



**COLLEGE OF MEDICINE
AND HEALTH SCIENCES**
School Of Public Health

**PREVALENCE AND RISK FACTORS ASSOCIATED TO SEXUAL
ABUSE AMONG TEENAGERS IN NINE AND TWELVE YEAR'S
BASIC EDUCATION
CASE OF GASABO DISTRICT**

*Dissertation submitted in partial fulfillment
of the requirements for the award of Master of
Public Health (MPH)*

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LIST OF ABBREVIATIONS

CMHS	College of Medicine and Health Sciences
HIV	Human Immune deficiency Virus
SPH	School of Public Health
UR	University of Rwanda
TSA	Teenager sexual abuse
WHO	World Health Organization

ABSTRACT

Sexual abuse among children and teenagers, which is a worldwide problem, is increasing in Rwanda. The magnitude varies between 2 to 26%. However, experts believe that the true figure is always unknown because many cases are not reported. Sexual abuse can lead to far reaching consequences. Efforts are made to increase the public awareness and in establishing mechanisms necessary to protect potential victims and punish perpetrators. However, given the complexity of the problem and available challenges, all risk factors are still unexplained.

Methods: this is a cross-sectional study design that involved 400 school teenagers; data analysis comprised descriptive and statistical test for association.

Results: Teenagers of 16 years and above are 2 times higher at risk of being abused [OR: 2.14, CI: 1.39; 3.29, $p < .001^{***}$]. For sex, female are 2 times higher at risk of being abused compared to their fellow male [OR: 2.052, CI: 1.29; 3.25, $p < .002^{***}$]. When it comes to residence, results show that staying in rural area protect victims against sexual abuse compared to those who stays in Urban Zone [OR: .345, CI: .22; .52, $p < .001^{***}$]. The results on the effects of where teenagers stays in relationship to the risk of being abused show that those who stays with relatives are five times higher at risks of being abused compared to the fellows who stays with their parents [OR: 5.312, CI: 2.45; 11.51, $p < .001^{***}$]

Conclusion: The results from this study confirm that sexual abuse among school teenagers exists.

DEDICATION

Affectionately I dedicated this work to you Mr. **MUGARURA Jean Baptiste** my husband, thank you for your overwhelming love, patience, assurance and support during this time.

This work is also to our lovely children for the support you gave to me all along through this journey.

This work is further dedicated to all teenagers' victims of sexual abuse

God Bless you

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CHAPTER ONE: INTRODUCTION

1.1. Definition of the key concepts

1.1.1. Prevalence:

Prevalence was defined as number of ill cases among a certain population at risk at a particular point in time or within a specified time (Olweus, 1989). In this study, prevalence refers to the number of school teenagers; victim of sexual abuse by the time of this study was conducted.

1.1.2. Risk factors:

The World Health Organization (WHO), defined risk factor as “characteristic or exposure” of a person that contribute to the probability of developing a disease or injury (Organization., Diseases., & Cluster., 2003). In this study, risk factors encompass personal characteristics (e.g., age, gender etc.) socioeconomics (eg. Being orphans, staying in the family of very low income etc.), that are likely to expose school teenagers to sexual abuse.

1.1.3. Sexual abuse

Sexual abuse was defined as obliging or tempting a person to be involved in sexual activities, whether or not the person is aware of what is happening. It can include physical contact, (penetrative or non-penetrative act) or include non-contact activities, such as showing or in the production of, sexual online images, watching sexual activities, or encouraging children to behave in sexually inappropriate ways”. The description includes people young than 20 years and emphasizes that abuse may involve contact behavior or not which may be forced or persuaded (Children, 2012; Kirk, Logie, & Mok, 2010).

1.1.4. Teenager

A teenager was defined as, a young person who is age fall between 12 to 19 years. In this study, a teenager refers, to student whose is age fall at the aforementioned age range.

1.2 Background to the Study

Sexual abuse is a global problem that affects a number changing from 2% to 62 % of female and 3% for male (Alsehaimi, 2016). The consequences of the sexual abuse differ depending on the victims' age. At preschool age, victims have tendency to exhibit a withdraw behavior. And at school age level, victims are more likely to be involved in more aggressive behavior or in inadequate sexual conduct. In advanced age up to adolescence, victim show mood

