



**UNIVERSITY OF ZAMBIA**

**SCHOOL OF MEDICINE**

**A CROSS-SECTIONAL STUDY OF THE PATTERNS OF SEXUAL ASSAULT  
VICTIMS PRESENTING TO THE UNIVERSITY TEACHING HOSPITAL,  
LUSAKA, ZAMBIA.**

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**DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE  
REQUIREMENT FOR THE DEGREE OF MASTER OF MEDICINE IN  
OBSTETRICS AND GYNAECOLOGY**

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## ABSTRACT

**Background:** Sexual assault, which encompasses defilement and rape, is a public health and public safety problem with most victims being women and children. The consequences of sexual assault include physical injuries, psychological trauma, depression, suicide or suicidal attempt and post-traumatic stress disorder (PTSD) as a long term consequence. Others are unwanted pregnancies and risk of sexually transmitted infections including human immunodeficiency virus (HIV). There is little information about the conditions under which sexual assault occurs. The aim of this study was to determine the patterns of sexual assault victims presenting to the University Teaching Hospital (UTH).

**Methodology:** This was a cross sectional study carried out on sexual assault victims who presented to UTH over a four month period from December 2013 to April 2014. A total of 160 participants were recruited; 59 from the gynaecology admission ward (C03) and 101 from the Paediatric Centre of Excellence Child Sexual Assault (PCOE-CSA). Participants were interviewed using an interviewer administered questionnaire while some data was extracted from victims' files, including documented HIV status. Frequency tables were constructed and characteristics of sexual assault compared between victims aged below 16 years and those aged 16 years and above. Data analysis was done using SPSS version 20.

**Results:** The ages of 160 victims ranged from 2 to 34 years and the most affected age group was 11-15 years (91; 56.9%). Victims were mostly single (149; 93.1%), had attained primary education or none (102; 63.8%) were unemployed (149; 93.1%) and resided in high density areas (144; 90%). Only 12 (7.5%) of victims tested HIV positive. A positive HIV test occurred 14 times more frequently in victims aged 16 years and above (OR=14.32, CI=2.35 – 87.22, P-value < 0.01). Majority of the incidents took place in residential homes (110; 68.8%) and these were significantly less common among victims aged 16 years and above (OR=0.33, CI=0.11 – 0.98, P-value =0.05). The majority of perpetrators were known to the victims (119; 74.4%). Sexual assault perpetrated by strangers affected victims aged 16 years and above more than those aged below 16 years (50.0% versus 17.5%; P <0.01). About half of victims (84; 52.5%) reported to UTH within 72 hours of assault and these were 4.5 times more likely to be aged 16 years and above (OR=4.53, CI=1.23-16.73, P-value=0.02). Genital injuries were present in 70% of victims. Absence of genital injuries was 8 times more in victims aged 16 years and above (OR=8.46, CI =2.78–25.77, P-value <0.01).

**Conclusion:** The majority of sexual assault victims were younger (<16 years). Younger victims were mostly assaulted by perpetrators known to them, mainly in residential homes while older victims were mostly assaulted by strangers in isolated places. Compared to older victims, younger victims presented more to UTH later than 72 hours following assault and sustained genital injuries more frequently. Patterns of sexual assault are therefore different in younger victims compared to adults.

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## TABLE OF CONTENTS

	PAGE
Copyright declaration.....	i
Declaration .....	ii
Statement .....	iii
Certificate of approval.....	iv
Abstract.....	v
Acknowledgements .....	vi
Table of contents .....	vii
List of Tables and Figures.....	ix
Abbreviations and acronyms.....	x
Dedication .....	xi
1.0 Introduction .....	1
2.0 Literature review .....	4
3.0 Statement of the problem .....	7
4.0 Study justification .....	7
5.0 Research question .....	7
6.0 Objectives .....	7
6.1 General objective .....	7
6.2 Specific objectives .....	7
7.0 Research methodology .....	8
7.1 Study design .....	8
7.2 Study site .....	8
7.3 Target population .....	8



7.4 Study population.....	8
7.5 Inclusion criteria .....	8
7.6 Exclusion criteria .....	8
7.7 Study duration.....	9
7.8 Participant recruitment .....	9
7.9 Sampling methods.....	9
7.10 Sample size.....	9
8.0 Data collection and analysis.....	10
9.0 Ethical considerations.....	10
10.0 Results.....	11
11.0 Discussion.....	21
12.0 Conclusion.....	25
13.0 Study limitations.....	25
14.0 Recommendations.....	26
15.0 References .....	27
16.0 Appendices.....	31
16.0.1 Appendix I: Participant Information sheet, Consent and Assent forms...	31
16.0.2 Appendix II: Questionnaire.....	34
16.0.3 Appendix III: Approval letter from UTH management .....	39
16.0.4 Appendix IV: Letter of GPPF clearance.....	40
16.0.5 Appendix V: Letter of approval from UNZABREC.....	41

## LIST OF TABLES AND FIGURES

	<b>PAGE</b>
Table 1: Socio-demographic characteristics of victims.....	11
Table 2: Characteristics of perpetrators.....	14
Table 3: Characteristics of sexual violence.....	17
Table 4: Comparison of study variables with age groups <16 and $\geq 16$ years ....	18
Table 5: Logistic regression analysis results predicting age $\geq 16$ years .....	19
Figure 1: Age distribution of victims.....	12

## **ABBREVIATIONS AND ACRONYMS**

AST	:	Alaska State Troopers
C03	:	Gynaecology Admission Ward
CSA	:	Child Sexual Assault
EC	:	Emergency Contraceptive
GBV	:	Gender Based Violence
HIV	:	Human Immunodeficiency Virus
PCOE	:	Paediatric Centre of Excellence
PCOE-CSA	:	Paediatric Centre of Excellence Child Sexual Assault
PEP	:	Post-Exposure Prophylaxis
PTSD	:	Post-traumatic Stress Disorder
STI	:	Sexually Transmitted Infection
UNZABREC	:	University of Zambia Biomedical Research Ethics Committee
USA	:	United States of America
UTH	:	University Teaching Hospital
VSU	:	Victim Support Unit
WHO	:	World Health Organization
ZDHS	:	Zambia Demographic and Health Survey
ZSBS	:	Zambia Sexual Behavior Survey

## **DEDICATION**

This work is dedicated to my family, my teachers and survivors of Gender Based Violence.

## **1.0 INTRODUCTION**

Gender Based Violence (GBV) as defined by the World Health Organization (WHO) is any act which results in physical, sexual or psychological harm targeting individuals or groups of individuals on the basis of their gender. GBV including sexual violence is a problem throughout the world, Zambia included. Sexual assault which encompasses defilement and rape is a public health and public safety problem with far reaching implications. Rape is the unlawful carnal knowledge of a woman without her consent or if consent is obtained by force or intimidation while defilement is the unlawful carnal knowledge of a girl under the age of sixteen years regardless of whether consent is obtained or not from the girl (Zambian Penal Code, Chapter 87).

Although men are also victims of abuse, the majority of victims tend to be women and children (Krug, Dahlberg, Mercy & Zwi, 2002). Gender based violence is a form of discrimination that seriously inhibits women's ability to enjoy rights and freedoms on the basis of equality with men. The Fourth International Conference on Women held in Beijing in 1995, recognized the right of women to decide freely about their fertility and sexuality, without suffering any form of coercion, discrimination or violence. However, the violation of this right occurs in almost all societies and cultures, particularly those in which women are still firmly subordinated to the arbitrary decisions of men (Drezett, Kurobe, Nobumoto & Pedroso, 2012).

