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ANALYSIS OF THE PROFILE OF PATIENTS PRESENTING WITH SEXUAL ASSAULT AT LERATONG HOSPITAL CRISIS CENTRE, KRUGERSDORP, SOUTH AFRICA, IN 2014

Akintunde Olayiwola

Research report submitted to the Faculty of Health Sciences

at the University of the Witwatersrand

in partial fulfilment of the requirements for the degree of

Master in Family Medicine

Supervisors: Dr Elizabeth Reji

and

Dr John MM Musonda

January 2019

DECLARATION

I, Akintunde Olayiwola, declare that this research is my personal work. It has been submitted in partial fulfilment of the requirements for the degree of Master in Family Medicine at the University of the Witwatersrand, Johannesburg. The same work has not been submitted before for any degree or examination at this or any other university.

Candidate's signature:

Student number: 699555

Submitted this 14th day of January 2019 in Johannesburg, Republic of South Africa.

DEDICATION

In loving memory of my dear parents,

Mrs Mojereola Anifat Asafa-Olayiwola

and Alhaji Abidemi Olasunkami Olayiwola,

May the Almighty grant them eternal rest in peace.

ABSTRACT

Background: The global prevalence of rape in women is 7.2%, and in Sub-Saharan Africa 21%. In South Africa, rape or sexual assault (a form of inter-personal violence) is defined as a person committing an unlawful, intentional act of sexual penetration without the consent of the complainant. Sexual assault damages the physical, sexual, emotional, mental and social wellbeing of individuals and families. Hence it is a big public health hazard.

Aim: To explore the characteristics of patients who presented for sexual assault counselling in Leratong Hospital, Krugersdorp, Gauteng, South Africa, from January to December 2014.

Methodology: A retrospective, cross-sectional study was undertaken by reviewing the files of 501 patients who fulfilled the inclusion criteria. All the files of the patients who presented to a secondary level hospital in Krugersdorp, South Africa from January to December 2014 were collected and analysed.

Results: The mean age of the sexual assault patients was 21.5 years. The majority of participants were black (92.4%), female (96%), single (95.4%), unemployed (83.8%), and Tswana-speaking (42.3%), who had a school education (27.6%) and lived in Mogale city (51.7%). Fifty eight percent of the participants reported that sexual assault had taken place between a Friday and a Sunday, between 18.00 to 05.59 hours. Participants older than 20 years were three times more susceptible to sexual assault at night ($p = 0.00$). Young participants were sexually assaulted more frequently at the perpetrator's place ($p = 0.01$), and at party venues or in cars ($p = 0.01$). Chi2 and logistic regression analysis were used to determine the association between the patients' socio-demographic factors and sexual assault characteristics.

Conclusion and recommendation: Health workers should play a leading role and coordinate inter-sectorial initiatives involving the department of education and public safety in educating the identified vulnerable groups. Safety and security officials especially the police should consider the identified risk factors for sexual assault and effect targeted interventions.

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I give thanks to the Almighty who makes all things possible and without whom all our human endeavours would be in vain.

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ABBREVIATIONS

HCW: Health Care Worker

HIV: Human Immunodeficiency Virus

HREC: Human Research Ethics Committee

IPV: Intimate Partner Violence

NGOs: Non-Governmental Organisations

NHRD: National Health Research Database

PEP: Post Exposure Prophylaxis

SAPS: South African Police Service

STATS SA: Statistics South Africa

STI: Sexually Transmitted Infection

WHO: World Health Organisation

CHAPTER 1: INTRODUCTION

1.1 Background

Sexual assault and rape are big public health problems worldwide, but only in the recent past have they received the attention and prominence they deserve. Sexual assault and rape are categorised by the World Health Organisation (WHO) as a form of inter-personal violence that damages the physical, sexual, emotional, mental and social wellbeing of individuals and families.[1]

As recently as 2014, the global prevalence of rape in women was 7.2%, and was estimated at 21% in Sub-Saharan Africa.[2] Different countries have different legal definitions for rape, but in South Africa, rape is defined as occurring when a person commits an unlawful, intentional act of sexual penetration without the consent of the complainant.[3]

In their continuing global efforts to fight the scourge of Intimate Partner Violence (IPV), sexual assault and rape, the WHO published a document in 2012 in which it was categorically stated that primary prevention should be the starting point of any strategies aimed at the prevention of this serious social problem. The WHO recommendation was that emphasis be placed on the need to prevent the occurrence of these social ills in the first instance (primary prevention), rather than grappling with the physical and medical consequences on the patients and their families (secondary prevention), or the frequently unpredictable attempts of rehabilitation to lessen the long-term effects of the violence (tertiary prevention).[1]

There is a continuous worldwide collection and presentation of data on the prevalence of rape and sexual assault, and locally in South Africa, there has also been a lot of work done on the statistical figures of rape, mostly gathered by individual researchers and private agencies, but also by government agencies such as the South African Police Service (SAPS) and Statistics South Africa (STATS SA).

1.2 Motivating factors for the research/ Rationale

During the time spent working in the Crisis Centre of Leratong Hospital in Krugersdorp, west of Johannesburg, the researcher observed that a sizeable number of the sexual assault victims reporting to this hospital were children, especially between the ages of 14 to 17 years.

In other categories of patients reporting sexual assault, it was observed that there seemed to be a close association between alcohol consumption in public places and sexual assaults

mainly at night or in the early hours, in often unmarried, poorly educated young women. Furthermore, most of this type of sexual assault took place around the weekend, especially around month-end or pay-day, and they usually took place in or close to open fields or deserted/lonely pathways. More often than not, there was also use of a weapon by the perpetrator to threaten the victim, and on quite a few occasions there was more than one perpetrator.

In addition to the above, there were many cases of children less than 5 years old that were brought to the hospital on suspicion of sexual assault or molestation, as well as the occasional report of sexual assault in an elderly female, or a young male.

There has been hardly any research work done on sexual assault in the West Rand Health District according to the researcher. Data collected in the hospital was mainly on patients' demographics and only presented amongst staff. This encouraged the researcher to make the decision to do this work as it would not only to serve as a guide to the district in precisely identifying the population vulnerable to sexual assault and rape, but also to create more awareness in the district. It should also help the police in the surveillance of and prompt arrest of would-be perpetrators, and serve as a template for future similar research in the district.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

In this chapter, previous similar works on sexual assault are reviewed. Articles were selected based on their relevance to the research objectives and search engines such as Medscape, Scopus, PubMed and Google scholar were employed, as well as checking the references of the articles so included. Efforts were made to exclude articles older than 5 years except when they were considered to be very relevant to the research objectives.

In 2005, the United Nations released a report collated from 65 of its member countries, in which it was highlighted that over 250,000 cases of attempted or completed rape were reported annually to the police[4]. More recently, in South Africa in 2010, over 68,000 rape cases were reported to the South African Police Service (SAPS), suggesting that one rape occurred in South Africa every 35 seconds.[5, 6] These raw figures showed the extent of the occurrence of this social scourge, and also proved that it should not be overlooked in the planning and execution of important health policies or projects.

