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Evaluation of Factors Associated with Teenage Pregnancy in Magambo Town Council, Rubirizi District

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ABSTRACT

Teenage pregnancies and teenage motherhood are a public health and obstetric health concern worldwide. To determine factors associated with teenage pregnancy in Magambo town council in Rubirizi District. This was a cross-sectional study carried out in Magambo town council among youths aged between 15-19 years with a study population of 384 participants. A greater of participants were females (100%), by region many were Catholics 146(37.9%), majority 175(45.6%) were single and by education many 271(70.5%) were of secondary level. 71(18.6%) were pregnant or have given birth before positive while 313(81.4%) have never become pregnant. Thus, the prevalence of teenage pregnancy among youth aged 15-19 years in Magambo town council is 18.6%. number of partners (3 Vs 1), was significant to teenage pregnancy. Participants with one partner were 56% less likely to become pregnant compared to those with 3 partners, (aOR=0.442, 95% CI=0.213-0.922). The prevalence of teenage pregnancy among youth aged 15-19 years was high which was significantly associated with number of partners that is having more than one partner increases the teenage pregnancy.

Keywords: teenage, pregnancy, 15-19 years, associated factors

INTRODUCTION

Teenage pregnancies and teenage motherhood are a public health and obstetric health concern worldwide [1-4]. Teenage pregnancy has been defined by the World Health Organization (WHO) 2004 as pregnancy in females aged 15- 19 years [5]. Pregnancy is a second cause of death to self-arms among girls aged 15 and 19 years worldwide in less developed countries due to poor healthcare systems [6]. The World Health Organization (2014) estimates that 11% of all births worldwide are by girls between the age of 15 and 19 years with one million girls younger than 15 years giving birth every year [1]. More than 90% of birth by girls aged 15 and 19 years occur in low and middle-income countries especially in west and central Africa, east and southern Africa, South Asia, Latin America, and the Caribbean's [7-10]. Historically teenage pregnancies are not new and it was considered normal and socially acceptable in previous centuries especially in Europe until it was debated as a public health problem and considered as societal challenge [1].

Teenage pregnancy is a special public health problem labeled alongside obesity, diabetes, cardiovascular diseases, and cancer rates. However, its now also known that, teenage pregnancy is also an obstetric health problem attributed to young maternal age associated with an increased risk of anemia, preterm labor, urinary tract infections, hypertension, preeclampsia, a high rate of cesarean sections but also preterm birth, low birth weight, and intrauterine growth restriction due complications during pregnancy, birth, and postpartum period (42 days after birth). This therefore, has increased effect on maternal and infant mortalities especially in developing countries due to poor healthcare systems to handle the obstetric emergencies [11-13].

Teenage pregnancies and motherhood also have deleterious effects on the development of girl's capabilities that shouldn't be under estimated. The

consequences that may harm girl's development include; denying them childhood and reducing the opportunities of education, inhibiting girl's personal development of learning and professional practice, risk of sexual abuse and violence by husband, risk of disease or even death of the child or the mother [14].

Adverse health consequences and poor pregnancy outcome among teenage mothers seem to be associated to developing countries that are socio-economically disadvantaged. Therefore, in developed countries teenage pregnancies and teenage motherhood are no longer seen as medical risk but as a social problem [1].

Prevalence of teenage pregnancies and motherhood varies among regions across the world. WHO (2012) reported about 16 million girls aged 15-19 years become pregnant on a yearly basis with 95% of all teenage pregnancy being in developing countries [5]. Every day in developing countries, 20,000 girls under age 18 years give birth amounting to 7.3 million births a year [6]. About 90% of birth by girls aged 15 and 19 years occur in low and middle-income countries [7].

In Africa, inverse significant relationship with life expectancy, literacy rate and contraceptive prevalence was found and were the most important predictors of teenage pregnancy [5]. Furthermore, in Uganda, Marital status and Age is a strong predictor of the likelihood of teenage pregnancy. Growing evidence of socioeconomic disadvantage explains associations between teenage motherhood and poor health outcomes [15].