Sexual violence takes place within a variety of settings, including the home, the workplace, schools and the community. The causes of violence against women are not clearly understood, but associated factors include unequal status between men and women in communities, inadequate communication, violent upbringing among children, stress, poverty, and drug abuse. The consequences of violence against women and children affect not just the direct and immediate victim but also other members of a family, friends and the wider community. The consequences of sexual violence on the victim can be immediate, short-term or long-term. They include physical injuries (genital and extra genital), psychological trauma such as anxiety, depression, sexual dysfunction, suicide or suicidal attempt and post-traumatic stress disorder (PTSD) as a long term consequence. Others are unwanted pregnancies and risk of acquiring sexually transmitted infections including HIV and Hepatitis (Drezett, Pedroso, Vertamatti & Blake 2012). Victims of sexual assault need attention for various medical conditions, psychological treatment,

guidance on legal issues, social support, advice on prevention of unwanted pregnancy and prophylaxis against HIV and other STIs.

In the evaluation of sexual assault victims, there are two types of examination, an acute examination and a non-acute examination. An acute examination is done within 72 hours of sexual assault and it's the period in which injuries and other forensic evidence like foreign DNA and spermatozoa are likely to be found in the ano-genital regions of sexual assault victims (Christian, 2000). It is also the period in which HIV post exposure prophylaxis must be administered for it to be effective in preventing HIV infection after exposure (GRZ, The National Guidelines for the Multidisciplinary Management of Survivors of Gender Based Violence in Zambia, 2011). A non-acute examination is done more than 72 hours after sexual assault and the chances of finding ano-genital injuries as well as other forensic evidence is greatly reduced.

In USA, of the rape victims, 25-40% suffer non-genital trauma, 19-25% suffer genital trauma, up to 40% get sexually transmitted disease and 1-5% become pregnant (Holmes, Resnick, Kirkpatrick & Best, 1996). Four out of five rape victims subsequently suffer from chronic physical or psychological conditions (Strategies for the treatment and prevention of sexual assault, 1995). Rape victims are thirteen (13) times more likely to attempt suicide than non-crime victims and six (6) times more likely than victims of other crimes (Rape in America: A report to the nation, 1992). At least 50% of college women sexually assaulted involve the use of alcohol or other drugs by the perpetrator, victim or both (Abbey 2002; Fisher et al 2000; Testa & Parks 1996). Surveys conducted in sub-Saharan Africa reveal that 46% of Ugandan women, 60% of Tanzanian women, 42% of Kenyan women, and 40% of Zambian women report regular physical abuse (Lora, 1998). In a Nigerian survey, 81% of married women report being verbally or physically abused by their husbands, 46% report being abused in the presence of their children (Lora, 1998). The World Bank estimates that rape and domestic abuse account for 5% of healthy years of life lost to women of reproductive age in developing countries (Lori et al, 1994).

Reports from the 2007 Zambia Demographic and Health Survey (ZDHS, 2007) indicate that more than 54% Zambian women have suffered from partner or spouse abuse at some point in time (physical, emotional or sexual). The Zambia Sexual Behavior Survey (ZSBS) of 2009 indicate that about 26% of female respondents in urban and 20% in rural areas

reported ever being forced to have sex against their will (Central Statistical Office (CSO), Ministry of Health (MOH), University of Zambia, and MEASURE Evaluation 2010). When this abuse occurred in the 12 months prior to the survey, the perpetrators were mostly their live-in partners (44%) or boyfriends (27%). At UTH, sexual assault victims below the age of 16 years are attended to at PCOE-CSA while those aged 16 years and above are seen from the gynaecology admission ward (C03). Although this age related vulnerability of victims also has legal implication (defilement versus rape), it is not known whether socio-demographic variables and the dynamics of sexual offences among victims aged below 16 years differ from those aged 16 years and above. At UTH, sexual assault registers for 2012 indicate that 254 sexual assault victims were attended to at the gynaecology ward (C03) ward giving a monthly average of 21; while over 1,248 children were attended to at PCOE-CSA. In terms of demographics, registers at both C03 ward and PCOE-CSA indicate only age and residential area of victims.

Given the substantial impact sexual assault has on individual victims and society, knowledge of the patterns of sexual assault victims in our communities can help in formulating strategies and policy decisions on how to minimize on sexual assault cases. No study has been done yet to document the patterns of sexual assault victims presenting to UTH. This study aims to narrow this information gap and contribute to community and family awareness as well as influence policy decisions on how to minimize sexual assault based on sound scientific evidence.

## **2.0 LITERATURE REVIEW**

Sexual assault remains a major problem throughout the world and Zambia in particular, where the consequences have been seen in terms of physical, psychological and emotional trauma among women and children. Reports from the Lusaka District Victim Support Unit (VSU) of 2009 indicate that there were about 1,676 defilement cases, 244 rape cases, 188 indecent assaults, 15 defilement of those mentally slow and 30 incest cases.

Marcia et al (2014) did a study on characteristics of sexual violence against adolescent girls and adult women in Sao Paulo, Brazil. Data was collected from 1118 women, 546 adolescents (10-19 years) and 572 adults ( $\geq 20$  years), with a complaint of rape treated at Hospital Pérola Byington, São Paulo, between 1994 and 1999. They analyzed the type of sexual contact, degree of intimidation, perpetrator and activity of the victim during the approach. The results showed that crimes without penetration were five times more frequent in adolescents and use of threats of death or intimidation was common in both groups. Mental illness was more prevalent in adult victims and the majority of adolescent victims were aged  $<14$  years. Uncle and stepfather perpetrators were more frequent among adolescents and partners or former intimate partners in adult women. In most cases the approach occurred in public places, although sex crimes at the perpetrator's residence were more frequent amongst adolescents.

Christopher et al (2007) conducted a College Sexual Assault (CSA) study at two universities in USA from January 2005 to December 2007 (Christopher et al, 2007). Data was collected using a web based survey from 5,466 college women. The results of this study showed that 13.7% of college women had at least once been sexually assaulted since entering college, while 28.5% had experienced attempted or completed sexual assault either before or since entering college. The results also showed that 11% of the college women experienced sexual assault while incapacitated by alcohol and other drugs, 63% of sexual assaults occurred outside campus and that 70% of the victims had told someone about the incident (roommate, friend, family member or partner).

Greg et al (2007) conducted a descriptive analysis of sexual assault incidents reported to the Alaska State troopers (AST) from January 2003 to December 2004. The results of this study showed that 50% of the perpetrators had taken alcohol and/or other drugs at the time of the assault. The average age of the victims was 16.2 years, 80% were under the age of



21 years. About a third (32%) of the victims had used alcohol & other drugs at the time of assault, 48% presented for medical examination within 24 hours of assault, 17% of victims had evidence of vaginal penetration and only 10% of those who had vaginal penetration had perpetrators who used condoms. Most of the assaults (86%) occurred in private residences and 98% of the perpetrators were known to the victims (friends/acquaintances, family members, current or former partners).

In 2000, the US Department of Justice reported that 68% of the rape victims knew their assailant; 28% of victims were raped by their husbands or boyfriends, 35% by acquaintances, and 5% by other relatives, while 29% were raped by strangers.

In 2006, Tjaden & Thoennes in USA used data from the National Violence Against Women Survey to document an association between the presence of alcohol and drugs and victimization of women. They found that 67% of women who reported that they had been raped said that the rapist had used alcohol or drugs at the time of the event.

In 2002, Clay-Warner in USA had used data from the National Crime Victimization Survey to examine how self-protective behaviors by victims may influence the outcomes of sexual violence. She found that women's use of physically protective actions such as fighting and trying to flee is associated with lower chances that the rape will be completed.

In 2012, The Avon Global center for Women and Justice, the Cornell International Human Rights Clinic, and Women and Law in Southern Africa – Zambia released a report on sexual violence against girls in Zambia's schools based on interviews conducted in Lusaka province. Of the 105 girls who were interviewed, 54% said they had personally experienced sexual violence or harassment by a teacher, student or man they encountered while travelling to and from school. 84% reported that they had experienced or knew of classmates who had experienced such abuse.