2.2 Demographics of the sexual assault patients

Studies done internationally showed that these patients were usually females of less than 25 years of age,[7] while findings in the South African context more specifically identified that women were at the highest risk of rape between the ages of 19 and 24 years.[8]

A WHO study had indicated that women with primary or no education were two times more likely to experience sexual assault from a non-intimate partner compared to a woman who attained educational level of secondary or higher[1], while a South African study suggested that the rape risk increased two- to five-fold in women of low education levels compared to their more educationally advanced counterparts.[9]

2.3 Assault characteristics

2.3.1 Relationship between the victim and the perpetrator

Studies in the United States show that females were raped by strangers in 16.7% of cases and by a current or former partner in 43% of cases.[10] However, a study done across three provinces in South Africa (the so-called *Three province study*), found that rape was

perpetrated by strangers in 42.5% of cases; by an acquaintance (20.8%); by someone from school (9.4%); by a relative, (7.5%); by a partner (11.3%); and by others.[11] Another South African study ascertained that 18.8% of adult women were raped by their current or former intimate male partner.[12]

Similarly, a study done on pregnant women in Soweto (a township of the city of Johannesburg), found that 7.9% of the participants were raped by non-partners.[13]

2.3.2 Alcohol (and drugs) play a big role

From research done outside South Africa, it was found that approximately half of all cases of sexual assault involve alcohol consumption by the victim, the perpetrator, or both parties.[14] Furthermore, the vulnerability to sexual assault was found to be greatly increased after drinking, and it is therefore not surprising that most sexual assaults were linked to alcohol abuse. It is commonly accepted that there is a high degree of correlation between alcohol intoxication and the risk for being sexually assaulted.[15] Men who engage in sexual assault were often found to describe women who consume alcohol as "loose and immoral", and therefore considered them appropriate targets for sexual aggression. Thus, women who consume alcohol were frequently seen by perpetrators as being more sexually available, or promiscuous, in comparison to their non-drinking counterparts.[16]

The Crime Research and Statistics component of Crime Intelligence of the SAPS released a report covering one decade, which confirmed that in the majority of contact crimes (including sexual assault/rape), alcohol, and to a lesser extent drug abuse, usually played a role.[17] In the South African context, alcohol was found to be an important factor and was mentioned not only in nearly half of all gang rapes, but also in a third of all girlfriend, acquaintance or stranger rapes.[8]

The capturing and reporting on sexual assault/offences and rape data is a continuous process by both government and non-governmental agencies in South Africa. Some of these reports on sexual assault and rape went as far as revealing details pertaining to the perspectives of both the perpetrators and victims, as well as other associated factors usually arising during the assault.[6, 7, 18]

2.3.3 Time and days on which rape occurs

In South Africa, rape is well known to occur often over weekends, particularly on Saturdays.[6] In 2011, STATS SA gave a raw breakdown, which confirmed that the highest proportion of

rape cases occurred on Saturdays (23. 2%), followed by Sundays (20.3%) while the smallest number of cases were reported on Tuesdays (6.3%) and Wednesdays (5.4%).[8] The same report showed that rapes occur in the evenings, especially after 18h00.[8]

2.3.4 The most common locations of sexual assaults

Findings in North America showed that rapes usually occur indoors,[10, 19, 20] but research done in the city of Durban, South Africa in 1995 found that rape usually occurred more in public places.[8] In a STATS SA survey of 2011, it was confirmed that most rapes in South Africa take place outdoors.[8] The survey showed that slightly more than one third (33.6%) occurred in parks or in a field, and 15.2% occurred in the streets outside offices or shops.[8]

2.3.5 Perpetrators' use of weapons

Although South African data shows that 88,1% of sexual assaults/rapes are carried out by a single perpetrator; however, when it involves two or more perpetrators, it also involves the use of a weapon in 87.2% of all cases. Among those using weapons, 68.0% used knives or other sharp objects to threaten their victims, while 16.5% used guns and 5.9% used other kinds of objects.[7] It is also documented that most gang rapes are not only perpetrated by strangers, but also feature a high rate of use of weapon(s) in the attack.[8]

2.3.6 Sexual assault and rape of males

Despite the fact that it is generally known that most rape and sexual assault of women in South Africa occur at the hands of men, the incidence of male rape in the country is often overlooked. Male rape was thought to be common in prisons and juvenile correctional services centres but often went unreported, as victims were usually threatened by the perpetrators.[21] Statistical data shows that one in thirty men (approximately 3.5%) in the Republic of South Africa were raped by another man, and that about one in ten (10%) South African men have been subjected to varying forms of sexual abuse by another man.[21]

2.3.7 Sexual assault and rape of children

A study done in Gauteng province of South Africa in 2003 confirmed that girls under 12 years of age were likely to be raped by someone they knew, with 84% of these cases perpetrated by relatives, friends or neighbours. For girls aged 12-17 years, 57% of rapes were perpetrated by someone they knew compared to adult women where it was reported as 52% of cases.[22, 23]

2.3.8 Knowledge about the perpetrator

To a large extent, sexual assault or rape in South Africa has been reported as being perpetrated as a form of recreation, either by men looking for fun from boredom or as a kind of game.[9] It has also been revealed that most reported cases of sexual assault of women were committed by strangers, and this submission was supported by STATS SA.[7, 8]

After considering the identified demographic features of victims as shown above, as well as the associating factors, the researcher wished to determine whether the same characteristics were applicable to the sexual assault patients who presented in the Leratong Hospital in the West Rand Health District of Johannesburg in 2014. This hospital had not collected any official data in terms of research into the profile of these patients.

In summary, many studies both internationally and within South Africa have identified the socio-demographic and sexual assault characteristics of victims, but there has not been any work done on this subject in the western parts of Johannesburg.

2.4 Research question

What are the characteristics of patients who presented for sexual assault counselling in Leratong Hospital Crisis Centre from January 2014 to December 2014?

2.5 Aim

To explore the characteristics of patients who presented for sexual assault counselling in Leratong Hospital, Krugersdorp from January to December 2014.

2.6 Objectives

- To describe the socio-demographics of patients who presented for sexual assault counselling.
- To determine the sexual assault characteristics of patients who presented for counselling.
- To determine the relationship between the sexual assault characteristics and the socio-demographics of patients who presented for counselling.

CHAPTER 3: METHODOLOGY

3.1 Study design

The study applied a cross-sectional descriptive design using a retrospective review of medical records of patients who presented for sexual assault counselling at Leratong Hospital.

3.2 Study period

The study time frame was from January to December 2014.

3.3 Study site

The study was carried out at the Crisis Centre in Leratong Hospital, which is a Level 2 provincial hospital located in Chamdor, Krugersdorp, in the West Rand Health District of Johannesburg. The hospital delivers health services to people in and around this area, which comprises urban, semi-urban and semi-rural areas, and with occupation mainly in the farming and mining sectors. The hospital has 800 beds of which 755 were in use at the time, and a catchment area of over 800,000 people, mainly lower-income and middle-class citizens.

According to Census 2011, the total population of the four municipalities that constitute the West Rand District of Johannesburg was 820,995 people.[24] Most of the cases of sexual assault within the above catchment area were attended to at Leratong Hospital Crisis Centre, a fully functional unit with a doctor on duty 24 hours of every day, in addition to lay counsellors and nurse clinicians.

3.4 Study population

The study population included the medical records of all patients who presented for sexual assault counselling at the Crisis Centre of Leratong Hospital in 2014. The total number of reported new cases of sexual assault at the Crisis Centre from January to December 2014 was 755. Once the inclusion and exclusion criteria were applied, 501 participants were enrolled in the study.

3.5 Study sampling and size

The study sample conveniently included all the medical records of patients who sought help at Leratong Hospital Crisis Centre in 2014.

3.6 Inclusion criteria

- Medical records of patients who presented with sexual assault to the Crisis Centre from January to December 2014.

3.7 Exclusion criteria

- Files with completely illegible handwriting.
- Files with 50% uncompleted data.
- Files opened for suspicion of sexual abuse.

