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Research Article

Factors Contributing to the Prevalence of Adolescent Pregnancy in Pajulu Sub County, Arua District

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Abstract

Introduction and problem: Adolescent pregnancy is a public health concern in both developed and developing countries. Globally, it affects more than 16 million girls and young women .It is estimated that about 11% of births worldwide are to adolescents aged 15-19 years, more than 90% of which occur in low and middle income countries (WHO, 2014). Adolescent pregnancy is a concern in Uganda despite the endless efforts put in place by Ministry of Health and the other health stakeholders to reduce and stop it. This study focused on assessing factors contributing to adolescent pregnancy in Pajulu Sub-county, Arua district.

Objectives: To assess the health service related, individual, and social cultural factors contributing to the prevalence of adolescent pregnancy in Pajulu Sub-county, Arua district.

Methodology: The study employed a descriptive cross-sectional research design involving both qualitative and quantitative approaches. It was conducted in Pajulu Sub-county, Arua district, West Nile region among adolescent girls, adolescent mothers and pregnant adolescents aged between 12 to 19 years, and some key informants in the community.

Results: The prevalence of teenage pregnancy in Pajulu Sub County was found to be 22.7%. Negative attitude of the health workers, lack of adolescent specific S/RH services, contraceptive nonuse, peer pressure, alcohol, cultural norms, family neglect, adolescent's education level, and adolescent's poor social status were found to be significantly associated with adolescent pregnancy.

Conclusions and recommendations: The relatively high prevalence of adolescent pregnancy and the factors contributing to it pose a task for all stakeholders in the communities and nationwide to work towards addressing the problem. Therefore parents, community members, schools, and health workers are recommended to adopt a culture of discussing sexual and reproductive health issues, advocating for abstinence and where necessary, contraception be made open and accepted without stigma.

Keywords: adolescents; pregnancy; health services; individual factors

1. Introduction

Adolescent pregnancy is defined as pregnancy in girls aged 10 to 19 years (Getachew, A, A, & Alemayehu, 2018). Adolescent pregnancy is a public health concern in both developed and developing countries. Globally, it affects more than 16 million girls and young women. It is estimated that about 11% of births worldwide are to

adolescents aged 15-19 years, and more than 90% of these occur in low- and middle-income countries (WHO, 2014).

In Africa, the overall pooled prevalence of adolescent pregnancy is 18.8% (Getachew, A, A, & Alemayehu, 2018). In East Africa, almost 10% of young women give birth by age 16 (Neal, Chandra-Mouli, & Chou, 2015).Uganda has one of the highest rates of adolescent pregnancy in Sub-Saharan Africa (State of Uganda Population Report , 2018). It is reported that, a high proportion of women in Uganda give birth between the ages of 15-19 (25%), and a high total fertility rate of 5.4 (UDHS , 2016). State of Uganda Population Report also reveals that 25% of adolescent girls become pregnant before the age of 20. Cases of pregnancy for children below 15 years are common; however, this data is not captured in the UDHS (State of Uganda Population Report , 2018).

Lack of access to sexual and reproductive health information education and services, including contraception by the sexually active adolescent girls - is a major factor contributing to unplanned teenage pregnancy and maternal death and many suffer complications from pregnancy including obstetric fistula. The highest proportion of Uganda's population is young, 48 percent of the population consist of young people under the age of 15 years (State of Uganda Population Report , 2018). In addition, 25.7 % of the population are adolescents (10-19 years) and 35.2% is a young person (10-24) (UBOS, 2018). Although the UDHS data 2016 indicates that the total fertility rate in Uganda has declined from 7.4 children per woman in 1988-89 to 5.4 in 2016, teenage fertility has instead risen (UDHS , 2016).The adolescent pregnancy rate stands at 25% which has increased from the 24% in 2011 (UDHS , 2016; UDHS, 2011). In West Nile, the TFR is six children per woman, which is higher than the national average of 5.4 children per woman (State of Uganda Population Report , 2018). At least 22.4% of the adolescent girls aged 15-19 in West Nile have begun child bearing (UDHS , 2016). This is a relatively high prevalence of adolescent pregnancy.

The issue of adolescent fertility is important on both health and social grounds. Children born to very young mothers are at increased risk of sickness and death. Teenage mothers are more likely to experience adverse pregnancy outcomes and are more constrained in their ability to pursue educational opportunities than young women who delay childbearing (UDHS , 2016). Adolescent pregnancy is commonly associated with adverse psychosocial, socioeconomic, and health outcomes (Sedgh, Finer, Bankole, Michelle, & Singh, 2015).Teenage pregnancy contributes up to 28 percent of maternal deaths in Uganda (State of Uganda Population Report , 2018).

Teenage pregnancy is also associated with a significantly higher risk of pregnancy-induced hypertension (PIH), eclampsia, and premature onset of labor, premature delivery and fetal deaths. Increased neonatal morbidity and mortality are also seen in babies delivered to teenage mothers (Kumar, Singh, Basu, Pandey, & Bhargava, 2007). Previous studies have reported an increased incidence of adverse maternal and perinatal outcomes such as low birth weight, preterm delivery, perinatal deaths, cephalo-pelvic disproportion and maternal death. Research has identified determinants of adolescent pregnancy and childbirth globally and in sub-Saharan African settings such as Uganda (Blum, et al., 2014; Sedgh, Finer, Bankole, Michelle, & Singh, 2015; World Health Organisation, 2014).