Uganda therefore designed various policies to delay and protect young women from becoming pregnant during adolescence. These policies include the National Health Policy, the National Adolescent Health Policy, the National Policy on Young People and HIV/AIDS, the Sexual Reproductive Health Minimum Package, the Minimum Age of Sexual Consent Policy (set at 18 years of age), the defilement law, the Universal Secondary Education (USE) policy, and the Universal Primary Education (UPE) policy. These policies also serve the purpose of fostering a supportive environment to encourage adolescent reproductive health [15].

METHODOLOGY

Study Design

The study was a community based cross-sectional study design, employed both quantitative and qualitative approaches [16].

Study Area

This study was conducted in Magambo t6own council, Rubirizi district.

Study Population

The population under study was Teenagers 15- 19 years of age by beginning of the year 2021. Generally, the Sub- County is composed of estimated total population of 5561 males and 5996 females being teenagers between 15 - 19 years (District Projected Demographics for 2020/21).

Sample Size

The researcher used the formula adapted from Israel (1992) but developed by Cochrane (1963) to get the estimated sample size for the study.

$$n_0 = \frac{Z^2 pq}{e^2}$$

Where:

Z-value is found in the Z table (i.e., 95% confidence level of the normal distribution =1.96)

e is the desired level of precision of 5% (i.e., Margin (e) being ≤10%),

P is the (estimated) proportion of the population which has the attribute in question (i.e., the prevalence of teenage pregnancy which is 50%).

q is 1 – p.

Therefore,

$\mathbf{n_o} = 1.96^2 \text{ X } 0.5(1\text{-}0.5)/\ 0.05^2$

$\mathbf{n_o} = 3.8616 \text{ X } 0.2456/0.0025 = \mathbf{384}$

Inclusion Criteria

Teenagers in households that are living in Magambo town council and were 15-19 years at the beginning of the year 2021 and consent to participate in the study.

Exclusion Criteria

Girls that are less than or more than 15-19 years of age by the beginning of the year 2021 will not be included in the study.

Sampling technique

The study participants in this study were chosen by simple random sampling technique. The technique is a probability technique where every single element in a population has an equal chance of being chosen to form a sample, will be used to identify the teenagers in Magambo town council.

Data collection procedure

Data required was collected using a pre-tested standardized Semi-structured and structured Questionnaire. The researcher used one-on-one/ face to- face interviews for the teenage girls that were present on the day of the study, while filling in the questionnaires.

This was done at the households of the selected villages or a selected area ensuring a setting that provides maximum privacy and confidentiality to conduct the interview(s).

Data Processing and Analysis

The data was analyzed, inspected, cleaned and transformed into meaningful information and it was done as below;

Descriptive statistics were categorized and findings presented in tabular form; mean, mode, and median, standard deviation and frequency tables were utilized. For example; Age was categorized in an interval of twenty; Sex will be either male or female; Occupation/ employment status was categorized as formal, informal (self) or Unemployed; Level of education was categorized into none, primary, secondary or tertiary; Marital status was categorized into Single, married, widowed, divorced, separated or cohabiting; knowledge was categorized as knowledgeable or not knowledgeable, Attitude towards reproductive health services was categorized as good or bad, Perception as good or bad, self-efficacy as high or low and motivation as low, moderate or high.

Bivariate analysis was used to determine the association between independent variables and prevalence of teenage pregnancies. The significance of the association was determined by using the Pearson's Chi-square test.

The researcher analyzed the qualitative data manually using content and thematic analysis. With Content analysis the researcher categorized verbal or behavioral data from the respondents for the purpose of classification, summarization and tabulation and thematic analysis by identifying a thematic framework for initial coding from a priority issue as per interview questions in order to realize the study objectives.

Ethical consideration

The proposal was be approved by the supervisor on completion of the write up and defended before being submitted for authorization to commence data collection to the faculty of clinical medicine and dentistry in Kampala international University Western campus.

Permission to conduct the study in the study area was sought from the district health officer of rubirizi district and other relevant authorities following presentation of the proposal detailing the intensions of the study [17]. Verbal and written consent was obtained from the respondents before interview. Confidentiality was observed throughout the study, participants were identified by names but code numbers. Participants were informed about the objectives of the study and their participation being voluntary and reserved the right to withdraw from the study at any time they deem fit in due course of the research.