disorders that varying between a depressive mood and several other psychiatric and socio problems(Alsehaimi, 2016)(Molnar, Buka, & Kessler, 2001). The effect of the abuse is dependent on a number of factors, and literature mentioned age of the victim, the age at which the abuse happened, the time elapsed after the instance of abuse, and the relationship of the abusers and the perpetrators(Alsehaimi, 2016). The most mentioned far reaching consequences include frigidity (Lalor & McElvaney, 2010a). Researchers are facing a challenging question of defining the sexual abuse, and lack of unambiguous definition hamper the research progress and efforts for advocacy. Some definition mention that an abuse to be true the perpetrators have to be at least 5years old that the victim. in other definitions age do not matter(Haile, Kebeta, & Kassie, 2013). Other definition insists on the intellectual maturity, ability to provide an informed consent(Arriola, Loudon, Doldren, & Fortenberry, 2005). The definition is extended to the categorization of the abuse. Sexual abuse has two main categories, classical sexual intercourse and other form of abuse such as inappropriate touching(He, Johnston, Zeitlinger, City, & City, 2015). Many of sexual abuse case are not reported due to several reasons including shame embarrassment or guilty(Lalor & McElvaney, 2010a).

In Recent, years have seen increasing concern about the commercial sexual exploitation of teenagers (CSEC) in the Developing World and Africa sub-Saharan Africa is part of the problem. For example, a research done in Ethiopian showed cases of abuse that involve both sex (Male and female). In Africa, proportions differ across the countries but can be up to 40% (Manyike, Chinawa, Elias, Odetunde, & Awoere, 2015). For the situation in Rwanda, there is no documented report officially published. However, sexual abuse is currently, the issues that received a widespread public attention. In addition, high profile advocacy team has made successful influence on legislation and government policy(MBABAZI, 2015).

1.3. Problem statement

Sexual abuse among children and teenagers is a growing concern worldwide including Rwanda. The problem is associated with different effects changing from physical to psychological effects. Among psychological consequences, literature reviews report low self-esteem, anxiety, depression, anger, and aggressiveness. Cases of post-traumatic stress, dissociation, sexual difficulties, somatic pre-occupation and disorder, self-injurious or self-destructive behavior, poor school performance, prostitution, delinquency, transmission of abusive behavior to subsequent generations and most of the various symptoms and behaviors seen in those diagnosed with borderline personality disorder were documented among

sexually abused children and teenagers (Maniglio, 2013). It was documented as well that sexually abused girls double the risk for adolescent pregnancy (Noll, Shenk, & Putnam, 2009). Moreover, later in life adult women with a history of childhood sexual abuse show greater evidence of sexual disturbance or dysfunction. Anxiety, fear, and suicidal ideas and behavior have also been associated with a history of childhood sexual abuse (Beitchman et al., 1992). The far-reaching consequences of child sexual abuse extend its impact not only to the life of the child but its impacts as well as their family's future relationships and in the society (Finkelhor, Ormrod, & Turner, 2007; Lalor & McElvaney, 2010b).

Research documents in the literature review shows the potential risk factors associated to sexual abuse done to children (Mekuria, Nigussie, & Abera, 2015). However, reported cases might be as few as a tree in a forest. Several reasons might justify the reason why sexual abuse is under reported, among them mentioned in the literature review were lack of consistent definition of sexual abuse, fear of the consequences like stigma against the survivors, and cultural norms among others. Due to social pressure, victims or family members feel ashamed to report the cases (Haile et al., 2013). To discourage sexual abuse, the government of Rwanda is investing in policy and raising awareness. However, discouraging under reported behavior is a true challenge that hinders efforts to eradicate sexual abuse among children and teenagers.

1.4 Research objectives

This study was conducted with the aim of assessing the prevalence and risk factors associated to sexual abuse done to school teenagers in nine and twelve years basic education program in Gasabo District.

1.4.1. The specific objectives in this study are :

- To portray the sexual behavior among teenagers in nine and twelve years education
- To identify potential contextual factors associated with sexual abuse among teenagers in nine and twelve years education

1.5. Study justification

Currently Rwanda experiences a growing number of sexual abuse and harassment. However, its actual incidence is difficult to determine, as many cases have never been reported. Teenage sexual abuse has far-reaching consequences in victims mostly girls. The abuse rise

more concerns because it has gone up to human trafficking(Williams, Binagwaho, & Betancourt, 2012) in a context of sexually transmitted diseases and HIV/AIDS.

Literature review on sexual abuse among school teenagers in Rwanda is scanty. However, in daily news paper “the New times” the Minister of State for Primary and Secondary Education, recognized different forms of abuse in schools, especially sexual exploitation was widespread in schools(RWEMBEHO, 2011). Sexually abused children often known the person responsible for; hence, the problem of teenage sexual abuse can be addressed through less ambiguous way if teenage protection is guarantee. Abusing a teenager sexually (or women) is an offence in Rwanda(Bizumuremyi, 2012), however, in the recent studies found the sexual abuse as being a kind of “transactional sex” done to children with economic deprivation(Williams et al., 2012). The abuse can be from anywhere: in their families , the neighbors and at school and it became more difficult to report when it involves important figure member of the family or school teachers (Bizumuremyi, 2012).