In Western Kenya, Ranney et al in 2007 did a study on the description of sexual assault survivors and analysis of treatment patterns at the Center for Assault Recovery Eldoret (CAR-E). The study showed that survivor mean age was 15.9 years and that 50% of the survivors were below 14 years of age. It also revealed that survivors were predominantly single and most knew their assailants. Only 43% of the survivors had reported to the police, while at the medical center (CAR-E) 84% received STI prophylaxis, 64% of the

eligible survivors received emergency contraception (EC) and 63% of the eligible survivors received post exposure prophylaxis (PEP) against HIV.

In a study by Moller et al (2012) in Sweden, differences in the extent of physical injury in sexual assaults committed by intimate partners compared with assaults by strangers were studied. The results showed that women sexually assaulted by their intimate partners more frequently reported physical violence (OR=4.1) than women assaulted by strangers (OR=2.0). Genital injuries were however not found to be related to victim-assailant relationship in this study.

Ekabua et al (2006) studied the risk factors associated with sexual assault in Calabar, South-Eastern Nigeria. The results of this study showed that 54% of the victims had not attained menarche and 90.9% victims were single. The results also showed that 36.4% of the assaults occurred in the nearby bush tracks and 22.7% cases occurred in the nearby cemetery. The time of assault was mainly in the evening (50%). The identity of the assailant was only known in 31.8% of the cases while the commonest weapon used by the assailant was the knife (36.4%).

The Zambia Sexual Behavior Survey (ZSBS) of 2009 indicate that about 26% of female respondents in urban and 20% in rural areas reported ever being forced to have sex against their will. When this abuse occurred in the 12 months prior to the survey, the perpetrators were mostly their live-in partners (44%) or boyfriends (27%).(Central Statistical Office (CSO), et al, 2010). Adeleke et al (2012) did a study on sexual assault in women by reviewing hospital records of sexual assault victims between 2003 and 2009 at Osogbo, South-Western Nigeria. The results showed that the mean age of the victims was 15.8 years ranging from 5 to 48 years. Most (73.7%) were less than 18 years while 93.2% were single. About 81% of the victims less than 18 years were abused in the day time. Majority (79.6%) knew their assailants. About 40% of the victims presented within 24 hours of sexual abuse but none received post exposure prophylaxis (PEP).

The above studies have shown that the majority of sexual assault victims are young and mostly single. The assailants are also known in majority of cases. No studies have been done yet at UTH to document the patterns of sexual assault victims. A review of sexual assault registers at UTH indicated that only age of victims and residential address in terms of social and demographic information were recorded. This study endeavored to study the patterns of sexual assault victims presenting to UTH.

### **3.0 STATEMENT OF THE PROBLEM**

Sexual assault, particularly rape and defilement, is a major problem in Zambia. According to the 2012 UTH sexual assault registers, 1,248 child sexual assault and 254 rape cases were recorded. The consequences of sexual assault include physical injuries, psychological trauma, unwanted pregnancies and contracting of STIs including HIV and hepatitis. Information on the patterns of sexual assault victims presenting to UTH is lacking thereby contributing to difficulties in combating this vice.

### **4.0 STUDY JUSTIFICATION**

There is a knowledge gap regarding patterns of sexual assault victims presenting to UTH. Given the substantial impact sexual assault has on the victims, families and the community, this study was designed to address this information gap. The information obtained from this study can be used to mobilize community responses and formulate strategies and policy decisions on how to combat sexual assault of women and children in our communities.

### **5.0 RESEARCH QUESTION**

What are the patterns of sexual assault victims presenting to the University Teaching Hospital, Lusaka Zambia?

### **6.0 OBJECTIVES**

#### **6.1 General Objective**

To determine the patterns of sexual assault victims presenting to the University Teaching Hospital, Lusaka.

#### **6.2 Specific Objectives**

1. To determine the socio-economic and demographic characteristics of sexual assault victims.
2. To determine personal risk factors and behaviors associated with being a sexual assault victim.

3. To determine characteristics of perpetrators of sexual assault.
4. To determine the presence of genital injuries in sexual assault victims.
5. To compare the above in younger (<16years) with older victims ( $\geq 16$  years).

## **7.0 RESEARCH METHODOLOGY**

### **7.1 Study design**

This study was a descriptive cross-sectional study.

### **7.2 Study site**

The study was conducted at C03 ward and PCOE-CSA of the UTH, in Lusaka Zambia.

### **7.3 Target population**

Sexual assault victims presenting to UTH.

### **7.4 Study population**

Sexual assault victims presenting to UTH meeting the eligibility criteria.

### **7.5 Inclusion criteria:**

1. Participant must have presented to the gynaecology emergency ward (C03) ward or PCOE-CSA at UTH during the study period.
2. Must have provided informed consent to participate in the study. For those below the age of consent (below 18 years of age), their parents or guardians will have provided it on their behalf. Assent will also have been sought from victims aged between seven and eighteen years.

### **7.6 Exclusion criteria**

1. Those who would not have consented.
2. Those aged between seven and eighteen years whose parents/guardians had consented but had not given assent.
3. Those who would not have presented to C03 ward or PCOE-CSA for examination and management of sexual assault.

## **7.7 Study duration**

The study took five months from December 2013 to April 2014 for participant recruitment.

## **7.8 Participant recruitment**

Participants were recruited from those presenting to C03 ward or PCOE-CSA at UTH for examination and management of sexual assault. For those who were eligible to be included in the study, the objective of the study and what was involved were explained to them or their parents/guardians in case of children (see participant information sheet in appendix 1). Informed consent and assent for those who required it were then obtained using the consent and assent forms in appendix 1. Some data was obtained verbally from the participants using the questionnaire illustrated in Appendix 2 while other data was extracted from the case files.

## **7.9 Sampling methods**

Convenience sampling was used on all sexual assault victims presenting to UTH to identify those who met the inclusion criteria.

## **7.10 Sample size**

$$N = Z^2 \times P(1-P) / D^2$$

N = sample required

Z = Z statistic (usually 1.96 when using a 95% CI)

P = expected prevalence = 10% (From VSU reports sexual assault prevalence in the community was about 20% & only about half reported to the police & health centres)

D= acceptable accuracy range (+/- 0.05)

$$N = 1.96^2 \times 0.1(1-0.1) / 0.05^2 = 138.29$$

Adjusting for non-response rate at 15%,

**Sample Size = 160.**

## **8.0 DATA COLLECTION AND ANALYSIS**

Data was collected using a pre-tested interviewer-administered questionnaire (see Appendix 2) by interviewing the participants and by checking in the medical records to extract data related to HIV test results and presence or absence of genital injuries. All the information collected was entered in Epi-info software. Data entry errors were reduced by using double entry checks. Range and consistency checks were also done. A univariate analysis of independent variables was done. Descriptive results are presented as percentages and means (with 95% confidence intervals). The Chi-squared test (and Fisher's exact test if cell values were less than 5) was used for comparison of proportions between groups. The relationship between study variables and age group category was examined using logistic regression. All statistical procedures were done using SPSS for Windows Version 20. Significance level of  $P < 0.05$  was set as statistically significant.

## **9.0 ETHICAL CONSIDERATIONS**

There was very minimal interference to the participants beyond the general standard of clinical care offered by UTH. Written informed consent was obtained from all participants or their parents/guardians. In case of children aged between seven and eighteen years, assent was also obtained from the child in addition to consent from the parents/guardians. It was made clear to the participants that their participation in the study was purely voluntary and that they were free to withdraw from the study at any time without any prejudice to further medical care if they wished to. Participants were informed that there were no monetary or material benefits in being part of the study. Permission to conduct the study was obtained from UTH management (Appendix 3). Ethical approval was obtained from the University of Zambia Biomedical Research Ethics Committee (UNZABREC) (Appendix 4). In terms of the protection of participants and to minimize risk of disclosure to others and discrimination or stigmatization, all measures were taken to ensure strict confidentiality. This was possible through training of the research assistants emphasising confidentiality. In addition, each participant was assigned a confidential code number to be used by staff when collecting and reporting information. There were no personal identifiers on the data collection instruments. The study also ensured that through the on-call doctors, participants got the necessary medical follow up and those in need of further support were referred to appropriate psychosocial support groups.

