Prevalence and Factors Associated with an Increase in the Number of Teenage Pregnancies in Chikupili Village-Luano District

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Abstract

Background: Teenage pregnancy in Zambia has continued to be a public health concern with 17% of women beginning their sexual activity before 15 years, and 69% before 18 years. 34% having given birth before 18 years and 29% between 15-19 years. Previous studies have outlined factors leading to teenage pregnancy as: low/no contraception use, poverty, poor sexual education and a bad parental relation. Due to the impact of teenage pregnancy (low birth weight, premature deliveries, and severe neonatal conditions, this study was undertaken with the aim of determining the prevalence and factors associated with an increase in teenage pregnancies in Chikupili village, Luano district-central province.

Method: A cross sectional design was used. The village was divided into clusters and simple random sampling was used to select 384 participants. A questionnaire tailored with both open and closed ended questions was used after informed consent had been granted by the participant. The statistical method used was the descriptive statistical analysis and *Chi Square* test method. The data was later entered and analyzed quantitatively using the Statistical Package for Social Scientists (SPSS) version 26.

Results: Out of the calculated sample size 384 a total of 384 individuals answered the questionnaire making the response rate to be 100%. The majority were female (n=278, 72.4%) while only 106 (27.6%) males took part in the study. Their ages ranged, with the highest frequency being among those 20 and below (210,54.7%), this study determined the prevalence of teenage pregnancies in Chikupili-Luano district to be 167 (48.8%), there was a correlation between age when first pregnant and marital status when first pregnant (p-value=0.036). This study determined that 69% of the participants had good knowledge regarding contraception and 70.7% of respondents had a good relationship with their parents. Correlations were found between the age when first pregnant and; marital status during first pregnancy (p value-0.036), sex of participant (0.000), age of participant (0.000). Another correlation was found between the relation level with parents and age of participant (0.000), level of education (p-value=0.02) and marital status during first pregnancy (p-value 0.000). On knowledge levels and relationship with parents, a correlation with p-value 0.03 was found. A P-value of less than 0.05 was considered significant.

Conclusion: This study showed that the prevalence of teenage pregnancy still remains high in Chikupili-Luano district despite the knowledge levels of contraception use and relationship with guardians being good. Other approaches can be taken such as ensuring girls getting educated to improve their education levels and providing better facilities for them to socialize and take part in social activities.

Keywords: Sexually transmitted diseases • Total fertility rate • Relationship

Abbreviations: WHO: World Health Organisation; UNICEF: Unite Nations Children Education Fund; MOH: Ministry of Health; SPPS: Statistical Package for Social Scientists; CSO: Central Statistics Office; ZDHS: Zambia Demographic Health Statistics

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Introduction

Background

Adolescent pregnancies are a global problem occurring in high, middle and low-income countries, however, the statistics are higher in marginalized communities, commonly driven by poverty and lack of education and employment opportunities [1-3]. Every year an estimated 21 million girls aged 15-19 years in developing regions become pregnant and approximately 12 million of them give birth [4]. At least 777,000 births occur among adolescent girls below the age of 15 years in developing countries [5]. The prevalence of teenage pregnancy in Africa is 18.8%, of this, 19.3% occurred in Sub Saharan Region and 21.5% in Eastern Africa [6]. In Africa, Zambia has continued to face a high prevalence of adolescent pregnancy over the past 15 years despite measures that have been put in place. Adolescent pregnancy poses a great health and socio-economic risk on the mothers and babies [7]. Pregnancy and childbirth complications are the leading cause of death among girls aged 15-19 years globally, with low and middle income countries accounting for 99% of global maternal deaths of mothers aged 15-49 years [8]. Adolescent pregnancy contributes to the maternal mortality and morbidity as about 3.9 million unsafe abortions are recorded yearly among the girls aged 15-19 [9]. Social and economic consequences associated with teenage pregnancy may include stigma, rejection and violence by partners [10]. Teenage pregnancy also is associated with high school dropout rate [11]. Adolescent pregnancy also has an impact on future earning potential hence leading to long lasting poverty several factors are associated with adolescent pregnancy and these include: early marriages as in many societies girls are pressured to marry and bear children at a tender age [12]. Lack of knowledge, access of Contraception has also been cited by many sources to be a potential reason for the increased rate of teenage pregnancy, the attitude by health care givers towards teenage contraceptive recipients and also government policies are also included [13]. Other factors include early sexual attainment, exposure to media, poverty, religion, family structure [14]. Though there are many studies that have looked at the prevalence and factors contributing to the rise in teenage pregnancy in Zambia, there is limited evidence of studies done in Central province. Therefore this study was aimed at determining the prevalence and factors associated with the rise in teenage pregnancy in Chikupili village, Luano District, Central Province of Zambia. The findings of the study could help policy makers, non-governmental organisations to come up with programmes that can help curb this problem.