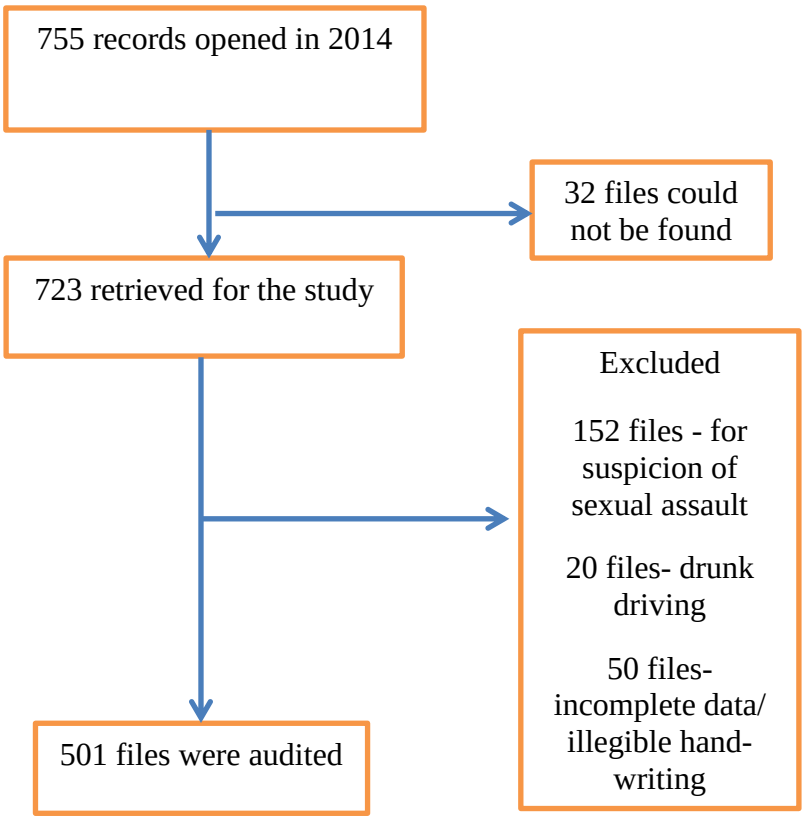


Figure 3.1: Flow chart showing selection of files for the study

3.8 Measuring tool/ instrument

The researcher made use of a data capture sheet (see Annexure 1, p.48) and this was developed from:

- The data collection tool used by lay counsellors in Leratong Hospital to collect the socio-demographic and the sexual assault data. (See Annexure 6 on page 54, "Counsellor Report form").
- The key findings from the literature reviewed by the researcher for this study.

The first part of the data capture sheet (sections 1-9) collected the socio-demographic information of the patient including age, gender, race, home language, marital status, educational level, employment status and place of residence. The second part (10-17) collected the characteristics of the sexual assault incident and these included day of the assault, time of the assault, day and time of requesting for help, place of assault, perpetrator knowledge, use/type of weapon, injuries sustained by patient, to whom did the patient first speak to after the incidence. The third part of the data capture sheet collected data from section 2.3 of the lay counsellor's form (i.e. Annexure 6). Information from the counsellors' summaries was coded into themes by the researcher. This section was expected to supply information on the number of perpetrators, perpetrator strategy, alcohol consumption in the patient immediately prior to sexual assault, and condom use.

3.9 Data collection

The researcher worked in the Crisis Centre while collecting data from the records. The Crisis Centre has its own independent filing room and system, and the Records keeper assisted with the retrieval of the medical records for the one-year period of the study. The researcher then reviewed all these files and included only those that met the study criteria.

Each medical record audited was given a code number and sticker to avoid auditing duplication of any file selected for the study. The completed data capture sheet was then stored in the researcher's home in a locked cabinet. The collected data was subsequently transferred to a computer where it was password-protected, confirming that only the researcher had access to the information and thus guaranteeing the confidentiality of the medical records.

3.10 Data analysis

Data was extracted from the data capture sheets onto MS-Excel Spread Sheets and subsequently transferred to and analysed by STATA 12. Categorical variables were analysed, and the results were presented as frequencies and percentages. Continuous variables were presented as mean, standard deviation, and range. Associations between socio-demographic and sexual assault features were determined using chi^2 and logistic regression. Statistical significance used in this study was set at p-value of 0.05 with CI of 95%.

3.11 Ethical considerations

- Permission to conduct this research was sought from four sources:
    1. From the Director of West Rand Health District (see Annexure 2, page 49).
    2. From the CEO of Leratong Hospital (see Annexure 3, page 50).
    3. The National Health Research Database (NHRD) (See Annexure 4, page 51).
    4. From the Human Research Ethics Committee (HREC) of the University of the Witwatersrand (see Annexure 5, page 52).
- The study was a retrospective descriptive review of patients' medical records and therefore there was no need to obtain consent from the patients.
- To maintain confidentiality, the information on each completed data capture sheet was made anonymous, and the computed data was password protected by the researcher.

3.12 Conflict of interest/funding

There were no conflicts of interest before, during or after this research. The research was funded entirely by the researcher.

CHAPTER 4: RESULTS

This chapter discusses the findings from the review of the records of the patients who attended the Crisis Centre of Leratong Hospital from 1 January to 31 December 2014.

4.1 Socio-demographic features of the participants

Table 1: Age of the participants

Age (years)	Frequency (n=501)	Percentage (%)
0-10	74	14.77
11-20	211	42.12
21+	216	43.11

The mean age of the participants was 21.5 ± 12.3 years. The most common age group was those younger than 21 years (56.9%, n=285). The majority of the study participants were female (96%, n=481). The lowest age was 2 while the highest age was 72 years.

Table 2: Race of the participants

Race	Frequency (n=501)	Percentage (%)
Black	463	92.4
Caucasian	26	5.2
Coloured	11	2.2
Indian	1	0.2

Most of the participants were black Africans, accounting for 92.4% of all participants (n=463).

Table 3: First language of the participants

Language	Frequency (n=501)	Percentage (%)
Tswana	212	42.3
Xhosa	90	18.0
Zulu	67	13.3
Sotho	40	8.0
Afrikaans	35	7.0
Other	57	11.4

Table 3 above illustrates the first languages of the study participants. The most common language spoken by the participants was Tswana, while those categorised as "other" included languages spoken by people who were not originally from South Africa.

Table 4: Marital status of the participants

Marital status	Frequency (n=501)	Percentage (%)
Single	472	94.2
Married	23	4.6
Divorced	4	0.8
Widowed	1	0.2
Co-habiting	1	0.2

Ninety-four percent of the participants were single. However, this figure included all children/minors enrolled in the study.

Table 5: Educational level of the participants

Educational level	Frequency (n=501)	Percentage (%)
None	2	0.4
Pre-school	17	3.3
Primary	35	7.0
Secondary	98	19.6

Post-matric	5	1.00
Not specified	344	68.7

More than two-thirds of the participants did not have their educational level documented in their files (68.7%, n=344), while 22% (n=103) were recorded as students who had attained high school education or higher.

Table 6: Employment status

Employment status	**Frequency (n=501)**	**Percentage (%)**
Unemployed	420	84%
Employed	21	16%

Unemployed participants constituted 84% of the participants (n=420).

Table 7: Residence of the participants

Residence	**Frequency (n=501)**	**Percentage (%)**
Mogale City	259	51.7
Merafong sub-district	3	0.6
Randfontein	88	17.6
Westonaria	112	22.3
Outside the West Rand	39	7.8

Just over half of all the study participants (51.7%) lived in Mogale City alone. There were 39 participants who came from outside of West Rand Health District.