## 10.0 RESULTS

A total of 160 victims of sexual assault were recruited to participate in the study between 16<sup>th</sup> December 2013 and 15<sup>th</sup> April 2014. All the 160 participants met the eligibility criteria and were successfully interviewed, yielding a 100% response rate. Out of the 160 victims, 36.9% (59) were recruited from the gynecology admission ward (C03) while 63.1% (101) were recruited from the Paediatric Center of Excellence Child Sexual Assault (PCOE-CSA).

### 10.1 Socio-demographic characteristics of the victims

These are tabulated in table 1.

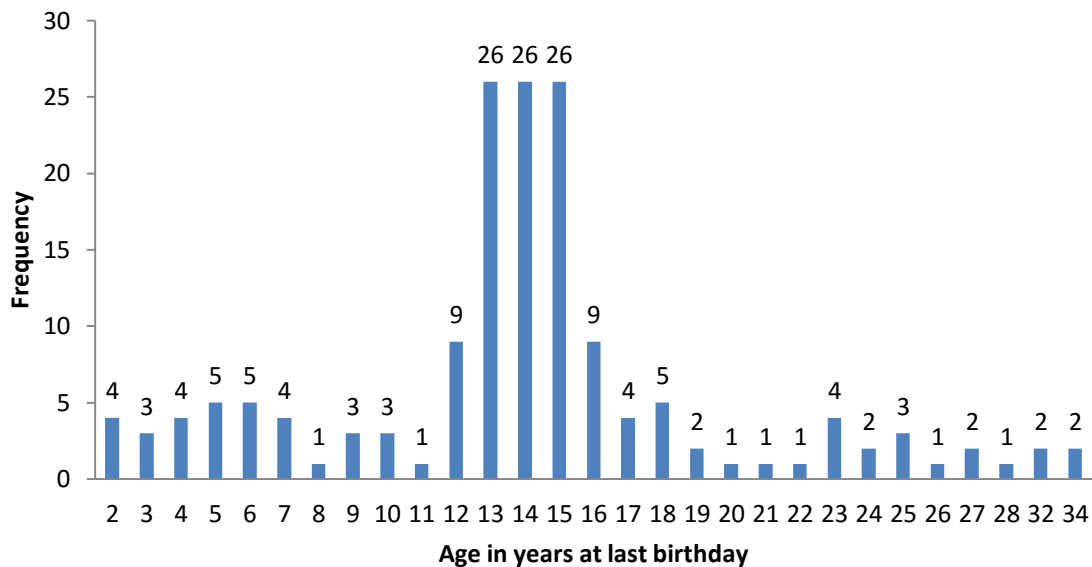
**Table 1: Socio-demographic characteristics of victims**

Characteristics		Frequency (n)	Percentage (%)
Age (years)	<2	0	0
	2-5	16	10
	6-10	13	8.1
	11-15	91	56.9
	16-20	21	13.1
	>20	19	11.9
Sex	Female	156	97.5
	Male	4	2.5
Marital status	Single	149	93.1
	Married	7	4.4
	Widowed	0	0
	Divorced	4	2.5
Current/ highest education level	None	25	15.5
	Primary	77	48.1
	Secondary	58	36.4
	Tertiary	0	0
Occupation	unemployed	149	93.1
	Informal	9	5.6
	Formal	2	1.3
Religion	Christian	160	100
	Other	0	0
Residence	High density	144	90
	Low density	16	10
HIV test result	Positive (+)	12	7.5
	Negative (-)	147	91.9
	Declined	1	0.6
<b>Total</b>		<b>160</b>	<b>100</b>

### 10.1.1 Age of Victims

The age of victims ranged from 2 to 34 years of age while the mean age was 14 years (SD=6.08). See figure 1.

Figure 1: Age distribution of victims



The most affected age group was between 11 and 15 years of age 56.9% (91). See table 1. The adolescent age group (13-19 years) constituted 61.3% (98) of all the victims, while females of reproductive age (13-45 years) constituted about 73.8% (118). Victims aged less than 16 years constituted 75% (120) while those aged 16 years and above constituted 25% (40).

### 10.1.2 Sex of Victims

The victims were mostly female 97.5% (156) while male victims constituted only 2.5% (4). All the 156 female victims were sexually assaulted by male perpetrators. On the other hand, two of the male victims were sodomised by male perpetrators while the other two were indecently assaulted by female perpetrators. All the male victims were below the age of 15 years.



### **10.1.3 Residential area of victims**

The majority of victims (144; 90%) resided in high density residential areas such as shanty compounds and peri-urban areas while only 10% (16) resided in low density residential areas.

### **10.1.4 Marital status of victims**

The majority of the victims were found to be single (149; 93.1%). Those who were married constituted 4.4% (7) while those who were divorced or separated constituted 2.5% (4).

### **10.1.5 Current or Highest level of education attained by victims**

The majority of victims was either in primary school or had attained only primary school education (77; 48.1%). Those who were either in secondary school or had reached secondary school constituted 36.3% of victims (58). None of the victims had reached tertiary level of education while 15.6% (25) had not been to school at all.

### **10.1.6 Occupation of victims**

The majority of victims were unemployed (149; 93.1%), 5.6% (9) were in informal employment and only 1.3% (2) were in formal employment.

### **10.1.7 Religion of victims or parents/ guardians**

All the victims or parents/ guardians in case of children were Christians (160; 100%).

### **10.1.8 HIV test results of victims**

Majority of the victims tested HIV negative (147; 91.9%) while 7.5% (12) tested positive. One victim from the PCOE-CSA declined an HIV test.

## 10.2 Characteristics of Perpetrators

### 10.2.1 Sex of Perpetrators:

The majority of the victims were sexually assaulted by male perpetrators (158; 98.5%).

The victims who were sexually assaulted by female perpetrators were both boys under the age of 15 years of age. See table 2.

### 10.2.2 Number of Perpetrators

The majority of victims were sexually assaulted by a single perpetrator (151; 93.4%) while 6.6% (9) were sexually assaulted by more than one perpetrator. Among the victims sexually assaulted by more than one perpetrator, 5 victims were assaulted by 2 perpetrators, 3 victims by 3 perpetrators while 1 victim was assaulted by 4 perpetrators.

### 10.2.3 Identity of perpetrators

The perpetrators were known in the majority of cases (119; 74.4%) while in 25.6% (41), the perpetrators were not known.

### 10.2.4 Relationship of victims to perpetrators

Majority of the victims were sexually assaulted by acquaintances (60; 37.5%) such as neighbors, friends, servants, landlord's children and teachers. Sexual assault perpetrated by intimate partners was found in 27.5% (44) of the victims while 9.4% (15) victims were sexually assaulted by relatives (uncles, cousins, step-fathers, brother in law, grandfather and biological father). 25.6% (41) victims were sexually assaulted by strangers.

**Table 2: Characteristics of perpetrators**

Characteristics		Frequency (n)	Percentage (%)
Sex	Male	158	98.5
	Female	2	1.5
Number	One	151	93.4
	Multiple	9	6.6
Identity	Known	119	74.4
	Unknown	41	25.6
Relationship with the victim	Intimate partner	44	27.5
	Acquaintance	60	37.5
	Relative	15	9.4
	Stranger	41	25.6
Total		160	100

### **10.3 Characteristics of the sexual violence**

#### **10.3.1 Places where sexual assault took place**

Most of the sexual assaults occurred in residential homes (110; 68.8%) followed by the bush or other isolated areas (37; 23.1%). Only 2.5% (4) of sexual assaults occurred in guest houses while 3.1% (5) cases occurred in places that were not known, mainly involving children. A further 2.5% (4) cases occurred in other places like car and school toilets. See table 3.