Problem statement

The rise in teenage pregnancy in Zambia has continued to be a public health concern [15]. Unwanted pregnancies and hence early marriages are still at peak and pause a great risks of low birth weight, preterm delivery, and severe neonatal conditions [16]. A lack of pregnancy related knowledge among pregnant adolescent girls can adversely affect their lives as well as those of their unborn children [17]. Ideally, teenagers are expected to be in school throughout their teenage years but due to increase in school drop outs that are caused by early pregnancy, this goal has not been attained [18]. Unplanned teenage pregnancy due to due to low contraception use (10.6%) in Zambia remains a major public health concern [19]. In

addition, low knowledge levels and unmet need for contraception are related to young people's low utilization of reproductive health services and poor sexuality education both in and out of school hence leading to increased teenage pregnancies in Zambia [20]. Statistics show that 17% of women began sexual activity before the age of 15 years, while 69% began before the age of 18. On child bearing, 34 % women gave birth before 18 years, while teenage (15-19 years of age) pregnancy stood at 29% [21]. Currently there are few studies that examine the predictors of teenage pregnancy in the sub-Saharan Region which is the home of Zambia and hence it is with this background that this study is aimed at determining the prevalence and factors associated with teenage pregnancy in Chikupili village of Luano District, Zambia.

Literature Review

Globally, there are 1.2 billion adolescents aged 10-19 years [22]. Teenage pregnancies have remained a global phenomenon with nearly 25% of adolescent women having gotten pregnant worldwide [23]. Africa as a continent has been recorded to have had a teenage pregnancy prevalence of 18.8%, of this 19.3% occurring in Sub-Saharan Africa and 21.5% in Eastern Africa [24]. Adolescent pregnancy poses a great health and socio-economic risk on the mothers and babies [25]. Pregnancy and childbirth complications are the leading cause of death among girls aged 15-19 years globally, with low and middle income countries accounting for 99% of global maternal deaths of mothers aged 15-49 years [26]. Adolescent pregnancy contributes to the maternal mortality and morbidity as about 3.9 million unsafe abortions are recorded yearly among the girls aged 15-19. Social and economic consequences associated with teenage pregnancy may include stigma, rejection and violence by partners. Adolescent pregnancy also has an impact on future earning potential hence leading to long lasting poverty. In association with HIV, teenage pregnancy may impact HIV risk through numerous pathways such as biological changes in pregnancy which might affect immune response or the genital tract may increase HIV acquisition. Another pathway may include the frequent exchange of sexual partners by teenage mothers. Early/Adolescent engagement in sexual intercourse not only gives rise to teenage pregnancies but also sexually transmitted infection. It is noted that adolescent age's 15-24 account for nearly half of the 20 million new cases of STIs also called Sexually Transmitted Diseases (STD).

A study conducted in Zimbabwe revealed that the risk factors of teenage pregnancies in rural areas included socio-economic background, peer influence, lack of sex education, traditional roles, low level of education, low self-esteem and non use of contraceptives. Other associations included being sexually active at an early age, early marriage, exposure to media, community poverty level.

Contraception

In relation to contraceptives as a risk factor: the inadequate use of contraceptives among youths has led to unintended pregnancies, unsafe abortions, disability such as fistula, infant mortality and high teenage pregnancies which are public health concern and low knowledge levels and unmet need for contraception are related to

young people's low utilization of reproductive health services and poor sexuality both in and out of school.

Education

Studies have found that a lack of education contributes to teen pregnancy in low and middle income, an association has also been found between low education levels and poverty. While a lack of education is sited as a cause of teenage pregnancy, it has also been found that teenage pregnancy itself has an impact on ones capacity to attain an education as it has been found that there is an increased level of school drop outs amidst pregnant teenagers.

Parental relationships

Parents have a very important influence on whether their teenager become pregnant or not, they are powerful and they can use this in directing their children. A correlation was found between the parenting style in the girl's home and teenage pregnancy.