Over the past 25 years, adolescent pregnancy and birth rate have shown a decreasing trend across the industrialized world. The reasons for this general trend are increased importance of education, easy access to contraception, implementation of policy on marriageable age, goals other than motherhood and family formation for young women. Economic, social development and progress of any country depend on the healthy adolescent size (Seetesh & Lopamudra, 2017). However, there is still a paucity of information about why there is a high prevalence of adolescent pregnancy in Arua district despite the multiple interventions put in place by the ministry of health and the other health stakeholders to stop adolescent pregnancy.

2. Methodology

2.1. Study Design

The study employed a descriptive cross-sectional design involving both qualitative and quantitative approaches known as mixed methodology.

2.2. Study site and Setting

The study was conducted in Pajulu Sub-county, Arua district, West Nile region. Pajulu Sub-county has 9 parishes and 84 villages. The population of Pajulu by 2014 was 24,400 males and 26,800 females, a total population of 51,200 then. The major economic activity in this area is Agriculture.

2.3. Study Population

Adolescent girls, adolescent mothers and pregnant adolescents aged 12 to 19 years, and the health service providers, Village Health Team members, head teachers and elders in the community constituted the study population.

2.4. Study Procedures

Ethical approval was obtained from the department of public health. The permission to conduct the study was obtained from Lira University, Arua district health office and Pajulu Sub-county LC111, and other local authority personnel in the Sub-county.

Before the research began, the questionnaire and interview guide were pre tested in one village where the actual data collection was not carried out. Repetitions, overlapping response options and other inconsistencies in the tools were identified and corrections were then made to ensure that relevant data was collected. Thereafter the researcher moved from house to house to gather information from the participants in the selected villages

2.5. Sample Size determination

The sample was determined using Leslie Kish formula (1965) for single proportion.

2.6. Data collection method and tools

Data was collected using questionnaires and interview guides

2.7. Quality Control

Validity: A pilot survey was performed to pretest the tools a week before actual data collection and adjustments made accordingly. In addition, the questions were asked in Lugbarati to ensure that the respondents comprehend what was asked. In addition, data quality checks were done in the field, after data collection as well as before and during the data processing for completeness and consistency.

Reliability: To address the reliability in this study, the same questionnaire and interview guide were used to collect data from participants and only the researcher conducted all the interviews.

2.8. Data analysis

Data was analyzed using SPSS version 23 at univariate and bivariate and presented in Tables, pie-charts and graphs

2.9. Ethical Consideration

This was assured through informed Consent, Confidentiality, privacy and approvals.

3. Results

3.1 Socio-Demographic Characteristics Of The Respondents

Table 1. Socio-demographic characteristics of the respondents

Socio-demographic characteristics		Frequency	Percent
Age	Upper age (15-19)	212	76.5
	Lower age (12-14)	65	23.5
	Total	277	100.0
Place of residence	Village	83	30.0
	Urban	194	70.0
	Total	277	100.0
Parent's occupation	Informal/none	164	59.2
	Formal	113	40.8
	Total	277	100.0
Respondent's occupation	working/none	121	43.7
	Student	156	56.3
	Total	277	100.0
Highest education level	Primary education	172	62.1
	secondary and tertiary	105	37.9
	Total	277	100.0

Respondent's religion	Muslim	40	14.4
	Christian	237	85.6
	Total	277	100.0
Marital status	Married	71	25.6
	Single	206	74.4
	Total	277	100.0
Age at Marriage	15-19	71	100
	Total	71	100.0

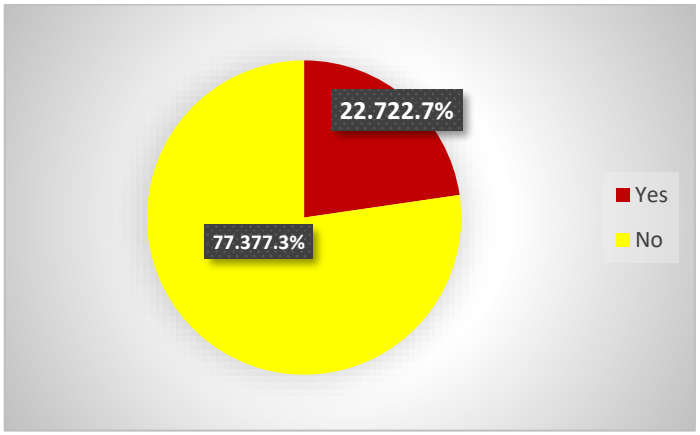
Source: Data from respondents, January 2020.

The results from the above table show that the majority, 212 (76.5%), of the respondents were 15-19 years old. A few, 65 (23.5%) were 12-14 years old. And majority, 194 (70%), of the respondents lived in the urban parts of the Pajulu sub-county. One hundred sixty-four (59.2%), respondents' parents had informal occupations or were not having any occupation. More than half, 156 (56.3%), of the respondents were students. The highest level of education for majority, 172 (62.1%), of the respondents was primary. Most, two hundred thirty-seven (85%), of the respondents were Christians whereas a few, 40 (14.4%), were Muslims. Almost three quarters, 206, (74.4%) of the respondents were single and 71, (25.6%) were married. All the married respondents, 71 (100%) got married at 15-19 years of age.

3.2 Prevalence Of Adolescent Pregnancy

The study set out to establish the prevalence of adolescent pregnancy in Pajulu Sub County and the findings are presented below.

Figure 1. Percent frequency of respondents who had ever had pregnancy



Source: Data from respondents, January 2020.

A significant number, sixty-three (22.7%) of the respondents had ever had pregnancy. And more than three quarters, 214 (77.3%) had never been pregnant.