#### **10.3.2 Time when sexual assault took place**

The majority of sexual assaults (95; 59.4%) occurred in the night, followed by those that occurred in the afternoon (47; 29.3%) at almost half the frequency of those that took place in the night. Those that took place in the morning accounted for 10% (16) while 1.3% (2) occurred at unknown times.

#### **10.3.3 Drugs given/taken by victims before sexual assault**

The majority of victims had not taken drugs prior to sexual assault (139; 86.9%). Of the 13.1% (21) who had taken drugs, 18 of them had taken alcohol (11.3%) while 3 (1.8%) took other drugs namely marijuana (2 of them) and the other one sniffed petrol.

#### **10.3.4 Loss of consciousness**

Only 3.8% (6) of the victims reportedly lost consciousness or memory before, during or after sexual assault.

#### **10.3.5 Weapon use by perpetrators before/during sexual assault**

Although sexual assault was associated with the use of physical force in adolescents and adults, the use of weapons prior to or during sexual assault was uncommon. In 93.7% (150) victims, there was no use of weapons by the perpetrators. The use of weapons to intimidate victims occurred in 6.3% (10) of the cases. The weapons commonly used were knives, screw drivers, sticks and one case of threats using a gun.

#### **10.3.6 Condom use by perpetrators during sexual assault**

The use of condoms during sexual assault was reported only in 10% of victims (16). In the majority of cases, there was no use of condoms (126; 78.8%) while in 11.2% (18) of the cases, it was not known whether condoms were used or not.

#### **10.3.7 Victims' self-protective Actions**

Almost two-thirds of victims (102; 63.8%) did nothing to protect themselves during sexual assault. About a quarter (23.8%, 38) screamed for help while 12.4% (20) fought back.

#### **10.3.8 Type of sexual act performed by perpetrators**

The majority of victims reported penile-vaginal penetration (152; 95%). Only 1 victim (0.6%) reported penile-oral penetration, while 2 victims (1.3%) reported penile-anal penetration and both were boys sodomised by male perpetrators. A combination of penile-vaginal and penile-oral penetration was reported in 2 victims (1.3%). There were reports of no penetration in 3 victims (1.9%).

#### **10.3.9 Type of examination performed on victims**

Slightly more than half of the victims (84; 52.5%) presented within 72 hours of sexual assault and had an acute examination, while slightly less than half (76; 47.5%) presented more than 72 hours of sexual assault and had a non-acute examination.

#### **10.3.10 Genital injuries**

More than two thirds of the victims (112; 70%) had presence of genital injuries such as bruises, swellings, abrasions and lacerations while 30% (48) lacked genital injuries upon examination by doctors.

**Table 3: Characteristics of the sexual violence**

<b>Characteristic</b>		<b>Frequency (n)</b>	<b>Percentage (%)</b>
Place of sexual assault	Lodge/guest house	4	2.5
	Residential home	110	68.8
	Bush/isolated area	37	23.1
	Don't know	5	3.1
	Other	4	2.5
Time of sexual assault	Morning (06-11:59)	16	10
	Afternoon (12-17:59)	47	29.3
	Night (18-06:00)	95	59.4
	Don't know	2	1.3
Drugs taken prior to sexual assault	None	139	86.9
	Alcohol	18	11.3
	Other	3	1.8
Loss of Consciousness	Yes	6	3.8
	No	154	96.3
Weapon use by perpetrator	Yes	10	6.3
	No	150	93.7
Condom use by perpetrator	Yes	16	10
	No	126	78.8
	Don't know	18	11.2
Victims' self-protective actions	Nothing	102	63.8
	Screamed for help	38	23.8
	Fought back	20	12.4
Type of sexual act	No penetration	3	1.9
	Penile-vaginal	152	95.0
	Penile-oral	1	0.6
	Penile-anal	2	1.3
	Penile-vaginal + oral	2	1.3
Type of Examination	Acute (within 72hrs)	84	52.5
	Non acute (>72hrs)	76	47.5
Genital injuries	Present	112	70.0
	Absent	48	30.0

#### 10.4 Comparison of study variables with age groups <16 and ≥ 16 years

All the relevant characteristics and variables were stratified and compared between those aged <16 and ≥ 16 years and presented in table 4. The P values <0.05 indicate those variables that were statistically less than 1 or greater than 1. Unadjusted odds ratios are subsequently presented in table 5 for selected variables.

**Table 4: Comparison of study variables with age groups <16 and ≥ 16 years**

Variable	AGE < 16 years (n = 120)		AGE ≥ 16 years (n = 40)		P-value*
	n	%	n	%	
<b>HIV Test Result</b>					
Positive	3	2.50%	9	22.50%	< 0.01
Negative	116	97.50%	31	77.50%	
<b>Place of assault</b>					
Residential home	89	74.20%	19	47.50%	< 0.01
Other	31	25.80%	21	52.50%	
<b>Time of assault</b>					
Morning	10	8.50%	6	15.00%	0.23
Afternoon	38	32.50%	8	20.00%	
Night	69	59.00%	26	65.00%	
<b>Drugs</b>					
None	110	91.70%	29	72.50%	< 0.01
Alcohol / drugs	10	8.30%	11	27.50%	
<b>Loss of conscious</b>					
No	118	98.30%	36	90.00%	0.04
Yes	2	1.70%	4	10.00%	
<b>Relationship</b>					
Intimate partner	41	34.20%	3	7.50%	< 0.01
Acquaintance	46	38.30%	14	35.00%	
Relative	12	10.00%	3	7.50%	
Stranger	21	17.50%	20	50.00%	
<b># of Perpetrators</b>					
One	116	96.70%	35	87.50%	0.04
More than one	4	3.30%	5	12.50%	
<b>Weapon use</b>					
None	114	95.00%	36	90.00%	0.27
Yes	6	5.00%	4	10.00%	
<b>Condom use</b>					
Yes	13	10.80%	3	7.50%	0.73
No/ Don't know	107	89.20%	37	92.50%	
<b>Self-protection</b>					
None	86	71.70%	15	37.50%	< 0.01
Screamed for help	28	23.30%	11	27.50%	
Fought back	6	5.00%	14	35.00%	
<b>Type of Exam</b>					
Acute	52	43.30%	31	77.50%	< 0.01
Non-acute	68	56.70%	9	22.50%	
<b>Genital Injures</b>					
Absent	24	20.00%	24	60.00%	< 0.01
Present	96	80.00%	16	40.00%	

\*Chi-square (or Fischer Exact Test if cell values <5)

### 10.5 Logistic Regression model and adjusted odds ratios

The final logistic regression model contained variables residence, HIV test result, place of incident, drugs used, self-protection, type of exam and genital injuries as independent factors significantly associated with age.

**Table 5: Logistic regression analysis results predicting age  $\geq 16$  years**

Variable	Unadjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)	p-value
<b>Residence</b>			
High density	1	1	
Low density	2.62 (0.91 - 7.56)	4.01 (0.92 - 17.57)	0.07
<b>HIV Test Result</b>			
Negative	1	1	
Positive	11.23 (2.87 - 43.98)	14.32 (2.35 - 87.22)	< 0.01
<b>Place of incident</b>			
Other	1	1	
Residential house	0.32 (0.15 - 0.66)	0.33 (0.11 - 0.98)	0.05
<b>Drugs</b>			
Alcohol / other drugs	1	1	
None	0.24 (0.09 - 0.62)	0.16 (0.04 - 0.64)	0.01
<b>Self-protection</b>			
Fought back	1	1	
None	0.08 (0.03 - 0.23)	0.06 (0.01 - 0.26)	< 0.01
Screamed for help	0.17 (0.05 - 0.55)	0.13 (0.03 - 0.63)	0.01
<b>Type of exam</b>			
Non-acute	1	1	
Acute	4.95 (2.00 - 12.23)	4.53 (1.23 - 16.73)	0.02
<b>Injuries</b>			
Present	1	1	
Absent	6.00 (2.78 - 13.02)	8.46 (2.78 - 25.77)	< 0.01

Adjusting for confounders, victims from low density areas had 4 times increased odds of being aged 16 years and above [Odds Ratio (OR) = 4.01, 95% Confidence Interval (CI) = 0.92 – 17.57), P-value = 0.07] but this was not statistically significant. Victims with a positive HIV test had 14 times increased odds of being aged 16 years and above (OR = 14.32, CI = 2.35 – 87.22, P-value < 0.01). Victims where the place of incident was

residential house had 67% reduced odds of being aged 16 years and above (OR = 0.33, CI = 0.11 – 0.98, P-value = 0.05). Victims where no drugs were used had 84% reduced odds of being aged 16 years and above (OR = 0.16, CI = 0.04 – 0.64, P-value = 0.01).