RESULTS

Table 1: Table showing socio demographic factors of study participants

Variables	Frequency (n)	Percentage (%)
Sex		
Female	384	100
Religion		
Catholic	146	37.9
Muslim	134	34.7
Protestant	28	7.4
Born again	24	6.3
SDA	24	6.3
Anglican	28	7.4
Marital status		
Single	175	45.6
Married	111	28.9
Divorced	68	17.8
Education		
Primary	69	17.9
Secondary	271	70.5
University	34	9.0
Tertiary	10	2.6

A greater of participants were females (100%), by region many were Catholics 146(37.9%), majority 175(45.6%) were single and by education many 271(70.5%) were of secondary level.

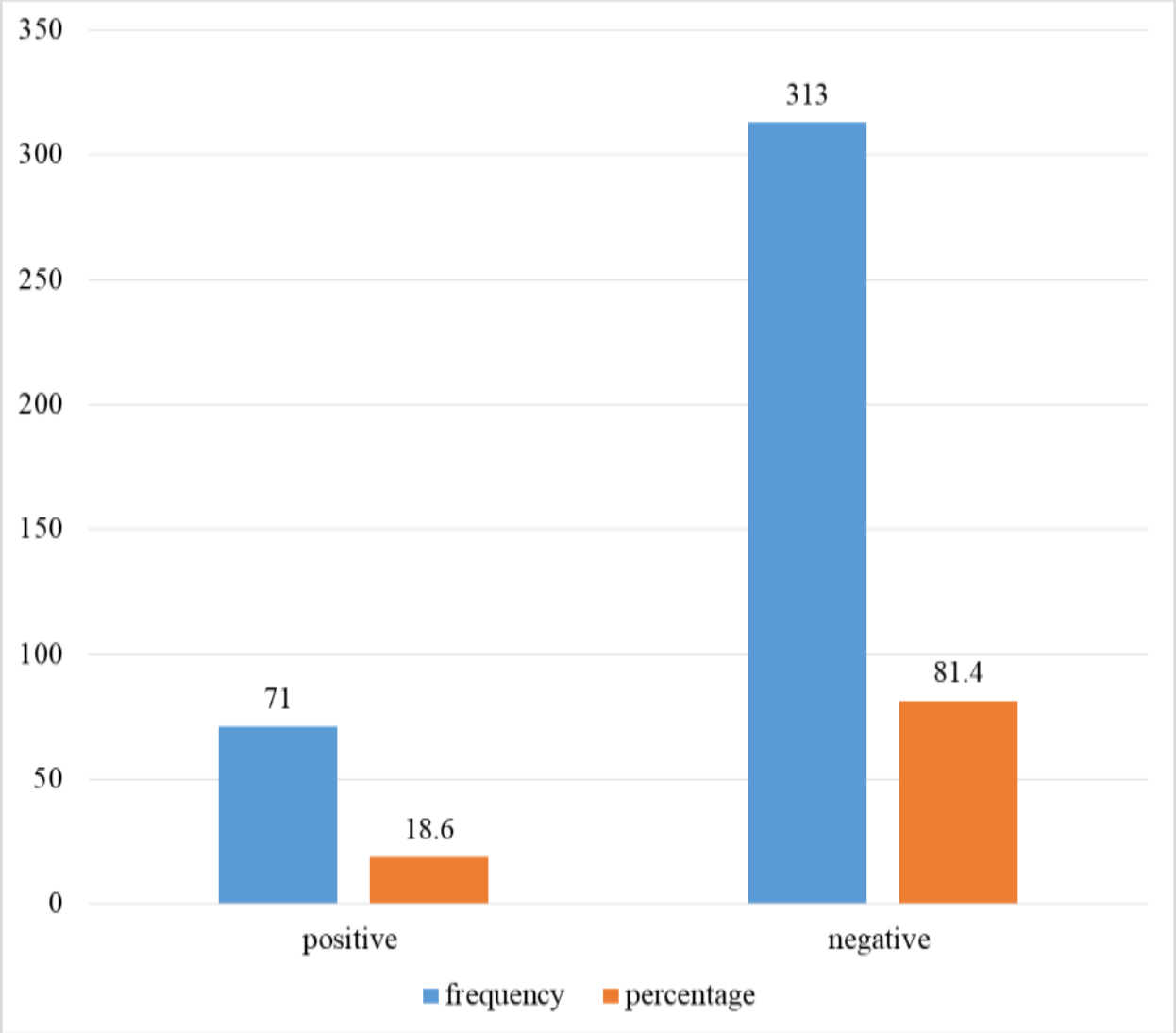

Figure 1: A graph illustrating prevalence of teenage pregnancy among youth aged 15-19 years in Magambo town council

From the figure 1 above, 71(18.6%) were pregnant or have delivered a baby while 313(81.4%) were not pregnant. Thus, the prevalence of teenage pregnancy among youths aged 15-19 years in Magambo town council was 18.6%.

Table 2: Bivariate analysis of socio-demographic factors that are associated with teenage pregnancy among youths aged 15-19 years

Variables	Teenage pregnancy		Odd ratio	P-value
	Positive	Negative		
Sex				
Female	71	313	1.355	0.628
Religion				
Catholic	23	122		
Muslim	20	114		
Protestant	20	8	0.971	0.880
Born again	650	24		
SDA	0	24		
Anglican	8	20		
Marital status				
Single	30	145		
Married	26	85	1.111	0.695
Divorced	5	63		
Education				
Primary	20	49		
Secondary	54	216	0.973	0.584
University	5	29		
Tertiary	0	10		

Table 2 shows that none of the socio demographic factor has p-value less than 0.2. Thus, the multivariate analysis was not carried which makes it conclusive that none of the socio demographic factor influence teenage pregnancy.

Table 3: Bivariate analysis of other factors that are associated with teenage pregnancy among youths aged 15-19 years

Variables	Teenage pregnancy		Odd ratio	P-value
	Positive	Negative		
qualified on issues related to teenage pregnancy and sexuality in the last five years				
Yes	12	91	0.678	0.641
No	59	222		
Is there distribution of condoms and guidance provided on use of condoms				