4.2 Sexual assault characteristics

Table 8: Day that sexual assault took place

Day of the week when the sexual assault took	Frequency (n=501)	Percentage (%)
Sunday	105	20.96
Monday	47	9.38
Tuesday	41	8.18
Wednesday	45	8.98
Thursday	38	7.58
Friday	71	14.17
Saturday	114	22.75
Not specified	40	7.98

Fifty-eight per cent (n=290) of the participants reported that the sexual assault took place between Fridays to Sundays. Table 4.2.1 shows that there was a decline of reported sexual assaults during week days, with Thursday having the lowest number (i.e. 7.6%, n=38).

Table 9: Time of sexual assault

Time of sexual assault	Frequency (n=501)	Percentage (%)
00h00-05h59	143	28.54
06h00-11h59	45	8.98
12h00-17h59	68	13.57
18h00-23h59	144	28.74
Time not specified	101	20.16

Fifty-seven percent (n=287) of the participants reported that the sexual assault took place between 18h00 and 05h59. The least likely time for occurrence of sexual assault was between 6am to midday.

Table 10: Day when help was sought

Day of the week on which request for help was made	Frequency (n=501)	Percentage (%)
Sunday	133	26.55
Monday	59	11.78
Tuesday	57	11.38
Wednesday	70	13.97
Thursday	48	9.58
Friday	53	10.58
Saturday	81	16.17

Almost twenty-seven per cent (n=133) of the participants had requested help on Sundays, followed by Saturdays (16%, n=81).

Table 11: Duration before seeking for help

Time taken before seeking for help	Frequency (n=501)	Percentage (%)
Within 24 hours	312	62.28
Between 24-48 hours	64	12.77
Between 48- 72 hours	33	6.59
Between 3-7days	45	8.98
Between 7days to 1 month	11	2.20
More than 1 month	14	2.79
Unknown	22	4.39

Sixty-two per cent (n=312) of the participants sought help within 24 hours of sexual assault, and this percentage increased to 82% (n=409) when including those who arrived at the hospital within 72hours. It was noted that 14%, n=70 presented for help after more than 72 hours had elapsed after the incident. Those categorised as “unknown” included children who were unable to give a reliable day/date of the sexual assault incidence.

Table 12: Sexual assault location

Place where the sexual assault took place	Frequency (n=501)	Percentage (%)
Open field	175	34.93
Perpetrator's place	165	32.93
Victim's place	97	19.36
Other- (inside a car, inside an uncompleted/abandoned building/shack, detention facility or at a party venue)	53	10.58
School	6	1.20
Near tavern/shop	5	1.00

The most common site reported for sexual assault to take place was the open field site, followed by the perpetrator's place, while the tavern/shop or school premises were noted to be the least likely sites for sexual assault to occur in the West Rand District in 2014.

Table 13: Type of weapon used

Type of weapon used during the sexual assault	Frequency (n=123)	Percentage (%)
Knife	67	54.5
Gun	38	30.9
Other (screw-drivers, beer bottle, sjambok)	18	14.6

The use of weapon by the perpetrator before or while sexually assaulting the participant was 54.5% (n=67) of all cases in which a weapon was used. The weapon of choice was a knife. No weapon was used in 75.4% (n=501).

Table 14: Individual first spoken to by the victim after the assault

To whom did the victim first speak after the sexual assault	Frequency (n=501)	Percentage (%)
SAPS	236	47.0
Mother	95	19.0
Friend/teacher/pastor/colleague	66	13.2
Other family	61	12.2
Neighbour	21	4.2
Husband/boyfriend	14	2.8
Stranger	5	1.00
Health care worker	3	0.60

Forty-seven percent of the participants first reported to the SAPS (n =236), followed by 19% (n =95) who reported to their mother about the sexual assault. Surprisingly, only 0.6% (n=3) reported first to a health care worker.

4.3 Sexual assault perpetrator's characteristics

Table 15: Number of perpetrators

Number of perpetrators that were involved in the sexual assault	Frequency (n=501)	Percentage (%)
One	396	79.0
Two	58	11.6
Three	30	6.0
Four or more	17	3.4

A majority of the patients were sexually assaulted by a single perpetrator (79%, n=396).

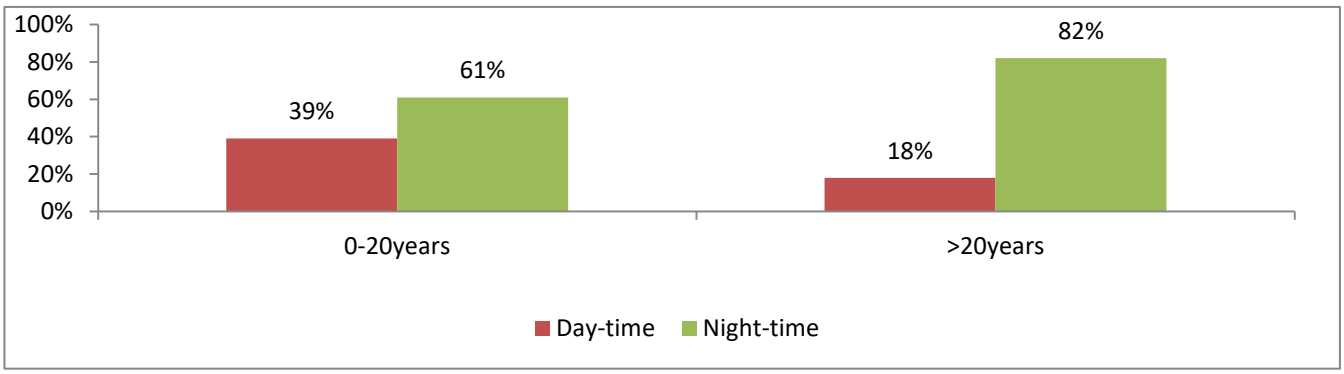
Table 16: Perpetrators' strategy

Perpetrator strategy during the sexual assault	Frequency (n=501)	Percentage (%)
Physical force	252	50.3
Threat to kill/harm	132	26.3
Cajoling	6	1.2
Deception	103	20.6
Drink spiking	8	1.6

Half of all the participants reported that physical force was used by the perpetrator, followed by the threat to kill, or cause bodily harm in 26.3% (n=132).

4.4 Relationship between the socio-demographic features of the participants and the sexual assault characteristics

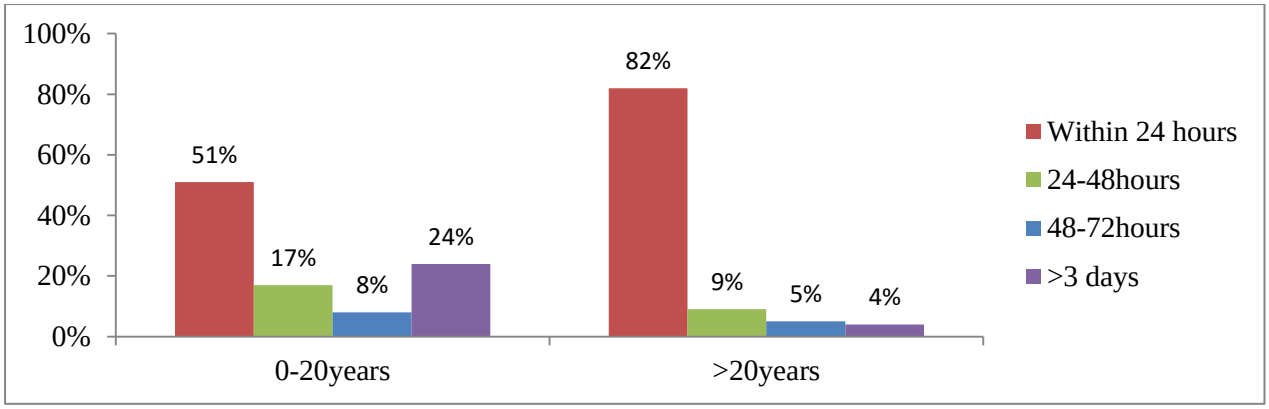
4.4.1 Participant age groups versus sexual assault characteristics