Compared to victims who fought back, victims who did not perform any kind of self-protection had 94% reduced odds of being aged 16 years and above (OR = 0.06, CI = 0.01 – 0.26, P-value < 0.01), victims who screamed for help had 87% reduced odd of being aged 16 years and above (OR = 0.13, CI = 0.03 – 0.63, P-value = 0.01). Compared to victims who reported the incident more than 72 hours (non-acute), victims who reported within 72 hours (acute) had 4.5 times increased odds of being aged 16 years and above (OR = 4.53, CI = 1.23 - 16.73, P-value = 0.02). Victims who had no genital injuries had 8 times increased odds of being aged 16 years and above (OR = 8.46, CI = 2.78 – 25.77, P-value <0.01).



## 11.0 DISCUSSION

A total number of 160 victims of sexual violence participated in the study. 101 participants were enrolled from PCOE-CSA while 59 participants from C03 ward. Victims aged less than 16 years constituted three quarters (n=120) while those aged 16 years and above constituted a quarter (n=40) of all victims. Male victims constituted 2.5% and all of them were aged less than 14 years. Half of the male victims were sexually assaulted by male perpetrators while the other half was sexually assaulted by female perpetrators. The majority of victims (n=144; 90%) resided in high density residential areas such as shanty compounds and peri-urban areas. The victims of sexual assault were found to be mostly single (93.1%). This is largely due to the fact that majority of the victims were below the age of 18 years (83.12%; 133), which is the legal age of marriage in Zambia. This finding was similar to the findings of other studies; 93.2% in Nigeria (Andeleke 2009), 90.6% in Nigeria (Ekabua 2007).

Almost half of the victims (48.1%) were either in primary school or had attained only primary school level of education (table 1). Those who were either in secondary school or had reached secondary school constituted 36.3%. None of the victims had reached tertiary level of education while 15.6% had not been to school at all. Majority of the victims as expected were unemployed (93.1%) because most of them were below 18 years of age and most Zambians are still in school or complete school by 18 years of age.

HIV test was done in almost all victims except one child whose parents declined HIV testing in the victim. 92.5% tested negative while 7.5% tested positive. A positive HIV test occurred 14 times more frequently in victims aged 16 years and above (OR = 14.32, CI = 2.35 – 87.22, P-value < 0.01). Only 10% of victims reported condom use by the perpetrators. This finding is similar to what was found in Brazil, where 83% sexual violence occurred without condom use (Marcia 2014). Condom use by perpetrators did not differ significantly between those aged below 16 years and those aged 16 years and above (p=0.75). Condom use by perpetrators commonly occurred in consensual sex involving victims younger than 16 years as well as those aged slightly above 16 years in which the sexual assault was planned by perpetrators in a home situation. The majority of victims reported penile-vaginal penetration (95%). Other forms of penetration such as oral and anal were very rare. This is similar to what was found in Brazil where crimes involving

vaginal penetration occurred in 91.9% of the cases (Marcia 2014). The low levels of condom use by the perpetrators put the majority of victims at risk of being infected with HIV and other STIs. Victims in the reproductive age group were also at risk of unwanted pregnancies as a result of this low condom use by the perpetrators, unless they had effective contraception protection independent of the perpetrators.

Most of the sexual assaults occurred in residential homes (68.8%) while 23.1% occurred in the bush or other isolated areas. In Alaska, an even higher figure was found for sexual assaults that occurred in private residences, 86% (Greg 2004). Sexual assault that took place in residential homes was significantly less common among victims aged 16 years and above compared to the ones aged below 16 years (OR=0.33, CI= 0.11 – 0.98, P-value = 0.05) while incidents that took place in isolated areas like the bush were more common in those aged 16 years and above compared to the ones aged below 16 years (52.50% versus 25.80%;  $p < 0.01$ ). This may be explained by the fact that younger victims are dependent on older people for their care and they usually stay at home where perpetrators mostly known to them pounce on them while older victims become vulnerable when they find themselves in isolated areas like the bush where strangers attack them. See table 3.

More than half (59.4%) of sexual assaults occurred in the night compared to those that took place in the afternoon (29.3%) and the morning (10%). This may be due to the fact that perpetrators who pounce on them hide in the darkness. There was no statistical difference in the times of sexual assault in victims aged below 16 years compares to those aged 16 years and above.

The majority of victims had not taken drugs prior to sexual assault (86.9%). Victims who had not taken drugs were significantly less likely to be aged 16 years and above compared to those aged below 16 years (OR = 0.16, CI = 0.04 – 0.64, P-value = 0.01). This can be explained by the fact that children younger than 16 years will not have started taking drugs yet and may not easily afford them. They are also less likely to resist sexual assault and perpetrators usually don't need to give them drugs to incapacitate them. On the other hand, victims aged 16 years and above are likely to be found in clubs and other social places where they can easily take alcohol and other drugs rendering them incapable of resistance to sexual assault or perpetrators can entice them with alcohol and other drugs to incapacitate them. Of the 13.1% who had taken drugs, majority of them had taken alcohol

while other drugs were very rare. This is in contrast to a study involving sexual assault victims in Alaska where as high as 32% of the victims were found to have taken alcohol and other drugs (Greg 2004) prior to the assault. In Brazil, Benzodiazepines were the drugs most commonly used and were identified in 82% of cases of sexual violence involving drugs ((Marcia 2014).

The majority of victims were sexually assaulted by a single perpetrator (93.4%) while 6.6% were assaulted by more than one perpetrator. Crimes perpetrated by more than one perpetrator more frequently affected victims aged 16 years and above compared to those aged below 16 years (12.50% versus 3.30%;  $p=0.04$ ). This is similar to what was found in Brazil where 8.1% victims were sexually assaulted by more than one perpetrator (Marcia 2014). Psychological sequelae may be more severe when the crime involves multiple perpetrators. It is also believed that the higher the number of perpetrators the greater the risk of transmission of STIs including HIV.

About a quarter of all victims were sexually assaulted by strangers (25.6%) while three quarters were assaulted by people known to the victims (intimate partners, friends/acquaintances & relatives). This finding is similar to what was found in USA where 68% of the victims knew their assailant (Tjaden and Thoennes, 2000) and in Nigeria where 79.6% of the victims knew their assailants (Andeleke 2009). However, another study in Nigeria found that the identity of the assailant was only known in 31.8% of the cases (Ekabua 2007). Sexual assault perpetrated by strangers affected victims aged 16 years and above more than those aged below 16 years (50.00% versus 17.50%;  $P < 0.01$ ) while incidents perpetrated by intimate partners affected victims aged below 16 years more than those aged 16 years and above (34.20% versus 7.50%;  $P < 0.01$ ). In victims aged below 16 years, the majority of sexual assaults perpetrated by intimate partners were actually consensual sexual acts but because by Zambian law, girls below the age of sixteen years are considered incapable of consenting to sex, making the act a sexual offence called defilement.

