ANC clinic. Participants who were included in this study had to meet the following criteria; All pregnant teenagers (10-19 years) attending ANC at VCRH, all teenagers admitted in ANC ward in maternity wing, all postnatal teenagers both C/S and spontaneous delivery still in the ward and all teenagers in Kangaroo mother care whose babies are in New born unit. Simple random sampling was used.

### Questionnaire

The study instrument was structured questionnaire, because; It permitted greater depth of response, it was economical in terms of time and money, it was easy to analyze and closed-ended questions are easier to formulate. The dependent variable was prevalence of teenage pregnancies. Self-report questionnaire was designed to draw out information on factors influencing teenage pregnancy. Validity is the degree to which an instrument measures what is supposed to be measured. The validity of both instruments was established by a thorough review of the literature and conducting a pilot study. In relation to consulting expert opinions. Reliability is the measure of degree to which a research instrument yields consistent result after repeated trials. The reliability was established through Cronbach's alpha and the coefficient was 0.73.

### III. Data Analysis

Data analysis was done using the statistical program for social sciences (SPSS) version 25. Inferential and descriptive statistics were used to analyze data. Visual inspection of the data illustrated that missing data appeared to be missing at random. Elimination of observed outliers was based on a case by case basis, dependent on standard deviations, and on normality and homogeneity of variance assessments. Univariate analysis was used to describe the distribution of each of the variables in the study objective, appropriate descriptive analysis was used to generate frequency distributions. Bivariate and multivariate analysis was used to investigate the strength of the association and check differences between the outcome variable and other independent variables. Alpha level for all the computations was considered  $p < 0.05$ .

### IV. Results

Out of the 50 questionnaires distributed, 40 were correctly filled and returned which represented a response rate of 83 percent. According to Mugenda and Mugenda (2003) a response rate of 50 percent is adequate, a response rate of 60 percent is good, and a response rate of 70 percent is very good. Therefore, the 80 percent response rate reported for this study formed an acceptable basis for drawing conclusions. Firstly, the study asked the respondents to indicate their background characteristics based on the gender, nurse classification, work experience; age-bracket and education level. The summary of their responses is given in Table 1.

**Table 1.** Background characteristics of respondents

Demographics		Frequency	Percent
<b>Religion</b>	Christians	39	97.5%
	Muslims	1	9%
	<b>Total</b>	<b>40</b>	<b>100%</b>
<b>Employment</b>	Unemployed	12	30%
	Student	12	30%
	Housewife	8	20%
	<b>Total</b>	<b>40</b>	<b>100.0</b>
<b>Education level</b>	Primary	13	33%
	Secondary	22	55%
	Tertiary	5	12%
	<b>Total</b>	<b>40</b>	<b>100.0</b>
<b>Age Bracket</b>	10-15 years	6	10%
	14-16 years	20	50%
	17-19 years	16	40%
	<b>Total</b>	<b>40</b>	<b>100.0</b>
<b>Pregnancy state</b>	Planned	7	17.5%
	Unplanned	33	82.5%
	<b>Total</b>	<b>40</b>	<b>100.0</b>
<b>Age of male partner</b>	10 - 19 years	10	25%
	20 - 29 years	22	55%
	30 - 39 years	5	12%
	>40 years	3	5%
	<b>Total</b>	<b>40</b>	<b>100.0</b>

Findings in Table 1 revealed that, of the 40 respondents interviewed, 39 (97.5%) were Christians. Majority of the respondents unemployed or students (n= 12, 30%), with an education level of secondary school level (n=22, 55%). Majority of respondents were of age bracket 14-16 years (n=20, 50 %). 83% of the teenagers reported that the pregnancy was unplanned. Most respondents reported that the age of the male partner was between 20-29 years.

**Table 2: Predictors of teenage pregnancy**

Items	Frequency	Percent	
Aware of Family planning	Yes	28	70%
	No	12	30%
Use of FP before current pregnancy	Yes	15	37%
	No	25	63%
Source of information on FP	Health workers	7	17%
	Media	6	15%
	Family member	15	38%
	Not heard	12	30%
Factors that contributed to pregnancy	Tech. Factors	3	8%
	Parental factors	10	25%
	Env. Factors	8	20%
	Health & government fact.	18	45%
	Cultural factors	1	2%
<b>Total</b>	<b>40</b>	<b>100.0</b>	

**Bivariate analysis of pregnancy state and socio demographic characteristics**

From the findings there was no statistically significant association between respondent’s socio demographic characteristics and pregnancy state. Table 3 below gives a summary of findings

**Table 3: Bivariate analysis of pregnancy state and socio demographic characteristics**

	Planned pregnancy	Unplanned pregnancy	Total	p value
<b>Religion</b>				
Christians	6(15.4%)	33(84.6%)	39(97.5%)	.282
Muslims	0(0.0%)	1(100.0)	1(9%)	
<b>Employment</b>				
Unemployed	2(16.7%)	10(83.3%)	12(30.0%)	.564
Student	4(33.3%)	8(66.7%)	12(30.0%)	
Housewife	2(20.0%)	6(80.0%)	8(20.0%)	
<b>Education Level</b>				
Primary	0(0%)	13(100%)	13(33.0%)	.225
Secondary	5(23.1%)	17(76.9)	22(55.0%)	
Tertiary	2(40%)	3(60%)	5(12.0%)	
<b>Age bracket</b>				
10-15 years	3(50.0%)	3(50.0%)	6(10.0%)	.606
14-16 years	8(37.5%)	12(62.5%)	20(50.0%)	
17-19 years	3(18.8%)	8(81.2%)	16(40.0%)	