Yes	8	110	0.261	**0.148**
No	63	203		
At what age did have your first sex				
Before 15 years	12	36	1.365	0.771
After 15 years	59	277		
Number of partners				
1	51	267	0.180	**0.060**
2	16	16		
3	4	0		
Do you regularly use condoms				
Yes	8	52	0.824	0.839
No	63	261		
Do you use any drug before sex				
Yes	0	24	0.000	0.999
No	71	288		
Have many sex partners did you have last year				
One	43	281	1.224	0.767
Two	24	24		
More than two	4	8		

Table 3 shows above shows that distribution of condoms and guidance provided on use of condoms together with number of partners had p-value less than 0.2. Thus, were proceeded for multivariate analysis.

From the tale below, number of partners (3 Vs 1), was significant to teenage pregnancy results. Participants with one partner were 56% less likely to be pregnant, compared to those with 3 partners, (aOR=0.442, 95% CI=0.213-0.922).

Table 4: Multivariate analysis: of other factors that are associated with teenage pregnancy among youth aged 15-19 years

	aOR	95%CI	p-value
Is there distribution of condoms and guidance provided on use of condoms			
Yes	1.00		
No	0.226	0.047-1.080	0.062
Number of partners			
3	1.00		
2	1.652	0.916-2.840	0.27
1	**0.442**	**0.213-0.922**	**0.03**

DISCUSSION

In this study the prevalence of teenage pregnancy among the youth aged 15-19 years in Magambo town council was 18.6%. This is low compared to 24% in a study in 2011[15]. However, the study prevalence is high when compared with 11% of all deliveries globally are between 15–19-year-old females, with 95% of adolescent child births occurring in developing countries [18, 19].

In this study, number of partners was significant with prevalence of teenage pregnancy among youth aged 15-19 years that is participants with one partner had less chances of 56% less likely to be pregnant compared to those with 3 partners.

CONCLUSION

The prevalence of teenage pregnancy among youth aged 15-19 years was high which was significantly associated with number of partners that is having more than one partner increases the teenage pregnancy.

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