The findings suggest that adolescent pregnancy will be more common in young women who grow up with authoritarian or permissive parents. In contrast, adolescents with positive, warm, responsive and communicative parents had less cases of teenage pregnancy. Teenagers who fall pregnant blame the lack of sex education, role model and an overarching lack of parental guidance. In addition it has also been noted that when teenagers do attain knowledge on sex, contraception and abortions from relatives or parents, the information tends to be wrong which shows the great need of awareness.

Zambia is one of the countries with a high adolescent fertility with an age specific fertility rate of 141 births per 1000 women compared to the rest of the sub-Saharan African region average of 103 births per 1000 women aged 15-19 years. Use of modern contraceptive in Zambia had improved from 33% in 2007 to 48.5% in 2020. However the Total Fertility Rate (TFR) just dropped by over 1 birth per woman in the last two decades from 6.5 births. Therefore, the findings of this study will provide the Zambian ministry of health with more insight on teenage pregnancy risk factors and help them come up with further policies on how best to eliminate this anomaly. Some of the policy changes that can be put in place include setting up counselling programmes for teenagers, strengthening secondary preventive efforts-education, employment and support_ aimed at helping the mother and child, base programmes on theory- driven approaches with clear behavioural goals and outcomes, using participatory methods. Improving contraceptive use and educating society on its relevance. It will also provide information to the ministry of education on how best they can improve girl child education so as to keep them

more in school and hence reduce the rate of teenage pregnancy. Further recommendations and measures will help to aid in the countries realizations of certain goals that have been put in place such as goals to cut out early child marriages by 2023 (UNFPA,UNICEF 2021) and also avail information in some areas of research that haven't been treaded on.

Objectives

Main objective: To determine the prevalence and factors associated with the increase in teenage pregnancies in Chikupili-Luano district.

Specific objectives: To examine the factors associated with teenage pregnancy in chikupili village

To find out the prevalence of teenage pregnancy in chikupili

To provide recommendations and policies that can be put in place to curb teenage pregnancies n Chikupili Village.

Research questions

- What are the correlates of teenage pregnancy in chikupili?
- What is the prevalence of teenage pregnancy in chikupili?s
- What recommendations and policies can be put in place to curb teenage pregnancies in chikupili?

Conceptual framework and measurement of variables

The variables identified in this study are socio demographic and socio-economic. The scale used is nominal. socio-demographic variables included; use of contraceptives, parent to child relation, religion. The socio-economic variables include; region, type of residence, level of education. The intervening variables include: government policies, parent child relations and sex education. Teenage pregnancy is the dependent variable that is influenced by other factors which are considered as independent factors. The inadequate use of contraceptives among youths has led to unintended pregnancies, unsafe abortions, disability such as fistula, infant mortality and high teenage pregnancies which are public health concern. and low knowledge levels and unmet need for contraception are related to young peoples low utilization of reproductive health services and poor sexuality both in and out of school (Table 1 and Figure 1). Education also has a large bearing as most teenagers that tend to fall pregnant are of low education background. Furthermore the risk of teenage pregnancy is greater among teenagers whose parents have no formal education.

Dependent variable	Intervening variable	Independent variable
Teenage pregnancy	sex-education	Use of contraception
	Parent-child relationship	Views on teenage pregnancy
		Residential area
		Level of education

Table 1. Variables.
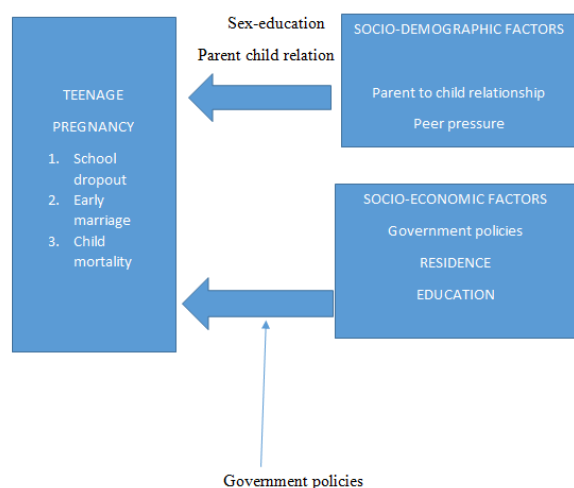
Figure 1. Conceptual framework for factors associated with teenage pregnancy.

Definition of terms

A teenager is a person transitioning from childhood to adulthood in that they are biologically mature but not emotionally. In this study, a teenager is a female person aged between 15-19 years.

Pregnancy is the state in which a fetus develops in the uterus of a woman of childbearing age, from conception to birth.in this study, teenage pregnancy is referred to as pregnancy of a woman aged 15-19 years.