**Bivariate analysis of pregnancy state and other factors**

Bivariate analysis on other factors that are associated with pregnancy condition shows that there was a significant relationship between awareness of family planning and pregnancy state in the study area ( $\chi^2(df=1) = 7.113, p=0.01$ ) as shown in Table 3. The source of information on family planning was statistically significantly ( $\chi^2(df=3) = 3.214, p=0.01$ ). Similarly, use of family planning was statistically significantly ( $\chi^2(df=2) = 8.654, p=.002$ ) with pregnancy state. There was no significant relationship between pregnancy state and other factors that contributed to pregnancy. A summary is presented in Table 3 below.

**Table: Bivariate analysis of pregnancy state and other factors**

	Planned pregnancy	Unplanned pregnancy	Total	Chi square ( $\chi^2$ )
<b>Aware of family planning</b>				
Yes	2(7.1%)	26(92.9%)	28(70.0%)	$\chi^2$ (df=1) =7.113, p=0.7
No	2(16.7%)	10(83.3%)	12(30.0%)	
<b>Source of information on FP</b>				
Health workers	1(14.3%)	6(85.7%)	7(17.0%)	$\chi^2$ (df=3) =3.214, p=0.01
Media	3(50.0%)	3(50.0%)	6(15.0%)	
Family member	1(6.7%)	14(93.3%)	15(38.0%)	
Not heard	0(0.0%)	12(100%)	12(30.0%)	
<b>Use of family planning</b>				
Yes	0(0%)	15(100%)	15(37.0%)	$\chi^2$ (df=2) =8.654, p=0.02
No	2(8.0%)	23(92.0%)	25(63.0%)	
<b>Factors that contributed to pregnancy</b>				
Tech. Factors	1(33.3%)	2(66.7%)	3(8.0%)	$\chi^2$ (df=4) =5.214, p=.636
Parental factors	1(10.0%)	9(90.0%)	10(25.0%)	
Env. Factors	1(12.5%)	7(87.5%)	8(20.0%)	
Health &government fact.	1(5.6%)	17(94.4%)	18(45.0%)	
Cultural factors	0(0.0%)	1(100.0%)	1(2.0%)	

## V. Discussion

The purpose of this study was to assess predictors of unplanned pregnancy among teenagers in Vihiga county. The study revealed that majority of the respondents unemployed or students (n= 12, 30%), with an education level of secondary school level (n=22, 55%). Recent Research in Vietnam by Nguyen, Shiu and Farber, (2016) shows that teenagers who cannot adequately afford basic needs are more likely to be involved in sexual activities in exchange for monetary benefits than those who can afford all basic needs. These findings are consistent with the results of Rob (2015) research on education, income and wealth which revealed that the more skills people have, the employable they are and that there is relationship between education and income in that those with more education earn higher incomes and have lower average of unemployment rates than those with less education. WHO pointed out that, an approach for prevention of teenage pregnancy with awareness of sex education should be included in the school curriculum for youths, as this will invariably prevent school dropout from teenage pregnancy (WHO, 2000).

Findings show that 83% of the respondents had unplanned pregnancy. A study from Sri Lanka in 2005 reported unplanned pregnancies in 54% of young teenagers (< 16 years) and in 23% of older teenagers (>16 years) (Goonewardene & Deeyagaha, 2005). Nepal reported higher figures of 47% unplanned and 34% undesired pregnancies (Sharma, Verma, Khatri & Kannan, 2001). Nepalese pregnant teenagers being much younger to Sri Lankan pregnant teenagers would have contributed to the differences. The studies in the USA has focused on the rates of teenage conceptions that end up as legal abortions which has been assessed to be approximately 50% (Ventura, Curtin, Abma & Henshaw, 2012). Teenage pregnancy had various health effects. Mazur posited that teenagers suffer from various pregnancy complications like obstructed labor, retardation of fetal growth, premature birth, vesico-vaginal fistula (VVF) and recourse to abortion (Mazur, 2002).

Findings also revealed that 70% of the respondents were aware of family planning and but only 37% had used family planning before. Education could play a significant role in developing self-confidence, increasing age at first sexual intercourse and delaying marriage (Waszak, Thapa & Davey, 2003). However, it also provides an opportunity for pre-marital sexual activity. Such activity may create risks of unwanted pregnancy if it is combined with a lack of knowledge about the body and contraception (Singh, 2003). Many studies suggest that teenagers have basic knowledge about contraception; mostly related to information about condom use. However, their use was limited and unrelated to lowering teenage pregnancy rates. The studies were not able to explain why young people were inconsistent contraceptive users, even though they have relatively high level of contraceptive knowledge. Jejeebhoy et al., clearly notified that much of such knowledge remains superficial and ridden with myths, misperceptions and a sense of invulnerability (Jejeebhoy et al., 2003).

## VI. Conclusion & Recommendation

The study established that majority of the respondents had unplanned pregnancies and knowledge had an association with pregnancy state. This study recommends that the Ministry of Health through the department of Public Health at the county level should develop interventions to promote parental monitoring and supervision of teenage girls. The study also recommends that more research should be done in other areas in Kenya to get a wider scope of Parents and other stakeholders' involvement in teenage pregnancy prevention.

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