Chi2 (1) = 20.71 p-value = 0.00

Figure 1: Participant age groups versus time of sexual assault

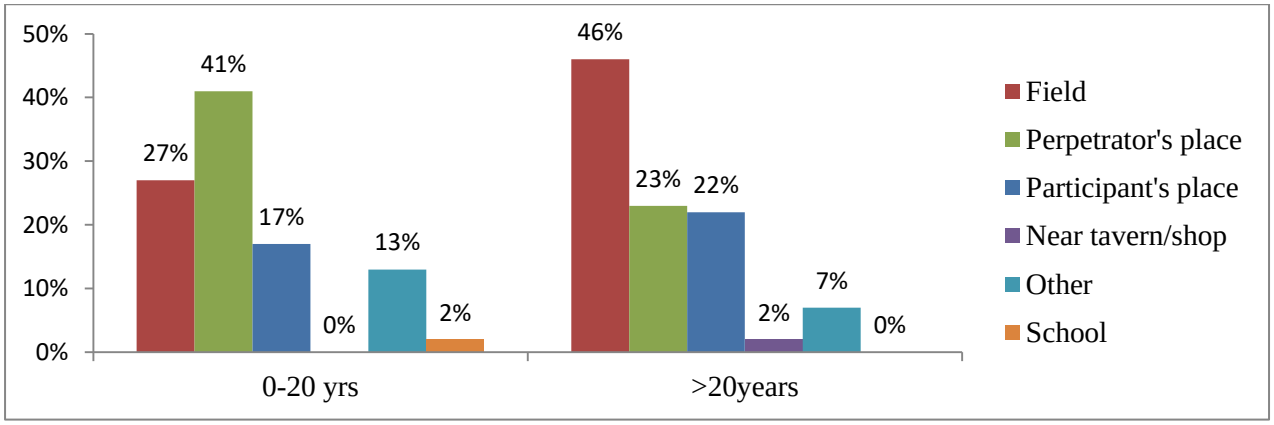
Participants older than 20 years were 2.8 times more likely to be sexually assaulted during the night than those who were younger than 20 years of age. (OR 2.8, p = 0.00, CI 1.79 - 4.46).



chi2 (3) = 56.22 p-value = 0.00

Figure 2: Participants' age groups versus duration before reporting to hospital

The participants older than 20 years were 10 times more likely to report to the hospital for help within 24 hours of sexual assault than those younger than 20 years old (OR 10, p = 0.00, CI 4.65 - 21.65). They were also 3.9 times more likely to report to the hospital for help within 48-72 hours of sexual assault than those younger than 20 years old. (OR 3.9, p = 0.01, CI 1.38 -11.00).

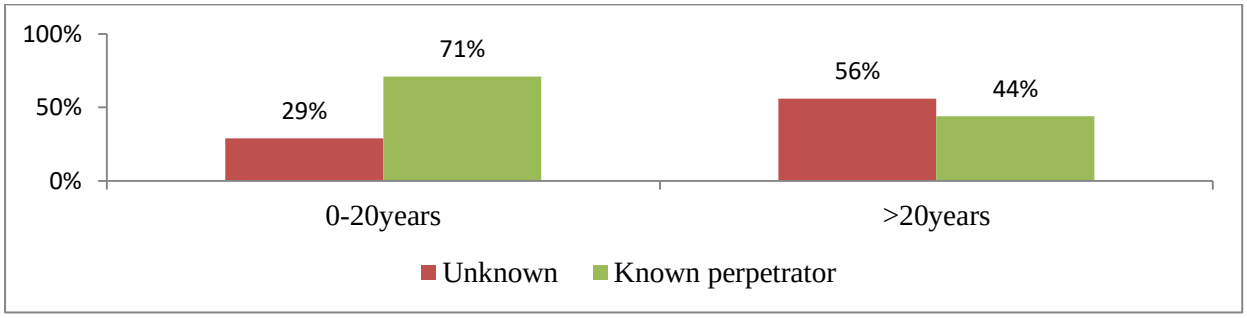


chi2 (5) = 39.82 p-value = 0.000

Footnote: Other = party venue, inside motor vehicle, detention facility, etc.

Figure 3: Participants' age groups versus assault site

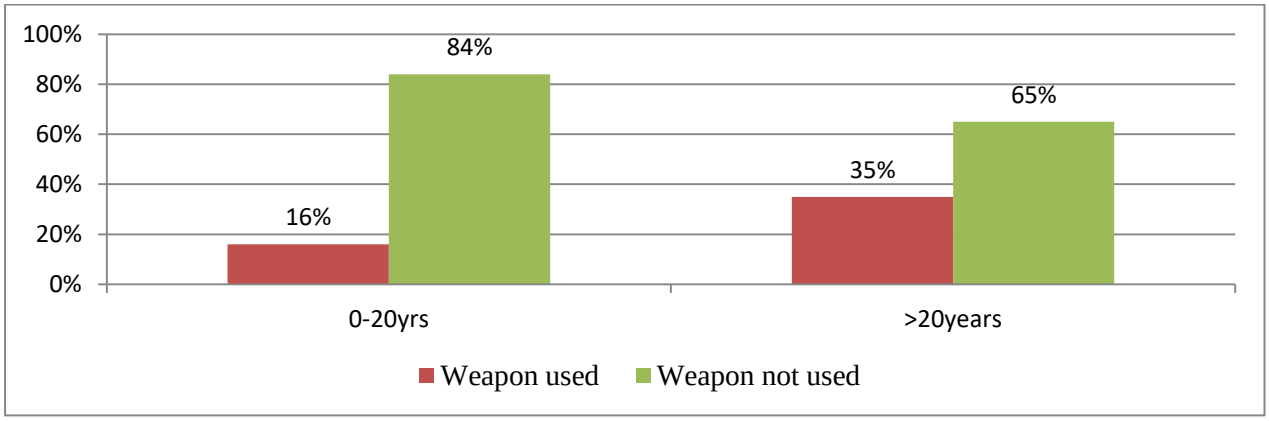
Figure 3 shows that participants older than 20 years were less likely to be sexually assaulted at the perpetrator's place than those younger than 20 (OR 0.11, P = 0.00, CI 0.12-1.00). Similarly, participants older than 20 were less likely to be assaulted at locations designated as "Other" (see above). (OR 0.10, P = 0.01, CI 0.10-1.00).



chi2 (1) = 39.08 p-value = 0.00

Figure 4: Participants' age groups versus perpetrator knowledge

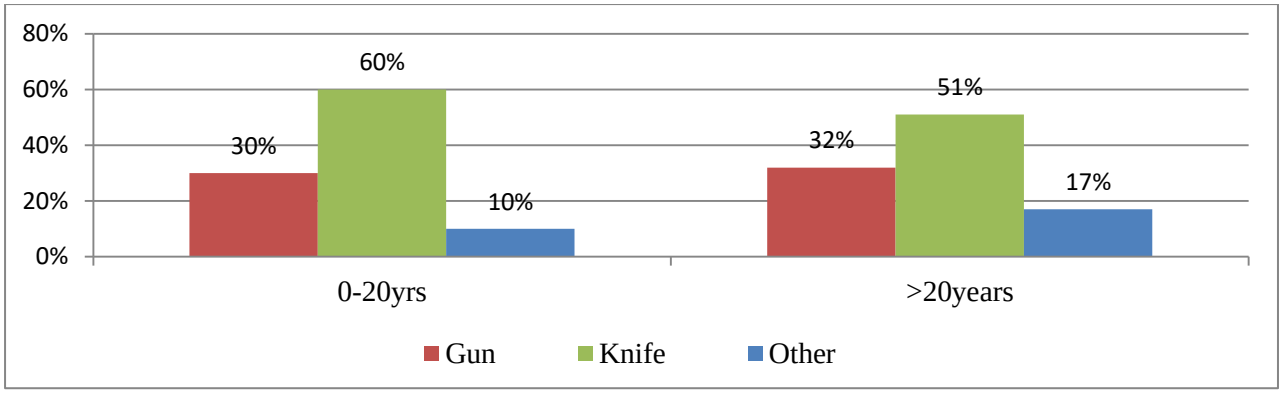
Participants older than 20 years of age were less likely to be sexually assaulted by a known perpetrator when compared to participants younger than 20 years. (OR 0.31, p = 0.00, CI 0.21-0.45).