Socio-demographic factors were defined as age, marital status and use of contraceptives in this study.

Socioeconomic factors were defined as region, residence, education, wealth index, ethnicity and religion.

Methodology

Study site and population

Proposed study was done in chikupili village of Luano district due to the rapid increase in teenage pregnancies in the area. Study population were the teenage girls of the area as they are the ones falling pregnant in this case.

Study design

For our study, a cross-sectional analytical study design was used. Data was collected from a group of people at only one point and an association was made between certain factors and teenage pregnancy. Participants were administered with individual questionnaires that were answered after consent was given (Table 2).

Sample size and sampling

Sample size determination

Formula that was used for sample size determination was

$$n= \frac{Z^2 * P * (100-P)}{d^2}$$

Level of confidence (Z)	1.96 (at 95% confidence level)
Margin of error (e²)	5%
Baseline of indicator (P)	50%

Table 2. The sample size found in this case was 384.

Sampling

Clusters were made and participants in the study were picked using simple random sampling in order to avoid biasness.

Eligibility criteria

- Female aged 15 and above were eligible to participate. This was because the area of focus was on the female gender, despite the fact that adolescence ranges from 11-19, the older women who might have experienced teenage pregnancy were able to give their deep knowledge about this, secondly these women also could have been mothers to the pregnant girls hence they could have given a review on the parent to child relations.

- All males above 16.

Exclusion criteria

- Any females below 16.
- Any males below 16.

Plan for data collection: Collection of primary data was through questionnaire and personal interviews for individuals who were unable to complete the questionnaires. The questionnaires used were semi-structured in that it had both open ended and close ended questions. Also, secondary data was used and it was from health centre and school in order to access the number of teenagers that had fallen pregnant from 2010-2018. The questionnaire was a guide to measure the factors leading to teenage pregnancies.

Plan for data processing and analysis: In compiling and analyzing data collected, SPSS version 26 was used together with descriptive and differential statistics.

Data management

Data was entered weekly upon collection. It was comprised mostly of hard copy data.

Data storage

Data was stored safely with a good security system only accessed by researcher.

Ethical consideration

Before the study was carried out, permission from Tropical Disease Research Centre (TDRC), was sought. There after, permission from central province health office and Chikupili health center director in charge was obtained. Before any enrollment, the study was explained clearly to the participants and they were informed about the benefits and the disadvantages of their participation in the study. The nature of the study was made known to them in that it was voluntary and withdrawal was allowed at will. In addition, they were assured of the confidentiality with which their information was handled, hence, information gathered in this study was made available to relevant authorities with no link to participant's identity. Once all this had been understood, informed concert was obtained.

Work plan

This project was meant to be carried out in 2021-2022. Data was collected by use of questionnaires and interviews, between 8 hours and 17 hours on each day of the data collection period (Table 3).

Budget

Item	Quantity	Unit price (k)	Total price (k)
Ethical clearance fee	1	400	500
Printing and binding of project proposal		150	150
Transport		450	450
Rim of paper	2	50	100
Pens	10	3	30
Meal allowance		500	500
Photocopying		300	300
		Total	2030

Table 3. Itams and quantity, unit price, total price.

Results

Sample characteristics

For this study, a total of three hundred and eighty-four (384) participants from Chikupili village of Luano district were recruited upon obtaining informed consent from them and having met the criteria for selection. Out of the calculated sample size 384 a total of 384 individuals were interviewed making the response rate to be 100%. The socio-demographic characteristics of participants of the respondent were obtained and further questions were asked in order to assess the prevalence of teenage pregnancies and associated risk factors.

Demographics

The demographic characteristics of the respondents focused on the sex, age, grade of the participant, marital status and whether they had a boyfriend or girlfriend. The results are summarized in Table 4 below.

Out of the 384 participants, the majority were female (n=278,72.4) while only 106 (27.6%) males took part in the study. The findings in Table 2 revealed that most of the respondents were residents of Chikupili. Their ages ranged, with the highest frequency being among the those 20 and below (210,54.7%), 35.4% were aged between 21-30 years, 8.6% were between 31-40 years and only 1.3% were above 40 years (Figures 2 and 3).