The use of weapons prior to or during sexual assault was uncommon. Weapons use occurred only in 6.3% of the cases. Weapon use occurred less frequently in victims aged below 16 years compared to those aged 16 years and above but it was not statistically significant (5.00% versus 10.00%;  $P=0.27$ ). The weapons commonly used were knives,

screw drivers, sticks and in one case, there were threats using a gun. In one Nigerian study, the use of a weapon by the perpetrators of sexual assault was found in 36.4% (Ekabua 2007).

Almost two-thirds of victims (63.8%) did nothing to protect themselves during sexual assault, 23.8% screamed for help while 12.4% fought back. Compared to victims who fought back, victims who did not perform any kind of self-protection were less likely to be aged 16 years and above (OR = 0.06, CI = 0.01 – 0.26, P-value < 0.01). This is because older victims aged 16 years and above are likely to resist the attack and even fight back compared to less powerful children. Majority of victims younger than 16 years did nothing to protect themselves because they were usually not capable of fighting back due to their young age while others consented to sexual acts but their consent was not valid by Zambian law. In USA, it was found that women's use of physically protective actions such as fighting and trying to flee was associated with lower chances of the rape being completed (Clay 2002).

About half of the victims (52.5%) presented within 72 hours of sexual assault and had an acute examination, while the other half (47.5%) presented more than 72 hours of sexual assault and had a non-acute examination. Victims who reported within 72 hours were 4.5 times more frequently aged 16 years and above (OR = 4.53, CI = 1.23 - 16.73, P-value = 0.02). This may be attributed to the fact that sexual assault against victims aged 16 years and above was mostly perpetrated by strangers so victims were eager to report to the police and health facilities early compared to victims aged below 16 years among whom perpetrators were mostly known. The delay in younger victims could be as a result of parents and guardians taking time to decide whether to report or not since the perpetrators were likely to be close friends or even relatives. The importance of the acute examination is that genital injuries are more likely to be found and it's the time in which post-exposure prophylaxis against HIV can be administered. Even though emergency contraception can be given within 120 hours of exposure, it is most effective if given within the first 72 hours of exposure.

Genital injuries were present in 70.0% of victims and absent 30.0%. The injuries were mostly bruises, swellings, abrasions and lacerations. Absence of injuries was 8 times more in victims aged 16 years and above (OR = 8.46, CI = 2.78 – 25.77, P-value < 0.01). These

findings may be due to the fact that in victims aged 16 years and above, a good number of them are likely to be sexually active reducing the chances of genital injury following sexual assault. On the other hand, victims aged below 16 years are less likely to be sexually active and a good number of them had not attained puberty, making their genital tract very susceptible to injury following sexual assault. Similar results were found in USA where genital injuries were found in 66% of sexual assault victims who had an acute examination (Biggs 1998). In Zambia and other developing countries where DNA forensic laboratories are not available, the presence of genital injuries may be the only evidence available for prosecution of sexual offences.

## **12.0 CONCLUSION**

The majority of sexual assault victims were young, single and largely unemployed, residing in high density areas. Male victims were extremely few and rape by multiple perpetrators was also very rare. A significant proportion of the cases were associated with acts of unprotected vaginal penetration, implying risk of unwanted pregnancy and STIs including HIV. Younger victims were mostly assaulted by perpetrators known to them, mainly in residential houses while older victim were mostly assaulted by strangers in isolated places. Compared to older victims, younger victims usually did nothing to protect themselves, presented more to UTH later than 72 hours following assault and sustained genital injuries more. Patterns of sexual assault are therefore different in younger victims compared to adults.

## **13.0 STUDY LIMITATIONS**

Because UTH was the only site for this study, it is possible that the patterns could be different in a rural setting.

## **14.0 RECOMMENDATIONS**

1. To the Media: increase reporting and awareness on Gender based Violence. The community must be sensitized on the risks of being a sexual assault victim and measures to try and reduce this risk. Sensitization must also include the importance of reporting to the health facilities quickly after sexual assault for the evidence to be collected and preventive treatments offered such as emergency contraception and post-exposure prophylaxis against HIV.
2. To government: to set up One Stop Centers to care for survivors of GBV at all hospitals or at least in every district of the country and to speed up the setting up of the Forensic/Crime lab in Lusaka which will increase the level of evidence considering that only 70% of victims were found to have presence of genital injuries during examination.
3. Further studies to include follow up of sexual assault victims for complications such as STIs and pregnancy.
4. A further larger study to include the rural areas of Zambia.

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## **APPENDICES**

### **16.0.1 APPENDIX I**

#### **Participant information sheet**

#### **“A Cross Sectional study of the patterns of Sexual Assault Victims presenting to the University Teaching Hospital, Lusaka”**

Principal Investigator: Dr Eugene Kaunda.

Dear Participant,

I am Dr. Eugene Kaunda, a postgraduate student at the University of Zambia. I invite you to participate in this study which is part of the requirement for the award of a Master of Medicine Degree that I am pursuing.

The study is looking at patterns of sexual assault victims presenting to UTH. You have been chosen in this study because you meet the criteria for inclusion. Research assistants will interview you and will get other information from your medical records and files. The findings of this study will help us in identifying patterns of sexual assault victims. We are doing this research study because the information we will get from it can be used to design programmes aimed at reducing cases of sexual assault among women and children. There are no monetary or material benefits in being part of our study. We will not interfere in the way the doctors and other healthcare providers have planned to take care of you. The study will not in any way influence the plan of care your health care providers and other service providers have for you. You are free to withdraw from the study at any time if you feel so.

The information we will have about you will not be shared with anyone. The study will ensure strict confidentiality and will not reveal any information related to any individual participant to anyone.

We will ask you a few questions and note some information from your file. If you agree to take part, please sign or put your right thumb print on the consent form.

If you have any questions or clarification concerning this study, please contact any of the people below:

The Principal Investigator,  
University Teaching Hospital,  
Dept. of Obstetrics & Gynaecology,  
P/B RW 1X,  
LUSAKA.  
Phone: 0977523551

OR

The Chairman,  
UNZABREC,  
Ridgeway Campus,  
P O Box 50110,  
LUSAKA  
Tel: 260-1-256067

## **Participant Consent Form**

### **A Cross Sectional study on the patterns of Sexual Assault Victims presenting to UTH.**

I understand all that has been explained to me as above and it is clear to me what this study is all about and so I voluntarily consent to take part in the study. I also understand that I am free to withdraw at any time without giving any reason and without my medical care or legal rights being affected. I agree to participate in the study on my own without coercion.

Name of participant/parent/ guardian -----

Signature/ Right thumb print -----Date -----

Witness Name ..... (In case of verbal consent)

Signature..... Date .....

## **Assent form for children aged between 7 and 18 years**

### **A Cross Sectional study on the patterns of Sexual Assault Victims presenting to UTH.**

I understand all that has been explained to me as above and it is clear to me what this study is all about and so I voluntarily assent to the consent given by my parent/guardian to take part in the study. I also understand that I am free to withdraw at any time without giving any reason and without my medical care or legal rights being affected.

Name of Child -----

Signature/ Right thumb print -----Date -----

## 16.0.2 Appendix II

### Questionnaire

#### A Cross Sectional Study on the patterns of sexual assault victims presenting to UTH.

Participant ID \_\_\_\_\_ Date: \_\_\_\_\_

Time reported to C03 ward or Paediatric One Stop Centre .....

Please tick or enter in the appropriate space.

#### Part 1 (Socio-economic and Demographic information)

1. Age (in years after last birthday).....

2. Sex of Victim

1. Male ( )

2. Female ( )

3. Marital Status of victim

1. Single ( )

2. Married ( )

3. Widowed ( )

4. Divorced ( )

5. Separated ( )

6. Other (Specify) -----

**4. Current or Highest level of education Attained by victim**

- 1. None ( )
- 2. Primary ( )
- 3. Secondary ( )
- 4. Tertiary ( )

**5. Victim's occupation Type**

- 1. Unemployed ( )
- 2. Formal Employment ( )
- 3. Informal Employment ( )
- 4. Other (Specify) -----

**6. Religion of victim**

- 1. Christian ( )
- 2. Muslim ( )
- 3. Hindu ( )
- 4. Other (Specify).....