Nowadays, Rwanda adopted important laws and policies to sexual abuse done to teenagers and women in general; however, sexual violence persists(Abbott & Sapsford, 2012). While several factors contributing to school-based sexual violence exist, vacuum in structures and processes capable of ensure accountability is one of the most crucial causes. Perpetrators often do not face consequences at the level of their crime due to underreporting.

To the best of researcher’s knowledge, few studies on sexual violence was focusing on sexual abuse done to women and children in general(Williams et al., 2012), studies focusing on school teenagers are very few if not missing and quantitative methods necessary to illustrate potential risk factors are missing . To fill in the gap, the current study is intended to involve quantitative methodological approaches to avail an estimation of the Sexual abuse prevalence, sexual abuse patterns and identify potential risk factors in Gasabo District.

CHAPTER TWO: LITERATURE REVIEW

2.1. The nature and scope of teenage sexual abuse

Literature presents a variety of definition to describe teenage sexual abuse. In population based study sexual abuse covers all mechanisms that expose a child to unwanted sexual contact, or forcing, tempting a child or a young person to be involved in sexual activities, whether the person involved is aware of what is going on or not . The sexual activities can be physical contact such as rape or any other form(Kirk et al., 2010; Mekuria et al., 2015). All sexual abuse, regardless of the type, there is a growing literature that confirm a global increases (Korn, 2004). some literature mentioned risk factors, and people believe that children from low socio economic back ground are more likely to be victims of sexual abuse. However, other literature documents the researcher reviewed showed that without preventive and control measures, sexual abuse is likely to happen at all age, intellectuals, race and reliogions(Goldman, J., Salus, M. K., Wolcott, D., Kennedy, 2003). And it is widespreade phenomenon in both developed and developing countries(Manuscript & Abuse, 2012; Mccrann, Lalor, & Katararo, 2006). The TSA phenomenon was documented as well in African countries such as Egypt, Ethiopina , Tanzania, Kenya and several other countries (Aboul-Hagag & Hamed, 2012; Mccrann et al., 2006; Ruto, 2009)

Literature from Sub-Saharan Africa suggests that at least three factors motivate the reasons why child abuse is becoming frequent. There is a misconception about HIV and some society in sub-Saharan Africa think that intercourse with a virgin girl is likely to cure HIV or make people rich(Mason & Kennedy, 2014; Rohleder, Swartz, Kalichman, & Simbayi, 2009). And there is a strong beliefs that traditional healer play a role in encouraging sexual abuse for young people(Mccrann et al., 2006).

Another dimension is economic, it was reported in the literature review that people from low economic background are easily forced to engage in transactional. the phenomenon can happen both side (male and female) and this is attested by the new vocabulary currently used in media ““sugar daddy/mammy” in Rwanda and Tanzania as well which refers to any support benefited from old woman or man with sex as transaction mean (Mccrann et al., 2006; Silberschmidt, 2001; Simmons, 2009)

2.2. Teenage sexual abuse consequences

The World Health Organization recognize CSA as a public health concern(Office & Africa, 2004) , with far reaching consequences. Different studies reported that consequence of sexual abuse for young people range from psychological to physical effects (Manuscript & Abuse, 2012).

Psychological consequences reported range from mood disorders (dissociation pattern, sexual problem, depression, eating problem and others)(Hall & Hall, 2011). For many times young sexual abuse survivors feel guilty and ashamed and because of fear personal responsibility for what happened to them. literature documents showed that when the abuse is done by an important person the abused person feels mostly guilty and keep think that it her faults and such scenario the perpetrators will not be denounced and therefore Survivors frequently blame themselves and internalize negative image of themselves which end up in depression(Hall & Hall, 2011; Molnar et al., 2001) .

Additional to that survivors experience sexual problems as consequence of psychological consequences. Sexual difficulties reported can be sexual fear and avoidance, fearing, lack of sexual interest or engaging in sexual intercourse as always an obligation or with a negative sensation such as anger, disgust emotion distance etc...(Hall & Hall, 2011)

As to physical consequences, the immediate observable counts physical trauma mostly when the abuse is done by strangers for the long lasting the consequences where categorized into gastrointestinal issues, gynecology/ obstetrics issues, cardiovascular and others. It was observed as well that young sexual abuse victims use more health services compared to those who do not have history of sexual abuse(Irish, Kobayashi, & Delahanty, 2010).