Among the key informants, the dominant view about the prevalence of teenage pregnancy in Pajulu Sub County was that it is very high. Key informant 2 reported;

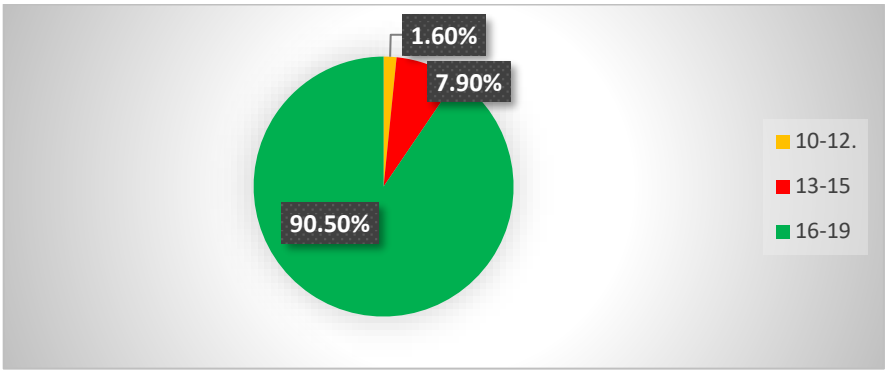
> *"Every day at this health center, at least four mothers are adolescents. And if you come here on a Wednesday which is tomorrow, you will find it evident that the rate of adolescent pregnancy is high".*

However, there was also a divergent view among some key informants living in the urban areas of the sub county. They said the prevalence is not so high in the urban areas because most of the girls are in school. Key informant 4 reported;

> *"Teenage pregnancy is very rare in this village. Most of the girls I see around are in school and also when we check households, I don't find many cases of teenage pregnancy".*

Age at first pregnancy

Figure 2. Percent frequency of respondents who had their first pregnancies in the following age groups



Source: Data from respondents, January 2020**.**

Majority, 57 (90.5%) of those who had ever been pregnant had their first pregnancies at the ages 16-19. Only one, (1.6%) had her first pregnancy at the age of 12. However, a few, five (7.9%) also had their first pregnancies at the ages 13-15.

Planned pregnancy

Table 2. Frequency of respondents who had planned first pregnancy (among respondents who have ever had pregnancy).

Planned pregnancy		Frequency	Percent
	Yes	7	11.1
	No	56	88.9
	Total	63	100

Source: Data from respondents, January 2020.

There was a high prevalence, 56 (88.9%) of unplanned first pregnancy among the respondents. And only very few, 7 (11.1%) had planned their first pregnancy.

3.3 Health-Service Related Factors Contributing To Adolescent Pregnancy

Presented below are the findings of the health-service related factors in Pajulu sub county that the study set out to determine.

Table 3. Health service-related factors contributing to adolescent pregnancy

Health service- related factors		Frequency	Percent
Lack of	Yes	50	18.2

privacy/confidentiality	No	224	81.8
	Total	274	100.0
Lack of adolescent health education	Yes	153	55.8
	No	121	44.2
	Total	274	100.0
Lack of adolescent counselling	Yes	156	56.9
	No	118	43.1
	Total	274	100.0
Lack of contraceptives	Yes	74	27.3
	No	197	72.7
	Total	271	100.0
Negative attitude of health workers	Yes	70	25.7
	No	202	74.3
	Total	272	100.0

Source: Data from respondents, January 2020.

More than half, 153(55.8%) of the respondents reported lack of adolescent health education. And many, 156(56.9%) respondents reported lack of adolescent counselling. Seventy-four (27.3%) respondents reported lack of contraceptives. Additionally, nearly a quarter of the respondents reported negative attitude of the health workers. And 50(18.2%) of the respondents reported lack of privacy/confidentiality. Interestingly, the key informants had mixed opinions about the health service-related factors contributing to teenage pregnancy. Some refused the fact that health service-related factors contribute to teenage pregnancy. Others blamed it on the lack of adequate community dialogue, which they perceive should be done by the parents and their children, and in schools. Key informant 6 explained;

> *"I don't think health service provision is a factor. Some parents send their girls back when they come back home very late in the night and this forces the girls to get married very early. If only parents could guide their children very well, teenage pregnancy would not be happening"*

While others think that, the lack of contraceptives and the money charged for SRH services in some private health centers and the very distant government health facilities could be contributing factors to teenage pregnancy. Key informant 7 said;

> *"Some of these nearby private health centers do not provide contraceptives. Moreover, they even charge a lot of money for their services. This results in girls practicing unprotected sex and hiding in their homes because they can't go to government health facilities which are very faraway"*

Many of the health worker key informants reported that adolescent specific counselling, contraceptives, and health education, were provided in the government aided health centers. Key informant 2 emphasized;

> *"We give them counselling and health education, we give them condoms, we also do diagnostic tests of malaria on them, we do HIV/STI counselling and testing, then for the ones who are pregnant we provide for them antenatal care, we deliver the ones who come for delivery, and we enroll those who test positive for HIV on ART, and also, we refer those whom we can't manage and then we do follow ups"*

In addition, differently to that, some key informants in private health centers reported that they don't provide contraceptives/family planning services because the health center is catholic founded. They also do not provide adolescent specific health

services. Nevertheless, they provide counselling and health education both at the health facility and in the nearby schools. Key informant 5 narrated;

> *"When the young ones come around, we only test, counsel and health educate them,"* She continued, "*We don't do family planning because the church doesn't allow it, so we refer mothers to the main hospital*". She again added, "*When the adolescents come, we advise them to use contraceptives though we don't have them here*"