**7. Residential Area of victim.....(write name of area/compound)**

**8. Victim HIV test result (from file)**

- 1. Positive ( )
- 2. Negative ( )
- 3. Declined test ( )

## **Part 2 (Sexual Assault Data)**

### **9. Place where sexual assault took Place**

1. Hotel/ Lodge/ Guesthouse (   )
2. Residential home (   )
3. Nightclub/ Bar/ pub (   )
4. Bush/ Isolated area (   )
5. Don't know (   )
6. Other (Specify).....

### **10. Time Elapsed since sexual assault took place**

**(Date & Time of sexual assault.....)**

1. Within 24 hours (   )
2. 24 – 48 hours (   )
3. 48 – 72 hours (   )
4. More than 72 hours (   )

### **11. Time when sexual assault took place**

1. Morning (approx.. 6am-11:59 am) (   )
2. Afternoon (approx.. 12pm-5:59pm) (   )
3. Night (6pm-6am) (   )

### **12. Had victim taken or given alcohol/ other drugs at the time of sexual assault?**

1. Yes (   )
2. No (   )

If yes name the drug(s) including alcohol.....



**13. Had Victim lost consciousness or memory during or after sexual assault?**

- 1. Yes (    )
- 2. No (    )
- 3. Don't know (    )

**14. How many people sexually assaulted the victim? ..... (Actual number if > 1)**

- 1. One (    )
- 2. More than one (    )

**15. What is the relationship of the victim to the perpetrator (s)?**

- 1. Intimate partner (    )
- 2. Former intimate partner (    )
- 3. Friend/ Acquaintance (    )
- 4. Relative (    )
- 5. Stranger (    )
- 6. Other (Specify).....

**16. Did the perpetrator(s) use any weapon before or during sexual assault?**

- 1. Yes (    )
- 2. No (    )
- 3. Don't know (    )

If Yes, (Name the weapon).....

**17. What type of penetration took place?**

1. No penetration (    )
2. Vaginal/penile penetration (    )
3. Oral penetration (    )
4. Anal penetration (    )
5. Vaginal/penile + other (    )

**18. Did the perpetrator use a condom during sexual assault?**

1. Yes (    )
2. No (    )
3. Don't know (    )

**19. What did the victim do to protect herself/himself from sexual assault?**

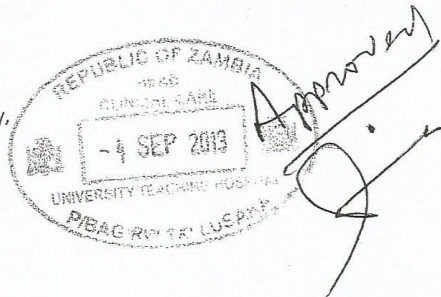
1. Nothing (    )
2. Screamed for help (    )
3. Fought back (    )
5. Other action (Specify).....

**20. Genital injury/injuries present? (From file).**

1. Yes (    )
2. No (    )

### 16.0.4 Appendix III

University of Zambia,  
School of Medicine,  
Department of Obstetrics and Gynecology,  
P.O Box 50110,  
Lusaka.  
2<sup>nd</sup> September, 2013.



The senior Medical Superintendent,  
UNIVERSITY Teaching Hospital,  
P/B RW 1X  
Lusaka.

Dear Sir,

**RE: PERMISSION TO CONDUCT RESEARCH IN THE DEPARTMENT OF PAEDIATRICS AND OBSTETRICS AND GYNECOLOGY AT UTH**

I hereby apply to conduct a research entitled "A Cross-Sectional Study on the patterns of Sexual Assault victims presenting to UTH"

The research which is intended to be conducted at C03 gynae ward and Paediatric one stop Centre is for a Master of Medicine degree in Obstetrics and Gynecology which am pursuing with the University of Zambia. Data collection will be in form of an interviewer administered questionnaire while some information will be extracted from the patients' files. Attached is a letter of clearance from the graduate forum.

Looking forward to your favorable response.

Yours faithfully

  
Dr. Eugene Kaunda

## 16.0.5 Appendix IV



**THE UNIVERSITY OF ZAMBIA**  
**SCHOOL OF MEDICINE**

Telephone: 252641  
Telegram: UNZA, Lusaka  
Telex: UNZALU ZA 44370  
Email: selestinenzala@yahoo.com

P.O. Box 50110  
Lusaka, Zambia

=====

03<sup>rd</sup> September, 2013

Dr. Eugene Kaunda  
Department of Obstetrics & Gynaecology  
School of Medicine  
**LUSAKA**

Dear Dr. Kaunda,

**RE: GRADUATES PROPOSAL PRESENTATION FORUM (GPPF)**

Having assessed your dissertation entitled **"A cross Sectional Study of Patterns of Sexual Assault Victims presenting to the University Teaching Hospital (UTH), Lusaka"**, We are satisfied that all the corrections to your research proposal have been done. The proposal meets the standard as laid down by the Board of Graduate Studies.

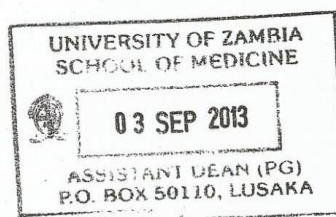
You can proceed and present to the Research Ethics.

Yours faithfully,

A handwritten signature in dark ink, appearing to read 'S.H. Nzala'.

Dr. S.H. Nzala  
**ASSISTANT DEAN, POSTGRADUATE**

CC: HOD – Obs & Gynae



## 16.0.5 Appendix V



### THE UNIVERSITY OF ZAMBIA

#### BIOMEDICAL RESEARCH ETHICS COMMITTEE

Telephone: 260-1-256067  
Telegrams: UNZA, LUSAKA  
Telex: UNZALU ZA 44370  
Fax: + 260-1-250753  
E-mail: unzarec@unza.zm  
Assurance No. FWA00000338  
IRB00001131 of IORG0000774

Ridgeway Campus  
P.O. Box 50110  
Lusaka, Zambia

5<sup>th</sup> December, 2013.

Your Ref: 004-09-13.

Dr. Eugene Kaunda,  
School of Medicine,  
Department of Obstetrics and Gynaecology,  
P.O Box 50110,  
Lusaka.

Dear Dr. Kaunda,

RE: RE-SUBMITTED RESEARCH PROPOSAL: "A CROSS SECTIONAL STUDY OF PATTERNS OF SEXUAL ASSAULT VICTIMS PRESENTING TO THE UNIVERSITY TEACHING HOSPITAL (UTH), LUSAKA" (REF. No. 004-09-13)

The above mentioned research proposal was re-submitted to the Biomedical Research Ethics Committee with recommended changes on 22<sup>nd</sup> November, 2013. The proposal is approved.

#### CONDITIONS:

- This approval is based strictly on your submitted proposal. Should there be need for you to modify or change the study design or methodology, you will need to seek clearance from the Research Ethics Committee.
- If you have need for further clarification please consult this office. Please note that it is mandatory that you submit a detailed progress report of your study to this Committee every six months and a final copy of your report at the end of the study.
- Any serious adverse events must be reported at once to this Committee.
- Please note that when your approval expires you may need to request for renewal. The request should be accompanied by a Progress Report (Progress Report Forms can be obtained from the Secretariat).
- **Ensure that a final copy of the results is submitted to this Committee.**

Yours sincerely,

  
Dr. J.C Munthali  
CHAIRPERSON

Date of approval: 5<sup>th</sup> December, 2013.

Date of expiry: 4<sup>th</sup> December, 2014.