From above literature, preventive measures need to be implemented because, abuse done to teenagers hinder the future of the community

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Study area

This study was conducted in Gasabo District, which focuses on 22 nine and twelve year's program which have third years dispatched in 12 Sectors whose 7 sectors are largely rural and are Bumbogo, Gikomero, Rutunga, Nduba, Jabana, Rusoro and Ndera sector. The urban part consists of five sectors: Kimihurura, Kimironko, Gisozi, Kinyinya and Gatsata sectors. Therefore, the researcher is expecting to identify the predominant risk factors in both urban and rural areas.

3.2 Study design

A school-based, cross-sectional study has been conducted among school adolescent from nine and twelve years program in 3rd year classes.

3.3 Study participants

The study involved male and female students of 3rd year classes from nine and twelve year's schools at Gasabo District.

3.4 Inclusion criteria:

Regular student who signed an assent form (approved by parents guardians) the approval was verbal and reported by the participants

3.5 Exclusion criteria

Students from parents who did not provide a written consent were excluded from the study as well as students who did not sign the assent form.

3.6 . Sample size (Calculation)

As mentioned earlier this study-involved students from nine/twelve years schools attached to Gasabo district. Schools to be selected are 22 and according to their registry, all of them make 2163 students. To estimate the sample size a formula by Taro Yamane (1967) applies as follow:

$$n = \frac{N}{1 + Ne^2}$$

Where: n = sample size N = number of total population e = value of accepted error
Therefore, Sample size estimated corresponded to 400 students.

$$n = \frac{2163}{1 + 2163(0.05)^2} = 399.8$$

Table 1: Summary of sampling process per selected schools according to the school reports 2016.

Sectors	Number of students per sector	Contribution schools to the total number of students in the district (%)	Sample size
Gikomero	108	5	20
Rusororo	236	11	44
Kimironko	221	10	40
Bumbogo	37	2	8
Kinyinya	315	14	56
Gisozi	120	6	24
Gatsata	205	10	40
Jabana	191	9	36
Kimihurura	244	11	44
Ndera	214	10	40
Rutungu	175	8	32
Nduba	97	4	16
Total	2136	100	400

Therefore, basing on proportion of nine years students per sector, the sample size from each sector followed the proportion distribution as mentioned in table 1. Hence for the 400 nine/twelve years students Gikomero contributed with 20, Rusororo 44, Kimironko 40,

Bumbogo 16, Kinyinya 60, Gisozi 24, Gatsata 40, Jabana 36, Kimihurura 44, Ndera 36, Rutunga 20, Nduba 20

3.7 Sampling Procedure

After securing the permission to collect data from Gasabo district, we approached nine/twelve years school Directors. With their approval, researcher contacted parents' representative committee during their regular meeting and explained about the study purpose and data collection process. With their approval, researcher contacted students in classes and identified potential participants. For a list of students who are willing to participate, researcher selected one participant out of two. The process continued up to the completion of the needed sample.

From potential participants, researcher had approached them to explain what the researcher researching on and what other researcher are expecting from him or her. Students were asked to take part in consent of their parents/guardian for signature. The assent form was provided to students with an anonymous questionnaire to fill in by students at lunchtime.

3.8 Data Collection Tool development

This study used a standardized questionnaire on teenage sexual abuse as by Helpins and colleague (Halpérin et al., 1996). The questionnaire was made for boys and girls of young age. To make it suitable to the purpose of the study, it was adapted.

3.9. Study Variables

The first section of the data collection tool collected socio-demographic data: age, sex, religion, residence, living arrangements of the students, parental status, and sexual activity history, Knowledge on sexual abuse and sexual abuse experience.

3.10 Data Management and Analysis

Data collected were coded and processed with SPSS version 18, for analysis data summary on socio-demographics characteristics are presented with frequency tables. To answer the main research question a univariate analysis with chi-square test was computed. To identify independent predictors a multiple logistic regression model was considered.

3.11. Ethical Consideration

The ethical review board approved the study protocol and Gasabo district provided the permission for data collection. Furthermore, parents /guardian participants of teenagers

willing to participate signed an informed consent, the participation was free, and participants were allowed to withdraw without prejudice. For anonymity of the participants, data collection tool was anonymous, code were used instead of names so that none can trace back the participant identity. The filled in data collection tool were kept in the locked cupboard.

CHAPTER FOUR: RESULTS

This chapter presents the data from the field of the study and the analysis which was performed according to the specific objectives.