However, they all emphasized the lack of community-based health education on sexual and reproductive health issues in the villages. There are no discussions between women and girls on issues regarding sexual and reproductive health in the community. Key informant 1 explained;

> *"These girls are not given sex education by their parents; they discover things by themselves".*

Some key informants explained that a few families choose to guide and counsel their girls but the girls also have a negative attitude towards such discussions at home. Key informant 7 explained;

> *"The discussions related to sexual and reproductive health are held in some families but these girls do not want to listen. They are not interested in them".*

Similarly, the church in some communities plays the role of health education. Key informant 6 said:

> *"On some Sundays, church meetings are held with parents where they are advised to guide their children. And also, the youth are gathered after rosary on some Sundays for health education".*

When the key informants were asked about the challenges they face during the provision of sexual and reproductive health services, they emphasized the negative attitude of the girls towards these services and their fear to express themselves and come out openly on SRH issues. Key informant 2 explained;

> *"These girls have negative attitude towards these services. And they fear to talk and express themselves. The problem is in the community and the families; they only seek help when they are already pregnant"*

Table 4. Bivariate analysis of relationship between pregnancy status and the health service-related factors.

Health service-related factors		Pregnant /has ever been pregnant		COR at 95% CI	P Value
		Yes	No		
Lack of privacy/confidentiality	Yes	14 28.0%	36 72.0%	1.307 (0.784-2.177)	0.315
	No	48 21.4%	176 78.6%	0.916	
Total		62 22.6%	212 77.4%		
Lack of health education	Yes	49 32.0%	104 68.0%	2.981 (1.698-5.235)	**0.000***
	No	13 10.7%	108 89.3%	0.762	
Total		62	212		

		22.6%	77.4%		
Lack of adolescent counselling	Yes	44 28.2%	112 71.8%	1.849 (1.129-3.029)	**0.011***
	No	18 15.3%	100 84.7%	0.847	
Total		62 22.6%	212 77.4%		
Lack of contraceptives	Yes	27 36.0%	47 64.0%	2.016 (1.317-3.086)	**0.001***
	No	35 17.9%	162 82.1%	0.779	
Total		62 22.9%	209 77.1%		
Negative attitude of health workers	Yes	22 31.4%	48 68.6%	1.587 (1.019-2.473)	**0.046***
	No	40 19.8%	162 80.2%	0.855	
Total		62 22.8%	210 77.2%		

Source: Data from respondents, January 2020

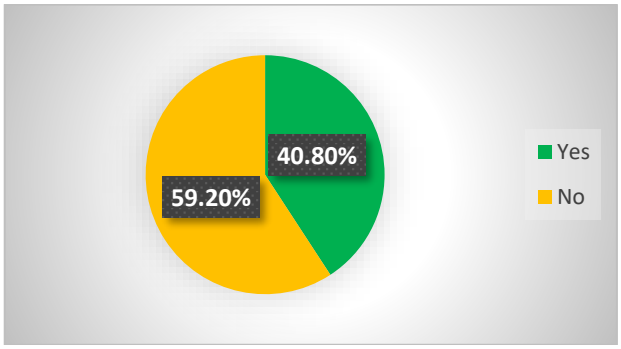
The bivariate analysis of health service-related factors revealed that respondents who complained of lack of adolescent health education were 2.981 times more likely to become pregnant (P=0.000, OR=2.981, 95%CI=1.698-5.235). Respondents who complained of lack of contraceptives were 2.016 times more likely to get pregnant (P=0.001, OR=2.016, 95%CI=1.317-3.086). Additionally, respondents who complained of lack of adolescent counselling were 1.849 times more likely to become pregnant (P=0.011, OR=1.849, 95%CI=1.129-3.029). And respondents who complained of negative attitude of the health workers were 1.587 times more likely to become pregnant (P=0.046, OR= 1.587, 95%CI=1.019-2.473). Lack of privacy/confidentiality was more likely to contribute to adolescent pregnancy though not statistically significant.

3.4 Individual Factors Contributing To Adolescent Pregnancy

The study also set out to ascertain the individual factors contributing to adolescent pregnancy in Pajulu sub county and the findings are presented below;

Sexual activity

Figure 3. .Figure 4: Percent frequency of respondents who had ever had sex

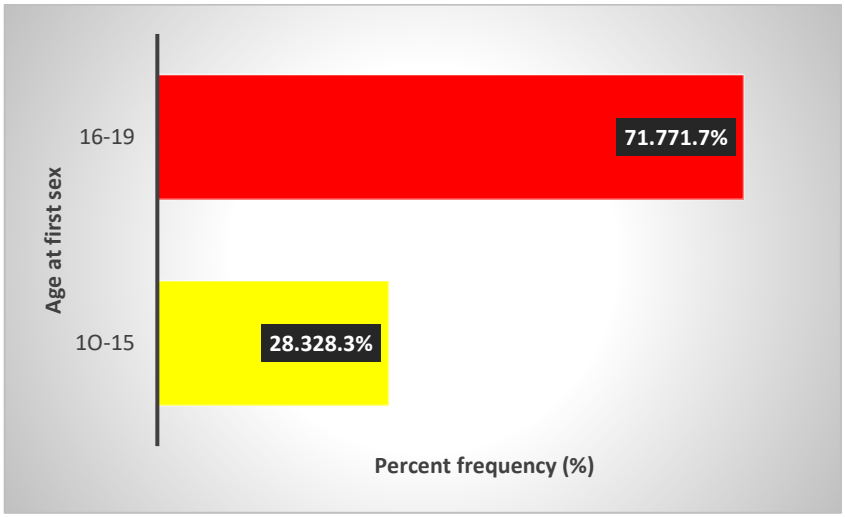


Source: Data from respondents, January 2020**.**

Many, 113(40.8%) respondents reported to have ever had sex. However, more respondents, 164 (59.20%) had never had sex.