Variable	Indicator	Frequency	Percent	Cumulative percent
Sex	Female	278	72.4	72.4
	Male	106	27.6	100
	Total	384	100	
Residential address. Chikupili	Yes	359	93.5	93.5
	No	25	6.5	100
	Total	384	100	
Age category	20 years and below	210	54.7	54.7
	21-30 years	136	35.4	90.1
	31-40 years	33	8.6	98.7

	41 years and above	5	1	100
Does participant have any children?	Yes	238	62	62
	No	146	38	100
	Total	384	100	
Marital status during first pregnancy	Single	139	53.1	53.1
	Married	123	46.9	100
	Total	262	100	
	Missing	122		
Age when first pregnant	19 years and below	187	48.8	48.8
	20 years and above	65	17	65.8
	Never been pregnant	131	34.2	100
Level of education when first pregnant	Primary	115	30	30
	Junior secondary	66	17.2	47.3
	Senior secondary	38	9.9	57.2
	None	164	42.8	100

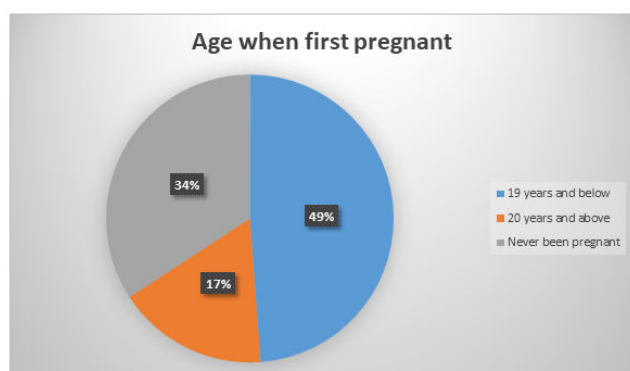**Table 4.** Demographic characteristics.

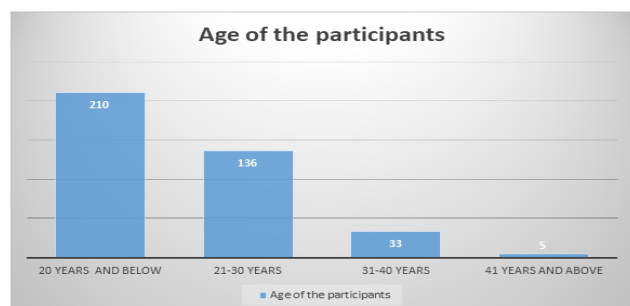**Figure 2.** Age when first pregnant.

Figure 3. Age of participants.

Knowledge

In order to assess the knowledge of the pupils, different questions were asked and their frequency distribution is summarized in the tables below. When asked if they had sexual knowledge on sexual education before pregnancy. 248 (72.1%) of the participants agreed while 96 (27.9%) said no. 138(35.9%) had no knowledge on the forms of contraception neither did they use any, but the rest had and the distribution was 105 (27.3%) condoms, 78 (20.3%) pills, 52 (13.5%) injections, and 11 (2.9%) had heard and used other forms of contraception. In addition, most of the participants (235,64.4%) affirmed that these forms were very accessible, 102 (28.2%) said they were fairly accessible, and 27 (7.4%) found them to be scarce. Health worker had a very good attitude towards issuing the contraceptives according to 316 (84.5%) of the participants while 58 (15.5%) reported that health workers had a very bad attitude (Table 5).

Variable	Indicator	Frequency	Percent	Cumulative Percent
Knowledge on education before sexual pregnancy	Yes	248	72.1	72.1
	No	96	27.9	100
	Total	344	100	

|				
What forms of contraception do you know and which have you used before?	None	138	35.9	35.9
	Condoms	105	27.3	63.3
	Pills	78	20.3	83.6
	Injection	52	13.5	97.1
	Other	11	2.9	100
	Total	384	100	
How accessible are these contraception in your area and where can they be found?	Very accessible	235	64.4	64.4
	Scarce	27	7.4	71.8
	Fairly accessible	103	28.2	100
	Total	365	100	
How is the attitude of the health workers towards issuing the contraceptives to clients?	Very good	316	84.5	84.5
	Very bad	58	15.5	100
	Total	374	100	
	System	10		

Table 5. Frequency distribution of knowledge questions.

In order to assess knowledge about contraception, 2 questions were answered with total score of 2. For which each question was scored one point for a correct response and zero for incorrect response. An overall knowledge score was calculated by adding up the scores for each respondent across all questions (Table 6). There were (n=265, 69.0%) of respondents with good knowledge regarding contraception, while (n=119, 31.0%) had bad (poor) knowledge about contraceptive use as seen in the Figure 4 below.