4.1 Socio-demographic characteristics of the participants

Results on socio demographic characteristics of the participants are summarized in Table 2. According to the table, majority of the participants were Christians (91.8%), female (72%), and mainly of 16 years old or more (68.5%). Among them 65.3% stay in urban areas with their parents (69.5%). while many of the participants have parents (79.3%), nearly half of the parents completed primary school (51.5 % for male and 56.5 for female). Many participants are from ubudehe” Wealth categories” category2 and 3 respectively)

Table 2 Socio-demographic characteristics of the participants

Age category (in Years)	N	%
12-15 years	126	31.5
16 and +	274	68.5
Sex		
Female	288	72
Male	112	28
Religion		
Christian	367	91.8
Muslim	25	6.3
Others	8	2
Residence		
City	261	65.3
Rural	139	34.8
Live with		
Both parents	278	69.5
Friends	60	15

Relatives	62	15.5
Alone	62	15.5
Have parents		
Yes	317	79.3
No	83	20.8
Father Education		
No formal education	37	11.2
Primary education	170	51.5
Secondary and above	123	37.3
Mother education		
No formal education	63	16.4
Primary education	217	56.5
Secondary and above	104	27.1
Father occupation		
Employed	120	30
Occasional job	211	52.8
Not employed	16	4
Mother occupation		
Employed	57	14.3
Occasional job	313	78.3
Not employed	15	3.8
Wealth category		
Category 1	62	15.5
Category 2	178	44.5
Category 3	154	38.5
Category 4	6	1.5

4.2. History and type of sexual abuse

Results on the history of sexual abuse and type of abuse are depicted in table 3. According to the table 43.5% of the participants experienced sexually abuse and among them 48.3 are female while male are 31.2%. With regard to type of abuse reported by participants 80% of the female reported forced sexual intercourse, while male who reported the same issues were

only 20%. Additionally majority of female experienced forced kiss/hug (78.8%) and in 66.7% female reported to be victim of being kissed various part of the body against their will. They were forced to sit on his lap, rubbed against their will (60.9%). in 71.4% of the case, female were forced to expose the genitals of their perpetrators. On the side of male, 75% of them said that they were touched on their genitals against their will or expose their genitals against their will 60%.

Table 3 History and type of sexual abuse

Ever abused	N	%
Yes	174	43.5%
No	226	56.5%
Types of sexual abuse	Sex	
	Female N (%)	Male N (%)
Abused	139(48.3)	35(31.2)
Tried to kiss or hug you in a disturbing way , against your will	26(78.8)	7(21.1)
Kissed various parts of your body (not just your face) against your will	8(66.7)	4(33.3)
Forced you to sit on his her lap , and rubbed against you to reach sexual satisfaction	14(60.9)	9(39.1)
Tried to force you to expose your genitals	2(40)	3(60)
Exposed his or her genitals	11(44)	56(52)
Forced you to touch his her genitals	15(71.4)	6(28.6)
Touched your genitals against your will	1(25)	3(75)
Take nude photos	14(48.3)	15(51.7)
Put his fingers or object in your genitals	1(33.3)	2(66.7)
Had intercourse with you against your will	16(80)	4(20)

4.3. Perpetrator and condition during abuse of adolescent

Results in table IV show that 50.6% of abused participants were age range of 13 to 16 by the time of abuse while 16.3% of the abused were aged between 17 to 19 Yrs. In 33.1% of the case, abused participants were between 9 to 12 years. With regard to the age of abusers, in most of the case they more aged compared to their victims. For relationship between abusers and their victims in 44% of the scenario, their close relatives abused them. Stepparents counted among their abusers as well (25.3%). Results on where the abuse occurred, shows that in 47 % of the scenario, the victim was living with friends, with relatives (38.6%) and parents (14.5%). Results on where the abused happened, show that in 50.3% of the circumstances abuse happened in the house of in the perpetrators home. In 30.9% of the situation the abuse happened in the home were the victim stays.

Table 4 Perpetrator and condition during abuse of adolescent

Age of the student at by the time of abuse	N	%
9-12	55	33.1
13-16	84	50.6
17-19	27	16.3
Estimated age of the abusers		
Of my age	48	29.3
5 years older than me	70	42.7
10 years older than me	28	17.1
Much older than me	18	4.5
Relationship with abusers		
A close relative	73	44
Stranger /acquaintance	51	30.7
Stepparents	42	25.3
Living with , when the abuse occurred		
With my parents	24	14.5
With my relatives	64	38.6
With my friends	78	47
Place where abuse took place		
At home where the victim stays	51	30.9

In the perpetrators home	83	50.3
At school	23	13.9
Others (lodge /hotel)	8	4.8

4.4. Factors associated with sexual abuse among school teenagers

Results on risk factors associated to sexual abuse among school adolescent are portrayed in Table V. According to the table age (χ^2 :12.356; $p < .001$) and sex (χ^2 : 9.498, $p \leq .004$) are respectively associated with sexual abuse. The same applies for the residence (χ^2 :24.848, $p \leq .001$) and people the victims were staying with (χ^2 : 23.999, $p \leq .001$)