Chi2 (1) = 23.18 p-value = 0.00

Figure 5: Participants' age groups versus weapon use by the perpetrator

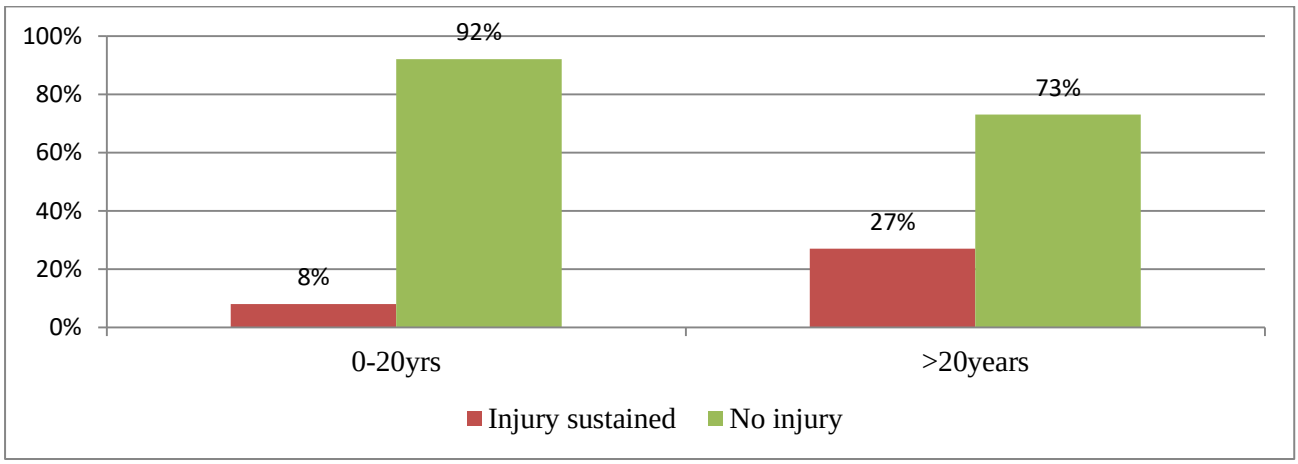
Participants older than 20 years were 2.7 times more likely to report that they were threatened with a weapon when compared to those younger than 20 years (OR 2.7, P = 0.00, CI 1.81-4.18).



Chi2 (3) = 24.36 p-value = 0.00

Figure 6: Participants' age groups versus type of weapon used

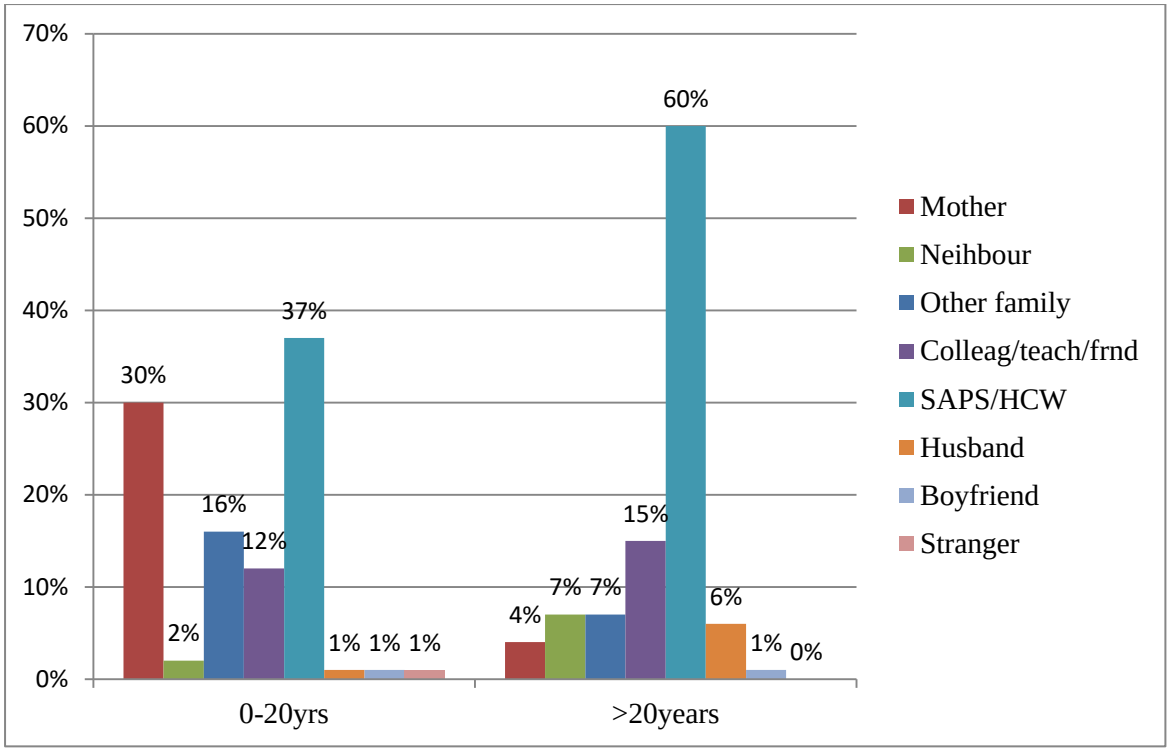
Participants older than 20 years were more likely to report that they were threatened with a weapon during sexual assault when compared to those younger than 20 years. It was 2.9 times more for a gun (OR 2.9, P = 0.002, CI 1.46-5.82), 2.4 times more for a knife (OR 2.37, p = 0.001, CI 1.40-4.02) and 4.4 times more for other types of weapons (0R 4.42, p = 0.01, CI 1.54-12.66).



Chi 2 (1) = 31.98 p-value = 0.00

Figure 7: Participants' age groups versus non-genital injury sustained during sexual assault

Participants older than 20 years were 4.2 times more likely to sustain non-genital injuries when compared to those younger than 20 years (OR 4.20, P = 0.00, CI 2.48-7.06).