Variable	Indicator	Frequency	Percent	Cumulative percent
Contraception knowledge score	1	265	69	69
	2	119	31	100

Table 6. Knowledge score.
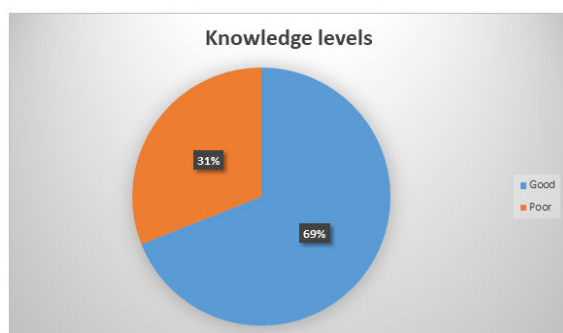
Figure 4. Knowledge on contraception.

Relationship with parents

The relationship between parents and the participants was assessed by asking the questions shown in the Table 7 below. A huge number of the participants 293 (78.3%) confirmed that there was frequent monitoring by parents before the pregnancy, while 81 (21.7%) reported no such activity. To elucidate more, 268 (69.8%) of the respondents had sexual education at home and 116 (30.2%) did not have sexual education. Furthermore, the education level of the respondent's parents varied as follow; 104 (30.2%) had no education, 162 (47.1%) had been to primary school, and 68 (19.8%) had reached secondary school.

Variable	Indicator	Frequency	Percent	Cumulative percent
Was there frequent monitoring by parents before pregnancy?	Yes	293	78.3	78.3
	No	81	21.7	100
	Total	374	100	
	System	10		
	Total	384		

|				
Was there sexual education at home	Yes	268	69.8	69.8
	No	116	30.2	100
	Total	384	100	
What is the level of education of the parents?	None	104	30.2	30.2
	Primary	162	47.1	77.3
	Secondary	68	19.8	97.1
	Tertiary	10	2.9	100
	Total	344	100	
	System	40		
	Total	384		

Table 7. Relationship with parents.

Assessment of the relationship between the participants and their parent by scoring the the questions asked above, 3 questions were answered with total score of 3. Each of which was scored one point for the desired response, and zero for an incorrect response. An overall score was calculated by adding up the scores for each respondent across all questions (Table 8). There were (n=268,70.7%) of respondents with a good relationship with their parents, while (n=111, 28.9%%) had bad or poor relationship with their parents as seen in the Figure 5 below.

Variable	Indicator	Frequency	Percent	Cumulative percent
Relationship score	0	5	1.3	1.3
	1	268	70.7	72
	2	106	28	100
	Total	379	100	

Table 8. Relationship score.
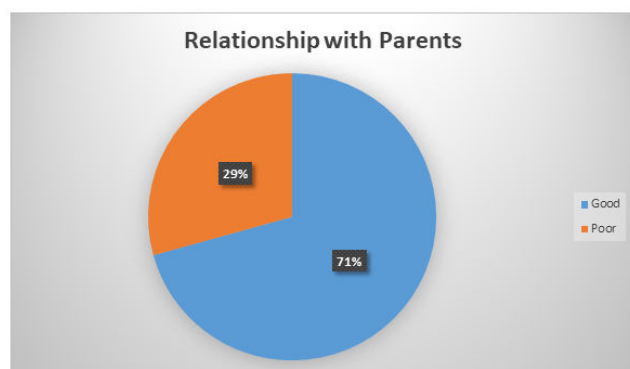
Figure 5. Relationship with parents.

Activities of area

The participants were asked about social activities for youths influencing them both in positive and negative ways. When asked about the available activities that kept the youths busy, 273 (75%) said soccer, 66 (18.1%) swimming, 10 (2.7%) peer education, and 15 (4.1%) said other activities. Despite these activities, there were other places that were regarded as being of bad influence to teenagers which 339 (88.9%) admitted were present. Among these, the place that stood out was bars/clubs with 335 (96%) of the responses, followed by shrines with 14 (4%) of the responses and 35 participants being unable to identify such places. In addition, 324 (87.8%) participants reported that teenagers frequently visit such places, 45 (12.2%) said sometimes and 15 did not respond (Table 9).