Table 5 Factors associated with sexual abuse among school teenagers

		Abuse		X ²	P-Value
		No	Yes		
Age				12.356	.000
	12-15 Yrs	55(43.7)	71(56.3)		
	16+	171(62.4)	103(37.6)		
Sex				9.498	.002
	Female	149(51.7)	139(48.3)		
	Male	77(68.8)	35(31.2)		
Father education				1.775	.412
	Informal	19(51.4)	18(48.6)		
	Primary education	101(59.4)	69(40.6)		
	Secondary and plus	78(63.4)	45(36.6)		
Mother education				.399	.819
	Informal	34(54)	29(46)		
	Primary education	121(55.8)	96(44.2)		
	Secondary and plus	61(58.7)	43(41.3)		
Mother occupation				2.419	.298
	Employed	37(64.9)	20(35.1)		
	Occasional job	173(66.3)	140(44.7)		
	Not employed	7(46.7)	8(53.3)		
Father occupation				.738	.692

	Employed	69(57.5)	51(42.5)		
	Occasional job	124(58.8)	87(41.2)		
	Not employed	11(68.8)	5(31.2)		
Residence				24.848	.000
	City	171(65.5)	90(34.5)		
	Rural	55(39.6)	84(60.4)		
Living with				23.999	.000
	Both parents	167(60.1)	111(39.9)		
	Friends	17(28.3)	43(71.7)		
	Relatives	42(67.7)	20(32.3)		

To identify independent risk factors associated to school teenagers abuse a multivariate analysis with a logistic regression model was computed and results are summarized in the table VI. According to results: teenagers of 16 years and above are 2 times higher at risk of being abused [OR: 2.14, CI: 1.39; 3.29, $p < .001^{***}$]. For sex, female are 2 times higher at risk of being abused compared to their fellow male [OR: 2.052, CI: 1.29; 3.25, $p < .002^{***}$]. When it comes to residence, results show that staying in rural area protect victims against sexual abuse compared to those who stays in Urban Zone [OR: .345, CI: .22; .52, $p < .001^{***}$]. The results on the effects of where teenagers stay in relationship to the risk of being abused show that those who stay with relatives are five times higher at risks of being abused compared to the fellows who stays with their parents [OR: 5.312, CI: 2.45; 11.51, $p < .001^{***}$]

Table 6 Multivariate analysis by logistic regression model for factors associated to sexual abuse among adolescents

Variable		OR	95% CI	p_ Value
Age				
	12-15 Yrs	1		
	16+	2.14	[1.39; 3.29]	<.001***
Sex				
	Male	1		
	Female	2.052	[1.29; 3.25]	.002**
Residence				
	City	1		
	Rural	.345	[.22;.52]	<.001***

Living with				
	Both parents	1		
	Friends	1.396	[.77; 2.50]	.263
	Relatives	5.312	[2.45; 11.51]	<.001***
N= 400, outcome : Sexual abuse (yes or no) , *p<0.05, ***p<0.001				

CHAPTER FIVE: DISCUSSION

In this study, we found that 43.5% of the teenagers experienced sexual abuse at some extent, regardless of the type of abuse. Moreover, 80% of the abuse went up to sexual intercourse among female and 20 % among male. When you look at the relationship with abusers, results show that close relatives play a role in the abuse including stepparents. Results on where the victim was by the time of abuse show that in 50.3% of the case it happened in the house of the abusers, however, at home where the victims stay even at school the abused happened as well. This study revealed the following independent factors associated with school teenagers' abuse: the age, the sex the residence along with the persons with whom the school teenagers stays with. Such results dictate that at least family, child and environmental factors play a role in exposing children to sexual abuse which is consistent with what literature says(Goldman, J.et all, 2003). Another interesting finding from this study, is that divergent to popular belief that sexual abuse perpetrators are often someone known by the family(Madu & Peltzer, 2000). According to this study' results the perpetrator is the person the teenagers know since they include close relatives. Moreover, even if most perpetrators are young, older people are involved as well, which is contrary with what the literature says(Korn, 2004) .

in this study male and female reported to be victim of sexual abuse , but when you look at the proportion, we have more female than male which mean that male lead sexual related abuse and this can be explained by the facts that in our culture male control sexual norms and this is corroborate with other studies (Ruto, 2009).