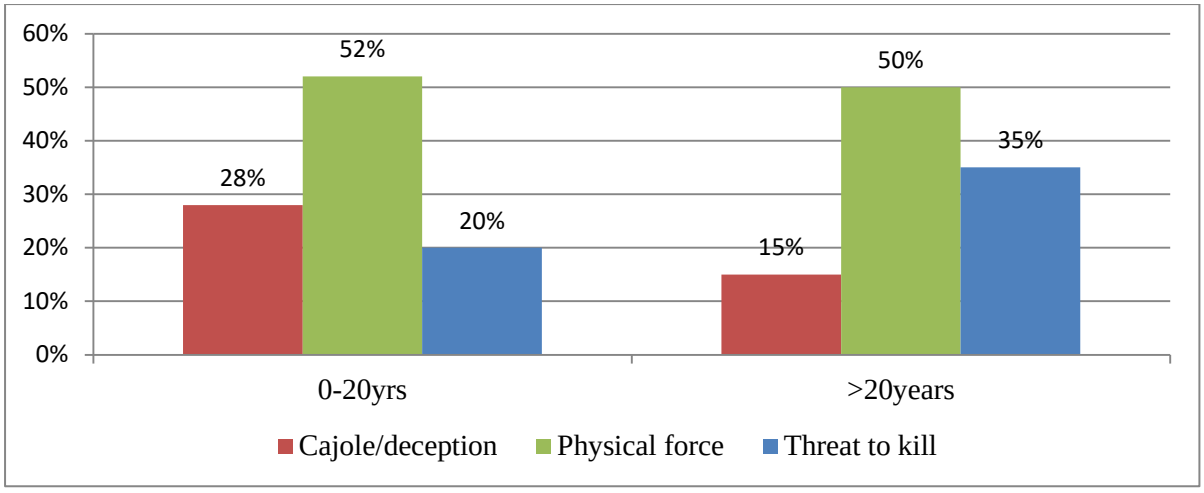
Chi2 (7) = 90.80 p-value = 0.00

Figure 8: Participants' age groups versus individual first spoken to by the participant
Footnote: Colleague/teacher/friend

The participants who were older than 20 years were 13.6 times more likely to report first to the SAPS or a HCW when compared to those younger than 20 years (OR 13.6, p = 0.00, CI 6.29-29.25).

The participants who were older than 20 years were 65 times more likely to report first to their husbands when compared to those younger than 20 years (OR 65.25, p = 0.00, CI 12.37-344.16).

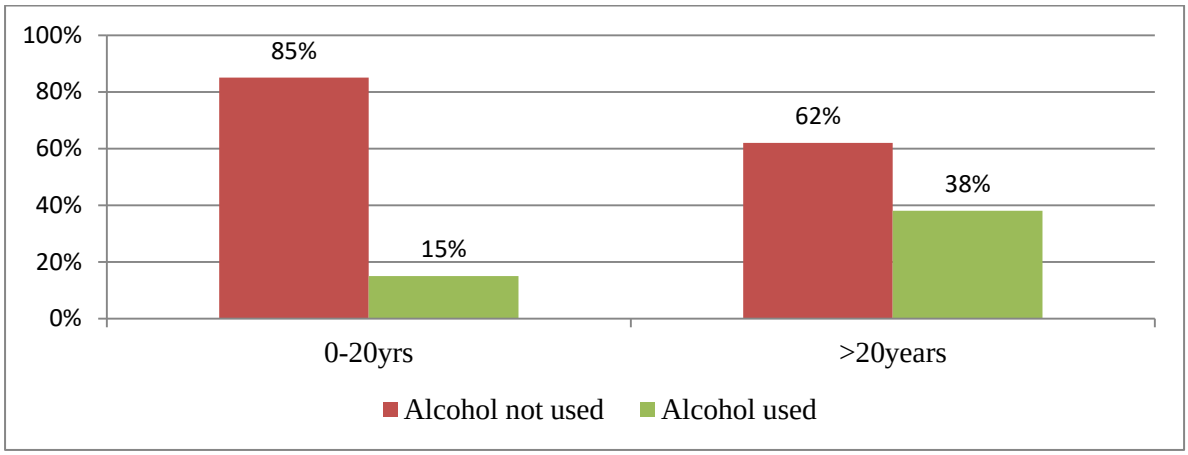
The participants who were older than 20 years were also 10.2 times more likely to report to their colleague, teacher or friend when compared to those younger than 20 years old (OR 10.2, p = 0.00, CI 4.29-24.44).



Chi2 (2) = 20.72 p-value = 0.00

Figure 9: Participants' age groups versus strategy used by perpetrator

Participants older than 20 years were 1.8 times more likely to report that they were threatened with death or bodily harm by the perpetrators when compared to those younger than 20 years (OR 1.8, P = 0.00, CI 1.40-2.37).

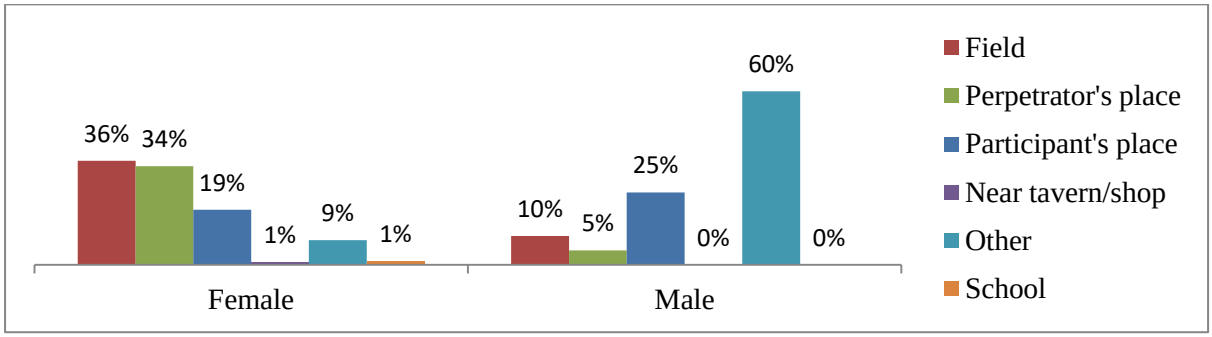


Chi (1) = 33.12 p-value = 0.00

Figure 10: Participants' age groups versus alcohol use by participant

Participants older than 20 years were 3.4 times more likely to have used alcohol before suffering sexual assault when compared to participants younger than 20 years (OR 3.40, p = 0.00, CI 2.20-5.12). The data concerning the day of sexual assault and the day of seeking help from the hospital were not statistically significant.

4.4.2 Participants' gender versus sexual assault characteristics

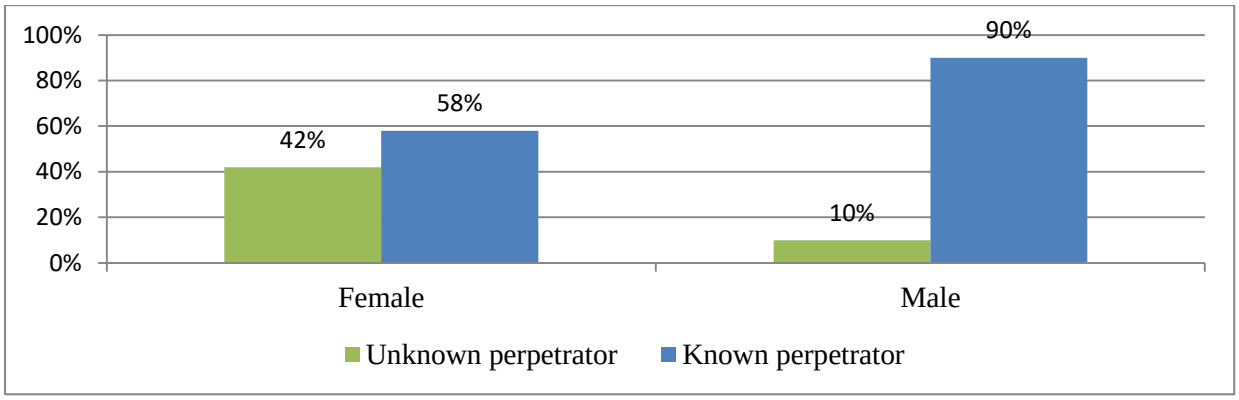


Chi2 (5) = 57.54 p-value = 0.00

Footnote: Other = party venue, inside motor vehicle, detention facility, etc.