Age at first sex

Figure 5. Percent frequency of the respondents' age at first sex



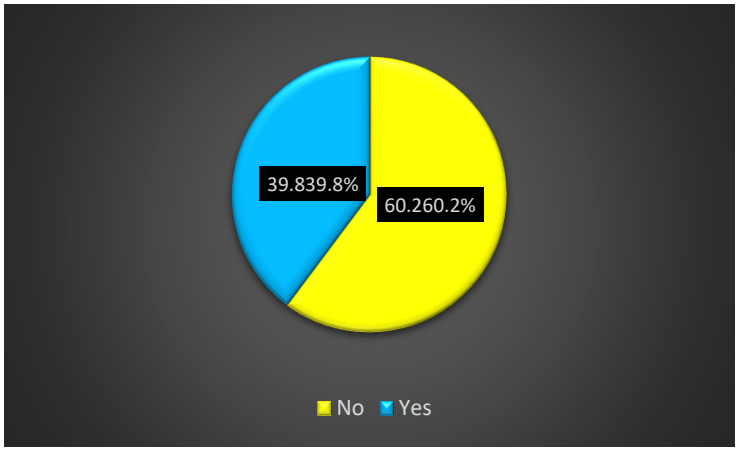
Source: Data from respondents, January 2020.

Among those who had ever had sex, 81 (71.7%) of the respondents reported to have had their first sex at the age of 16-19. Almost one-third, 32(28.3%) of the respondents reported to have had their first sex at 10-15 years of age. Interestingly, the key informants explained in agreement that the girls start hunting for boys and start having sex at an early age. Key informant 1 explained;

> *"Once the girls start experiencing their menstrual periods, they begin searching for boyfriends to give them money for buying petty things like make-up"*

Contraceptive use

Figure 6. Percent frequency of respondents who used a birth control method



Source: Data from respondents, January 2020**.**

Only 45 (39.8%), of the respondents who had ever had sex used a birth control method during sex. Majority, 68 (60.2%) of them did not use any birth control method during sex. The key informants however expressed mixed views about the use of contraceptives by the adolescents. For instance, key informant 6 said;

"Some of the girls use them while others don't. It depends on their knowledge and attitude"

Age at start of contraceptive

Table 5. Frequency of respondents' age at start of contraceptive use

Age		**Frequency**	**Percent**
Age at start of contraceptive use	10-15	6	13.3
	16-19	39	86.7
	Total	45	100.0

Source: Data from respondents, January 2020

Majority, 39 (86.7%) of those who use contraceptives started contraceptive use at the age of 16-19. In addition, a few, six (13.3%) started at the age of 10-15.

Reason for non-contraceptive use

Table 6. Frequency of respondents' reasons for non-contraceptive use

Reason		**Frequency**	**Percent**
Reason for contraceptive non-use	don't like any of them	47	69.1
	don't know them	10	14.7
	Husband's decision	11	16.2
	Total	68	100.0

Source: Data from respondents, January 2020

Many, 47 (69.1%) of those who do not use condoms do not like them, and 11 (16.2%) of them do not use condoms because of their husbands' choice not use them. And 10 (14.7%) do not know any contraceptives.

Interestingly, the dominant views among the key informants about the individual factors contributing to teenage pregnancy were the negative attitude of the girls towards contraceptives, counselling and health education, and lack of knowledge on the contraceptives. For instance, key informant 2 emphasized;

> *"Some of the girls don't like the contraceptives, counselling and health education, and they just follow what their peers tell them, and some of them don't know much about these contraceptives".*

Table 7. Bivariate analysis of relationship between pregnancy status and individual factors

Individual factors		Pregnant /has ever been pregnant		COR at 95% CI	P value
		Yes	No		
Age at first sex	10-15	18 56.2%	14 43.8%	1.013 (0.705-1.455)	0.947
	16-19	45 55.6%	36 44.4%	0.984	
Total		63 55.8%	50 44.2%		
Uses any birth control method	No	52 76.5%	16 23.5%	3.128 (1.841-5.317)	**0.000***
	Yes	11 24.4%	34 75.6%	0.311	
Total		63 55.8%	50 44.2%		
Age at start of contraceptives	10-15	1 16.7%	5 83.3%	0.650 (0.100-4.206)	0.634
	16-19	10 25.6%	29 74.4%	1.121	
Total		11 24.4%	34 75.6%		

Source: Data from respondents, January 2020

Bivariate analysis of individual factors revealed that respondents who used any birth control method were 3.128 times more likely to get pregnant (P=0.000, OR=3.128, 95%CI=1.841-5.317). Those who started having sex at an earlier age, 10-15 were more likely to get pregnant and, those who started contraceptive use at a later age, 16-19 were more likely to get pregnant. However, age at first sex and age at start of

contraceptive use were not statistically significantly associated with adolescent pregnancy.

3.5 Socio-Cultural Factors Contributing To Adolescent Pregnancy

Below are the presentations of the socio-cultural factors the study set out to determine.