Given the context and regardless of the circumstances, sexual abuse among school teenagers is worse experience and a threat well being of teenagers. Therefore, prevention should be targeting education of people, from parents to students and the community as a whole. in addition to dissuasive measures. For instance in Kenya a structured methods empowering the potential victim made them able to be able to resist abuse and this was achieved through a holistic mass education which drowned connection to the social contexts with the aim of enhancing values , helped in sexual abuse prevention(Ruto, 2009)

CHAPTER SIX: CONCLUSION

The results from this study confirm that sexual abuse among teenagers at school exists . The study identified factors like age, gender area of residence and person with whom the students live with as independent factors that are associated with the risks of being abused.

Limitations of the study

The data collection for the purpose of this study used self-report questionnaires and asked about sexual abuse and sexual experience, which is a sensitive subject. the above method is subject to social desirability bias, which refers to the individual tendency to report on the positive side of life and deny the shadowed side. Consequently, it is possible that participants were shy and reluctant to report what happened. This could have affected our results in term of under estimation of the truth.

Another limitation is related to the study design. Because a cross-sectional design assesses an event at one point in time and cannot assess the change over time, the study cannot claim to describe cause-effect relationships.

As for recommendation for further study, a qualitative study design with in-depth interview will be more informative because the sexual issues are sensitive.

Recommendations

Although Rwanda has taken some steps in implementing protection and preventive programs aiming at stopping sexual abuse among children and teenagers match remain to be done. Abuse happen in different locations and many are not reported. The researcher recommend to parents to closely monitor who stays with their children especially in urban area. There is a need for more campaign to increase public awareness and parents in particular, it will be helpful to set up communication means that will help victims to report what happened to them (such as 24 hours hotline) without fear of consequences.

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APPENDIX I: QUESTIONNAIRE

1. Age		
2. Gender		
Female	1	
Male	2	
3. Religion		
Christian	1	
Muslim	2	
Others	3	
4. Residence		
Urban residence	1	
Rural residence	2	
5. Living arrangement of the student		
Lives with Father and mother	1	
Lives with mother only	2	
Lives with father only	3	
Lives with Friends	4	
Lives with Relatives	5	
Lives Alone	6	
6. Have parents		
Both parents	1	
Mother only	2	
Orphans		
7. Father only	3	
None of them	4	
8. Mother education		
No formal education	1	
Primary	2	
Secondary and above	3	
9. Father education		

No formal education	1	
Primary	2	
Secondary and above	3	
10. Mather' occupation		
Self-employed	1	
Paying job	2	
Not employed	1	
11. Father' occupation		
Self-employed		
Paying job		
Not employed		
12. Ubudehe Category		
1.		
2.		
3.		
4.		
13. Do you have all school necessity the way you need them?		
Yes	1	
No	2	
14. Do you feel missing the basics for your life comparing to any other child of your age?		
Yes	1	
No	2	
15. Have you experienced any sexual abuse?		
Yes	1	
No	2	
16. Type of sexual abuse		
Tried to kiss or hug you in a disturbing way , against your will	1	
Kissed various parts of your body (not just your face) against your will	2	
Forced you to sit on his her lap , and rubbed against you to reach sexual satisfaction	3	

Tried to force you to expose your genitals	4	
Exposed his or her genitals	5	
Forced you to touch his/ her genitals	6	
Touched your genitals against your will	7	
Watch pornographic pictures and movies	8	
Take nude photos	9	
Put his fingers or objects in your genitals	10	
Tried to have intercourse with against your will	11	
Have intercourse with you against your will	12	
17. History of sexual intercourse (yes/no)		
Yes	1	
No	2	
18. If yes Reasons for first sexual intercourse		
Curiosity	1	
Gift promise	2	
Seek Organ growth	3	
Rape	4	
Others	5	
19. Age at which sexual intercourse started (Years)		
Early child hood	1	
Primary school	2	
Secondary school	3	
20. Reason for starting sexual intercourse (willingness, peer pressure, forcefully to get money/food)		
Willingness	1	
Peer Pressure	2	
Forcefully to get money or food/gift	3	
21. Sexual abuse in relation to perpetrators		
Family member (father, brother or other relatives)	1	
Outside the home (friend , neighbor, teacher , stranger)	2	

APPENDIX II: INFORMED ASSENT FORM

My name is TUYISENGE M. Jeanne , I am student at *College of Medicine and Health Sciences , School of Public Health*, I am conducting a survey entitled, “PREVALENCE AND RISK FACTORS ASSOCIATED TO SEXUAL ABUSE AMONG TEENAGERS IN NINE AND TWELVE YEARS BASIC EDUCATION”. CASE OF GASABO DISTRICT

The information collected will help me to fulfill my academic requirements for the award of a master’s degree in public health and help Gasabo district as well as the government of RWANDA to put more effort to prevent it. You have been chosen as one of the respondents and you are expected to give information or answers to the questions asked, since this is purely an academic research; all information given shall be treated with utmost confidentiality.