Variable	Indicator	Frequency	Percent	Cumulative percent
What activities are available in the area to keep the youths busy?	Soccer	273	75	75
	Swimming	66	18.1	93.1
	peer education	10	2.7	95.9
	others	15	4.1	100
	Total	364	100	

Are there any places that might be of bad influence to the teenagers?	Yes	339	88.3	88.3
	No	45	11.7	100
	Total	384	100	
If yes to 15, name any such places	Bars, clubs	335	96	96
	Shrines	14	4	100
	Total	349	100	
	System	35		
How often do teenagers frequent places like bars, clubs?	Very often	324	87.8	87.8
	Sometimes	45	12.2	100
	Total	369	100	
	System	15		
	Total	384		

Table 9. Activities in area.

The participants were asked how strict the regulations against teenagers in these clubs were, overwhelmingly, 271 (70.6%) participants said they were not strict at all, 85 (21.9%) said they were slightly strict and 29 (7.6%) said very strict. Most of the participants (350, 93.6%) thought teenage marriages were also factor leading to teenage pregnancies and 24 (6.4%) did not (Table 10).

Variable	Indicator	Frequency	Percent	Cumulative percent
How strict are the regulations against teenagers in these clubs?	Very strict	29	7.6	7.6
	Slightly strict	84	21.9	29.4
	Not strict at all	271	70.6	100
In your view, do you think teenage marriages in the area are also a factor leading to teenage pregnancies?	Yes	350	93.6	93.6
	No	24	6.4	100
	Total	374	100	
	System	10		
	Total	384		
Are there any initiation ceremonies in the area?	Yes	133	36	36
	No	236	64	100
	Total	369	100	
	System	15		
	Total	384		

Table 10. Cultural activities.

Correlations

The Table 11 below shows the correlation between prevalence of teenage pregnancies and other factors. There's a correlation between age when first pregnant and marital status during first pregnancy (p-value=0.036) meaning most participants were 19 years and below during first pregnancy. However, there is no correlation between age when first pregnant and level of education (p-value=0.128), relationship with parents (p-value=0.606), contraception knowledge (p-value=0.103).

Variable	Indicator	Age when first pregnant			Total	P-Value
		19 years and below	20 years and above	Never been pregnant		

Marital status during first pregnancy	Single	109	15	15	139	0.036
	Married	78	45	0	123	
Sex of participant	Female	169	50	58	277	0
	Male	18	15	73	106	
Age of participant	20 years and below	88	5	116	209	0
	21-30 years	86	35	15	136	
	31-40 years	13	20	0	33	
	41 years and above	0	5	0	5	
level of education	Primary	85	30	0	115	0.128
	Junior secondary	56	10	0	66	
	Senior secondary	18	20	0	38	
	None	28	5	131	164	
Relationship with parents	Good	126	55	92	273	0.606
	Poor	58	10	39	107	
Contraception knowledge of participant	Good	131	55	79	265	0.103
	Bad	56	10	52	118	

Table 11. Correlation between age when first pregnant and other variables.

The Table 12 below shows both a crosstabuation and correlation between Knoweledge levels and demographic characteristics. There is correlation between knowledge and age of participant (p-value=0.000), age when first pregnant (p-value=0.000), and level of education (p-value=0.000). However, there's no correlation between knowledge and sex of the participant (p-value=0.97).

Variable	Indicator	Contraception knowledge of participant		Total	P-Value
		Good	Bad		
Age of participant	20 years and below	116	94	210	0
	21-30 years	116	20	136	
	31-40 years	28	5	33	
	41 years and above	5	0	5	
level of education	Primary	72	43	115	0
	Junior secondary	52	13	65	
	Senior secondary	34	5	39	
Relationship with parents	Good	195	73	268	0
	Poor	60	46	106	
Does participant have any children?	Yes	187	51	238	0
	No	78	68	146	
	Total	265	119	384	
Sex of participants	Female	192	86	278	0.97
	Male	73	33	106	

Table 12. Variable Indicator, contraception knowledge of participant.

The Table 13 below shows both crosstabulation and correlation between relationship level with parents and demographic characteristics. There's a correlation between relationship with parents and age of partcipant (p-value=0.000), level of education (p-value=0.02), marital status during the first pregnancy (p-value=0.000). In contrast, there is no correlation between relationship

with parents and sex of the participant (p-value=0.76), age when first pregnant (p-value=0.063).