Table 8. Socio-cultural factors contributing adolescent pregnancy

Socio-cultural factors		Frequency	Percent
Peer Pressure	Yes	246	88.8
	No	31	11.2
	Total	277	100.0
Media	Yes	157	56.7
	No	120	43.3
	Total	277	100.0
Drinking alcohol	Yes	25	9.0
	No	252	91.0
	Total	277	100.0
Cultural norms	Yes	53	19.2
	No	223	80.8
	Total	276	100.0
Family neglect	Yes	189	68.5
	No	87	31.5
	Total	276	100.0
Parent's low education level	Yes	161	58.3
	No	115	41.7
	Total	276	100.0
Adolescent's education level	Primary education	172	62.1
	secondary and tertiary	105	37.9
	Total	277	100.0
Adolescent's low education level	Yes	183	66.3
	No	93	33.7
	Total	276	100.0

Source: Data from respondents, January 2020

Many, 246 (88.8%) respondents reported peer pressure as a contributing factor to adolescent pregnancy. The key informants also agreed to the view that peer pressure contributes to adolescent pregnancy. Key informant 1 explained;

> *"They are influenced by their friends at school and so, they come back with changed behavior, unwilling to listen to the parents' advice"*

More than half, 157 (56.7%) of the respondents reported media as a contributing factor to adolescent pregnancy. Interestingly the key informants explained that the pornographic videos and images on media push the adolescents to experiment what they see. Key informant 7 said;

> *"This new technology with videos and images of naked pictures and sex scenes everywhere on televisions, phones and computers encourages these young people to try to engage in such risky sexual activities"*

In addition, a few, 25 (9.0%) respondents reported drinking alcohol. Similarly, key informants were of the view that alcohol increases the adolescents' chances of getting pregnant. Key informant 2 explained;

> *"These girls drink alcohol at night at the trading centers and discos where they are raped and defiled"*

And majority, 202 (73.5%) of the respondents reported adolescent's poor social status. The key informants were of the view that poverty forces the girls to engage in commercial sex to get money to buy their needs and help their families. Key informant 6 explained;

> *"These girls lack school fees and school requirements and as a result they engage in prostitution, getting boyfriends for financial support, and yet they are unable to negotiate for condoms and contraceptives and hence they are always seeking for PEP"*

And some key informants explained that due to poverty, some parents send the girls to do business on the streets at an early age. This exposes them to the risk of adolescent pregnancy. Key informant 4 also explained;

> *"They are introduced to money at an early age and so they lose interest in school. Selling bananas on the streets also exposes the young girls to boys and men with sexual intention".*

Additionally, many, 189 (68.5%) of respondents reported family neglect as a factor contributing to adolescent pregnancy. Similarly, the key informants were of the view that there is lack of adequate parental guidance for the girls. Key informant 3 explained;

> *"Parents don't care, they don't complain even when the girls go for discos and drink."*

Key informant 1 also said;

"The girls have freedom to do anything. The parents leave very early to go to the markets and farms and come back very late. And they don't sex educate these girls at home; they discover things themselves"

More than half of the respondents, 161 (58.3%), also reported parent's low educational level. And majority, 172(62.1%) of the respondents reported primary no education and primary education level of the adolescent as a factor contributing to adolescent pregnancy. Additionally, the key informants were of the view that the low educational level of both the adolescents and their parents is a contributor to adolescent pregnancy. They said that:

> *"Majority of these girls stopped in classes below P.5 and so they are very idle, they have time to engage in unhealthy sexual activities"* (Key informant 2)
>
> *"The parents have very low education levels and most of them did not go to school, so, they don't value education for the girls"* (Key informant 3)

In comparison to all the other socio-cultural factors, cultural norms were reported least, by 53 (19.2%) respondents. The key informants reported forced marriages as a major cultural contributor to adolescent pregnancy. Key informant 6 explained;

> *"Some parents force a girl to get married when they realize the girl has a boyfriend, marrying them to very young teenage boys because they see their girls as a source of wealth"*

However, some key informants had different views about forced marriages. They argued that forced marriages are only common in the rural areas but in the urban areas, they are rare. For instance, key informant 6 explained that;

"It is rare for parents around town to force their children into marriage. Nevertheless, in the rural areas, it is very common. And moreover, some of them do it secretly without the notice of the elders".

Table 9. Bivariate analysis of relationship between pregnancy status and socio-cultural factors

Socio-cultural factors		Pregnant /has ever been pregnant		COR at 95% CI	P value
		Yes	No		
Peer pressure	Yes	61 24.8%	185 75.2%	3.843 (0.988-14.945)	0.022*
	No	2 6.5%	29 93.5%	0.804	
Total		63 22.7%	214 77.3%		
Media	Yes	41 26.1%	116 73.9%	1.424 (0.899-2.257)	0.126
	No	22 18.3%	98 81.7%	0.905	
Total		63 22.7%	214 77.3%		
Drinking alcohol	Yes	10 40.0%	15 60.0%	1.902	
	No	53 21.0%	199 79.0%	0.760 (0.548-1.053)	0.031*
Total		63 22.7%	214 77.3%		
Cultural norms	Yes	25 47.2%	28 52.8%	2.768 (1.844-4.155)	0.000*
	No	38 17.0%	185 83.0%	0.637	
Total		63 22.8%	213 77.2%		
Family neglect	Yes	50 26.5%	139 73.5%	1.770 (1.017-3.084)	0.034*

	No	13 14.9%	74 85.1%	0.865	
Total		63 22.8%	213 77.2%		
Parent's low education level	Yes	43 26.7%	118 73.3%	1.536 (0.957-2.466)	0.069
	No	20 17.4%	95 82.6%	0.887	
Total		63 22.8%	213 77.2%		
Adolescent's education level	No education and primary	48 27.9%	124 72.1%	1.953 (1.154-3.307)	0.009*
	secondary and tertiary	15 14.3%	90 85.7%	0.841	
Total		63 22.7%	214 77.3%		
Adolescent's poor social status	Yes	55 27.2%	147 72.8%	2.485 (1.244-4.962)	0.005*
	No	8 11.0%	65 89.0%	0.817	
Total		63 22.9%	212 77.1%		