In case, you need more information about the survey or if you have any question please contact me on cell phone 0788489065/0728489065.

After reading the foregoing information, I consent voluntary to take part as a participant in this study.

Participant Signature _____

Date _____

APPENDIX III: INFORMED CONSENT FORM

My name is TUYISENGE M. Jeanne , I am student at *College of Medicine and Health Sciences , School of Public Health*, I am conducting a survey entitled, “PREVALENCE AND RISK FACTORS ASSOCIATED TO SEXUAL ABUSE AMONG TEENAGERS IN NINE AND TWELVE YEARS BASIC EDUCATION”. CASE OF GASABO DISTRICT

The information collected will help me to fulfill my academic requirements for the award of a master’s degree in public health and help Gasabo district as well as the government of RWANDA to put more effort to prevent it. Your child has been chosen as one of the respondents. We would like to request you as a parent to allow your child to participate in this study. We ensure you that the aim of this study is purely an academic research; all information given shall be treated with outmost confidentiality.

In case, you need more information about this survey or if you have any question please contact me on cell phone 0788489065/0728489065.

After reading the foregoing information, I agree that my child should take part as a participant in this study.

Participant Signature _____

Date _____

APPENDIX: IV: IRB CERTIFICATE



COLLEGE OF MEDICINE AND HEALTH SCIENCES

CMHS INSTITUTIONAL REVIEW BOARD (IRB)

Kigali, 26/May/2016

TUYISENGE Marie Jeanne
School of Public Health, CMHS, UR

Approval Notice: No 230 /CMHS IRB/2016

Your Project title *“Prevalence And Risk Factors Associated To Sexual Abuse Among Teenagers In Nine And Twelve Years Basic Education” Case Of Gasabo District* has been evaluated by CMHS Institutional Review Board.

Name of Members	Institute	Involved in the decision		
		Yes	No (Reason)	
			Absent	Withdrawn from the proceeding
Prof Kato J. Njunwa	UR-CMHS	X		
Prof Jean Bosco Gahutu	UR-CMHS		X	
Dr Brenda Asiimwe-Kateera	UR-CMHS	X		
Prof Ntaganira Joseph	UR-CMHS		X	
Dr Tumusiime K. David	UR-CMHS	X		
Dr Kayonga N. Egide	UR-CMHS		X	
Mr Kanyoni Maurice	UR-CMHS	X		
Prof Munyanshongore Cyprien	UR-CMHS	X		
Mrs Ruzindana Landrine	Kicukiro district		X	
Dr Gishoma Darius	UR-CMHS	X		
Dr Donatilla Mukamana	UR-CMHS		X	
Prof Kyamanywa Patrick	UR-CMHS		X	
Prof Condo Umutesi Jeannine	UR-CMHS		X	
Dr Nyirazinyoye Laetitia	UR-CMHS		X	
Dr Nkeramihigo Emmanuel	UR-CMHS		X	
Sr Maliboli Marie Josee	CHUK	X		
Dr Mudenge Charles	Centre Psycho-Social	X		

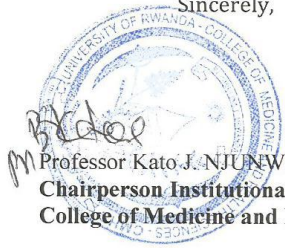
After reviewing your protocol during the IRB meeting of where quorum was met and revisions made on the advice of the CMHS IRB submitted on 19th May 2016, **Approval letter has been granted to your study.**

Please note that approval of the protocol and consent form is valid for **12 months**. You are responsible for fulfilling the following requirements:

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1. Changes, amendments, and addenda to the protocol or consent form must be submitted to the committee for review and approval, prior to activation of the changes.
2. Only approved consent forms are to be used in the enrolment of participants.
3. All consent forms signed by subjects should be retained on file. The IRB may conduct audits of all study records, and consent documentation may be part of such audits.
4. A continuing review application must be submitted to the IRB in a timely fashion and before expiry of this approval
5. Failure to submit a continuing review application will result in termination of the study
6. Notify the IRB committee once the study is finished

Sincerely,



Professor Kato J. NJUNWA
**Chairperson Institutional Review Board,
College of Medicine and Health Sciences, UR**

Date of Approval: The 26th May 2016

Expiration date: The 26th May 2016

Cc:

- Principal College of Medicine and Health Sciences, UR
- University Director of Research and Postgraduate studies, UR