Variable	Indicator	Relationship with parents		Total	P-Value
		Good	Poor		
Sex of participant	Female	198	80	278	0.76
	Male	75	28	103	
	Total	273	108	381	
Age of participant	20 years and below	139	68	207	0
	21-30 years	96	40	136	
	31-40 years	33	0	33	
	41 years and above	5	0	5	
	Total	273	108	381	
Age when first pregnant	15 years and below	19	10	29	0.063
	16-20 years	132	53	185	
	21-25 years	30	5	35	
	Total	181	68	249	
level of education	Primary	70	45	115	0.02
	Junior secondary	47	18	65	
	Senior secondary	34	5	39	
	Total	151	68	219	
Marital status during first pregnancy	Single	78	58	136	0
	Married	103	20	123	
	Total	181	78	259	

Table 13. Correlation between relationship with parents and other variables.

The Table 14 below shows correlation between knowledge levels and relationship with parents for which the p-value was 0.03.

Variable	Indicator	Relationship with parents		Total	P-Value
		Good	Poor		
Contraception knowledge of participant	Good	200	62	262	0.03
	Bad	73	46	119	
	Total	273	108	381	

Table 14. Correlation between relationship with parents and contraception knowledge.

Discussion

Prevalence of teenage pregnancies

This study aimed to determine the prevalence and factors associated with teenage pregnancy in chikupili village or Luano district in Zambia. The prevalence of teenage pregnancy in this study was found to be 48.8% (95% CL) which is higher than the report of previous studies, 37% [27]. This disparity may be due to the differences in the time range between the two studies.A study on on a total of 24 countries from East, West, Central, North and Southern Africa sub-regions was conducted. The pooled results showed that the prevalence of adolescent pregnancy was 18.8% with East Africa having a prevalence of 21.5% and Northern Africa having the lowest 9.2%. Teenage child bearing increased dramatically from 2% of girls at age 15 to 36% at age 19 and teenagers from poorer households were more likely to have begun child bearing before the age of 20 (29%) compared to those from weSalthier families (21%) [28]. In this study no correlation was found between age when first pregnant and knowledge levels (p-value=0.103) or relationship with parents (p-value=0.606). However there was a corelation between age when first pregnant and marital status when first pregnant (p-value=0.036). Furthermore, most of the participants

who got pregnant in the age range of 19 years and below were single compared to those above 20 years which showed the were married.

Education

Low education levels when first pregnant were noted among the respondents with 42.8% having no education and a further 30% having attended only primary school. low academic achievement and poor sex education are a leading cause of high pregnancy rate in zambia among women aged 15 to 19 [29]. The study further shows that women with a higher education level tend to delay marriage and childbearing. The author concludes that teenage pregnancy was as a result of poor social, economic and health outcomes for mother and child Despite these reports showing an association, no correlation was found in this study between education level and prevalence of teenage pregnancies (p-value=0.128). a simlar study showed that the highest rates of adolescent pregnancy are among those who have no education or only a primary education, especially for those who are under the age of 16 in Kenya, Tanzania, and Uganda [30].

Knowledge on contraception

This study determined that 69% of the partcipants had good knowledge regarding contraception. Only 35.9% reported not to have known or used any form of contraception, the had. Despite knowing and using these contraceptives, the prevalence of teenage pregnancies is still high. The role of contraception use in preventing teenage pregnancies is a matter to be studied further.

Limitations

The present study had some restrictions that need not be overlooked when interpreting the study results. One factor limiting was the inability of some participants to read and write, this caused collection of data to be slower as interpretation had to be done and participants could not fully express themselves. The findings of the study cannot be generalized to the entire central province as the study population only consisted of Chikupili residents.

Conclusion

This study found that adolescent pregnancy remains a common health care problem in Chikupili village. Age, marital status, community-level contraceptive utilization, age at initiation of sex, educational level were found to have a statistically significant association with teenage pregnancy Therefore, designing public health interventions targeting higher risk adolescent girls such as those from the poorest household through enhancing maternal education and empowerment is vital toreduce adolescent pregnancy and its complications. Ensuring teenage age girls partcipation in school and other social activities that would be beneficial to them and and deter them from engaging in activities that would lead to them being pregnant.

Recommendation

Establishing more activities like peer education, school clubs is one sure way of reducing the number of teenage pregnancies as the teens will be more engaged in profitable activities. Banning and also

putting strict rules on early marriage offenders is needed. Free education will go a long way in keeping both the male and female teenagers in school hence reducing chances of the getting pregnant. Measures preventing teens from frequenting the bars can also be put in place lastly parent sensitization on the need to offer sexual education to their children is a measure that can be undertaken.

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How to cite this article: Musonda, Chanda. "Prevalence and Factors Associated with an Increase in the Number of Teenage Pregnancies in Chikupili Village-Luano District." *J Clin Res* 6 (2022) : 165.