Source: Data from respondents, January 2020

The bivariate analysis of the socio-cultural factors revealed that respondents who reported peer pressure were 3.843 times more likely to get pregnant (P=0.022, OR=3.843, 95%CI=0.988-14.945). Respondents who do not smoke or drink alcohol were less likely to get pregnant (P=0.031, OR=0.760, 95%CI=0.548-1.053). In addition, respondents who reported cultural norms were 2.768 times more likely to get pregnant (P=0.000, OR=2.768, 95%CI=1.844-4.155). Respondents who reported family neglect were 1.770 times more likely to get pregnant (P=0.034, OR=1.770, 95%CI=1.017-3.084). Moreover, respondents who did not go to school and those whose highest education level was primary education were 1.953 times more likely to get pregnant (P=0.009, OR=1.953, 95%CI= 1.154-3.307). And respondents who reported poor social status of the adolescent were 2.485 times more likely to become pregnant (P=0.005, OR=2.485, 95%CI= 1.244-4.962). The other variables were not statistically associated with their pregnancy status

4. Dscussion Of Findings

4.1 Prevalence Of Adolescent Pregnancy

This study explains the factors associated with the prevalence of teenage pregnancy in Pajulu Sub County, Arua district. Results from this study show that the prevalence of adolescent pregnancy in Pajulu Sub County is 22.7%, close to the average rate in West Nile, which is 22.4%. This similarity could be due to the presence of some related sociodemographic, cultural and individual adolescent characteristics in West Nile region as a whole. However, the prevalence is lower than the average rate in Uganda, which is 25%, and lower than the average rate for rural areas in Uganda, which is 27%. These differences could be due to the differences in some sociodemographic, cultural and individual adolescent characteristics in the various regions in Uganda.

4.2 Health Service-Related Factors

Findings suggest that the generally, negative attitude of the health workers to adolescents is a significant factor contributing to teenage pregnancy. This is evident in the results whereby respondents who reported negative attitude of the health workers were 1.587 times more likely to get pregnant. Similar findings were reported in a study conducted in Australia, where many participants described the unfriendliness of the healthcare staff and were particularly worried, they would be scolded (Vanphanom, et al., 2018). This may cause the adolescents to fail to open up to the health workers due to fear of judgement since the health workers are presenting a negative attitude. Such conditions repel the girls away from the health facilities and they remain hiding in their homes missing the sexual and reproductive health services, which are of great importance to their health.

Evidently, another factor associated with teenage pregnancy is lack of convenient adolescent specific sexual and reproductive health services: counselling, contraceptives, and health education. Respondents who reported lack of health education (55.8%), adolescent counselling (56.9%), and health education (27.3%) were more likely to become pregnant. Similar findings were reported in a study conducted in Lao DPR, where the participants reported unavailable adolescent specific services (Vanphanom, et al., 2018). The findings of this study were also in line with the results of a study conducted in South Africa, which revealed that 73.1% of the participants indicated that services were not available on a 24-h basis. In addition, 56.3% of the participants were of the opinion that nurses do not provide health information relating emergency contraceptives (Lenny, Lydia, Solina, & Hellene, 2015).

Many of the health facilities in Pajulu do not provide adolescent specific health services. On top of that, some charge for the sexual reproductive health services they provide regardless of the age of the person seeking the services. This scares away the adolescents who lack the money to afford such services. This inability to freely access adolescent specific counselling, health education, and counselling results in the adolescents lagging behind on the knowledge of the right decisions to make concerning their sexual and reproductive health. This increases the vulnerability of these girls to the sexual and reproductive health risks.

Though lack of privacy/confidentiality was not found to be statistically significantly associated with the pregnancy status of the respondents in this study, 18.2% of the respondents reported it as a contributor to adolescent pregnancy. In a study conducted by Lenny et al. in South Africa similar results were found, for example adolescents generally perceived nursing staff as not very approachable and the relationship with the nurses was cited as poor by participants (72.1%) with regard to maintenance of confidentiality (Lenny, Lydia, Solina, & Hellene, 2015). In another study, lack of confidentiality and judgmental attitudes of the service providers were also strong disincentives for unmarried female adolescents to seek care (Vanphanom, et al., 2018).

4.3 Individual Factors

Contraceptive non-use was also found to be a significant contributor to adolescent pregnancy. One hundred and thirteen (40.8%) of the adolescents were sexually active, and of those, majority, 68(60.2%) did not use any birth control method. Additionally, adolescents who did not use any birth control method were 3.128 times more likely to get pregnant. Similar findings were reported in a study conducted in Northeast Ethiopia which revealed that contraceptive nonusers were more likely to be pregnant compared to those who used contraceptives (Yohannes, Anteneh, & Telake, Prevalence and Factors Associated with Teenage pregnancy, Northeast Ethiopia, 2017).

Many of the adolescents have a negative attitude towards these contraceptives. Some shy away from them. While others choose to follow their husband's decision. Most of these girls are not empowered enough to decide against their husbands' choices. While some just lack the knowledge of these contraceptives. There are also some misconceptions that discourage the girls from using these contraceptives. For example, some girls think that condoms get stuck in a girl's vagina during sex. There is generally lack of adequate counselling and health education that can effect change in the adolescents' attitudes, knowledge and decisions regarding contraceptive use.

The findings of this study suggest that age at first sex is not significantly associated with adolescent pregnancy. However, in another study conducted in Estonia, early sexual experience was found to be significantly associated with teenage motherhood (Kai, Kaja, Mati, & Helle, 2009).

Age at start of contraceptives was also found not to be significantly associated with adolescent pregnancy in this study. However, in a study conducted in Naguru Teenage center, teenagers who started the use of contraceptives at the age of 13 years and above were more likely to get pregnant (Akanbi, Afolabi, & Aremu, 2016).

4.4 Socio-Cultural Factors

Peer pressure is significantly associated with the prevalence of adolescent pregnancy in Pajulu Sub County. This is evident in the findings of this study whereby adolescents who reported peer pressure were 3.843 times more likely to become pregnant. A research in Capricorn district in Limpopo province also found similar results in which peer pressure was a significant contributor to teenage pregnancy (Tebogo & Maria, 2012). These girls are influenced by their peers at school and at home to engage in risky activities such as drinking alcohol, going for night discos, getting a boyfriend at

an early age, having sex at an early age, getting married too soon among others. These friends are also a source of misconceptions about sex and contraceptive use. Then, some of the girls refuse to listen to their parent's advice and choose to follow what their friends tell them. As a result, they end up making wrong decisions that may lead to adolescent pregnancy.

Another significant social cultural factor contributing to adolescent pregnancy is alcohol. Though only 25 (9%) of the girls drank alcohol, it was found that those who drank alcohol were 1.902 times more likely to get pregnant. A study by Tebogo et al found similar results whereby 8% of the adolescents drank alcohol (Tebogo & Maria, 2012). These girls escape at night to trading centers and discos where they drink alcohol and become so intoxicated and defenseless. It is in such situations where they easily get raped and defiled. Some parents are too occupied to notice that their girls are actually drinking and engaging in discos. This is because some girls escape at night when everyone else is asleep and no one is there to stop them. Alcohol results in unplanned pregnancies because the girls get to engage in sexual activities under the influence of alcohol, or by force when they are drunk and defenseless.

Cultural norms were also found to be significantly associated with adolescent pregnancy. Adolescents who reported cultural norms as a factor were 2.768 times more likely to get pregnant. These results are in line with the findings of a study by in Vanphanom et al which revealed that adolescent marriage and pregnancy is a cultural norm, with marriage after the age of twenty considered undesirable and indeed, many were concerned that if they were not married by the age twenty, they would not be attractive to men (Vanphanom, et al., 2018). There is a common culture in Pajulu Sub County where girls are seen as source of wealth and they are expected to marry as early as possible to bring wealth to their homes in terms of animals. In some homes, the girls are forced to get married once they are noticed to be having boyfriends. This predisposes them to early sex and pregnancy. On top of that they are forced to discontinue their education.

Another significant contributor to adolescent pregnancy is family neglect. The findings of this study support this in the sense that 189 (68.5%), respondents reported family neglect as a social cultural factor. And those who reported family negligence were 1.770 times more likely to get pregnant. Similar findings were reported in a study conducted in Nigeria, which revealed that 46.7% of the adolescents admitted that lack of parenting care was responsible for teenage pregnancy (Achema , Emmanuel, & Moses, 2015). Family has a great influence over a girl's behavior and personality. Unfortunately, in this era, most parents do not have the time to monitor their children's behaviors and to correct them when they deviate from the norm. Parents wake up very early to go to the gardens, farms, and markets and come back very late in the evening leaving the girls to do whatever they want without being watched. The parents realize their negligence too late when the girls are already engaging in unhealthy sexual activities at an early age. Generally, there is lack of parental guidance in these families.

Adolescent's low educational status also significantly contributes to adolescent pregnancy. In the findings of this study, adolescents who were not educated and those whose highest level of education was primary education were 1.953 times more likely

to get pregnant compared to secondary and tertiary education. A study in Naguru teenage center reported similar results in that teenagers that were not educated and those with primary education were more likely to be pregnant (Akanbi, Afolabi, & Aremu, 2016). Most of the girls drop out of school so early when they are still in primary. Their parents do not seem to mind about them dropping out of school because they themselves did not go any further with education. Moreover, some parents do not value education for a girl child. After dropping out of school, these girls either engage in businesses or do nothing at all. This creates an idol mind. They therefore get a lot of time to engage in unhealthy activities such as early sex, moving at night to discos, boozing a lot, and prostitution.

Adolescent's poor social status is also significant contributor to adolescent pregnancy. This is evident in the findings of this study whereby adolescents who reported poor social status were 2.485 times more likely to become pregnant. These results are in line with the findings in a study conducted in Kibuku Town council, which revealed that 11.3% of the respondents reported that poverty was a factor contributing to teenage pregnancy. They further revealed that parents fail to provide basic needs to their children and they leave them to find options for themselves, parents give away their young girls into forced marriages to get money for survival or are encouraged to engage in sexual activity to get money for the family to live on (Fred, et al., 2018).

Poverty has many effects on an adolescent's life. Adolescents may drop out of school because they lack the money for school fees and for buying school requirements. Some girls are forced to engage in businesses on the streets to get money to buy their needs and to support their families. In addition, it is on these streets where they meet boys and men with sexual intentions. Poverty also forces some girls to engage in prostitution at an early age, this increases their vulnerability not only to adolescent pregnancy but also to HIV and other STIs. Orphans in the community are more likely to undergo the same experience or even worse.

Although media was found not be significantly associated with adolescent pregnancy in this study, in other studies, it was significantly associated. For example, a study in Capricorn district of Limpopo Province reported heightened sex-based messages in the media as a strongly associated contributor to teenage pregnancy (Tebogo & Maria, 2012).

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