Figure 11: Participants' gender versus assault site

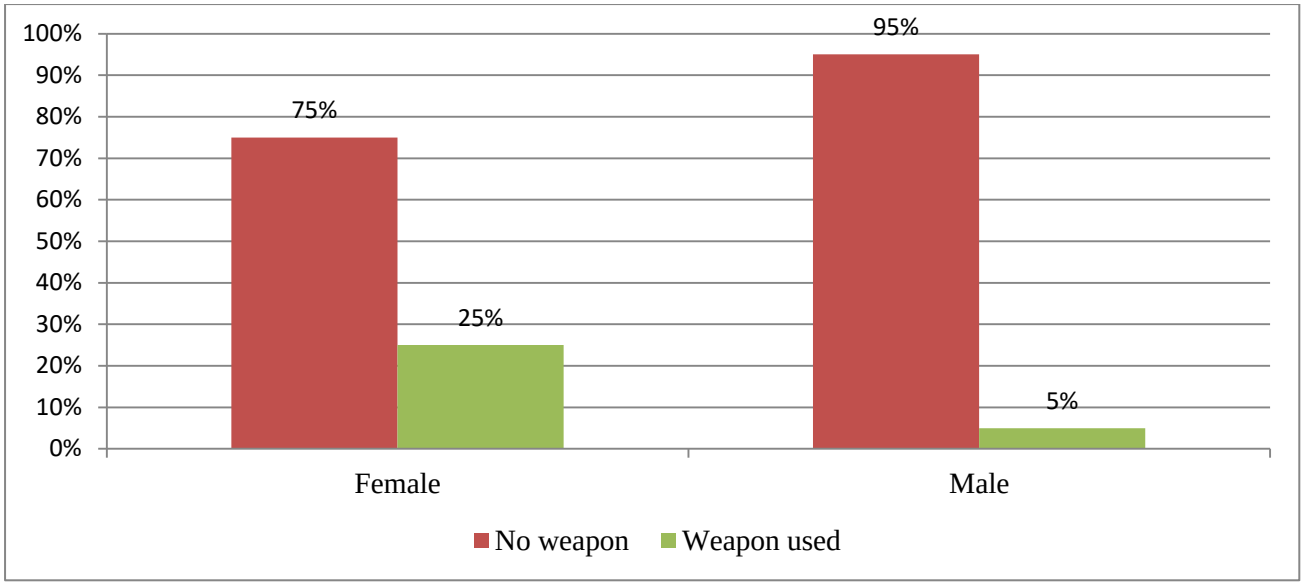
Females were less likely to be sexually assaulted in places classified as "Other" when compared to males (OR 0.05, P = 0.00, CI 0.01-0.19). Other assault sites did not show any statistically significant association with gender.



Chi2 (1) = 8.14 p-value = 0.00

Figure 12: Participants' gender versus their knowledge of the perpetrator of the sexual assault

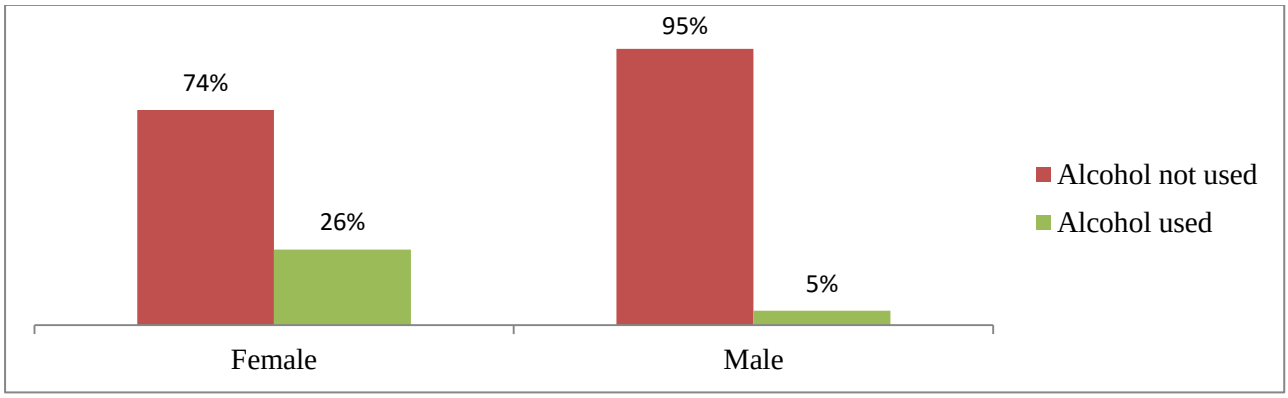
Females were less likely to know the perpetrator of the sexual assault when compared to males (OR 0.15, p = 0.01, CI 0.04-0.67).



Chi2 (1) = 4.30 p-value = 0.04

Figure 13: Participants' gender versus use of a weapon by the perpetrator

Females were more likely than males to report that the perpetrator used a weapon, although logistic regression did not show any statistical significance (OR 6.46, p = 0.07, CI 0.90–48.74).



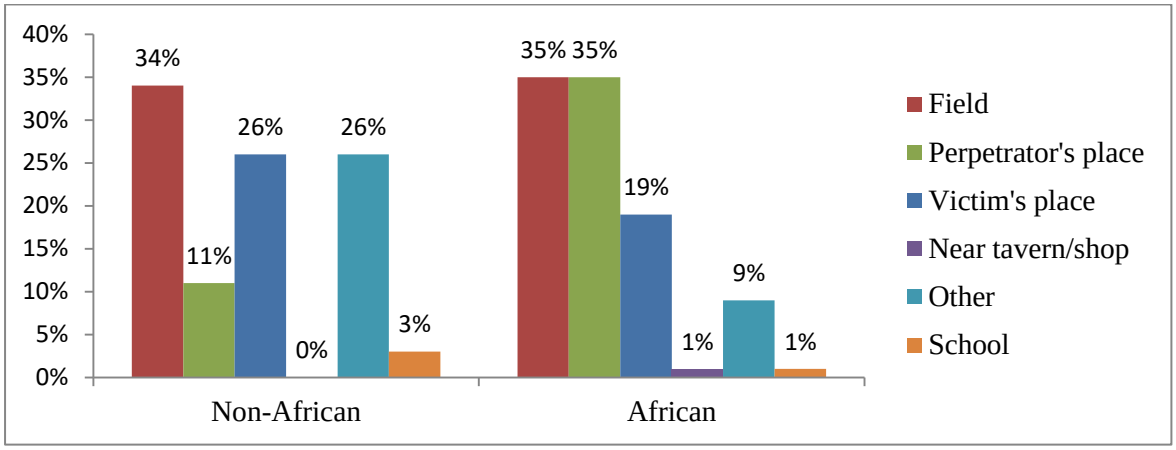
Chi2 (1) = 4.493 p-value = 0.03

Figure 14: Participants' gender versus consumption of alcohol in victim before sexual assault

Female participants were more likely to consume alcohol before being sexually assaulted when compared to the males, but it was not statistically significant when logistic regression analysis was used (OR 6.67, p = 0.07, CI 0.90–50.35).

The time and day of the sexual assault, the day of the week of seeking help from the hospital, and findings of non-genital injuries were not statistically significant with gender.

4.4.3 Participants' race versus sexual assault characteristics



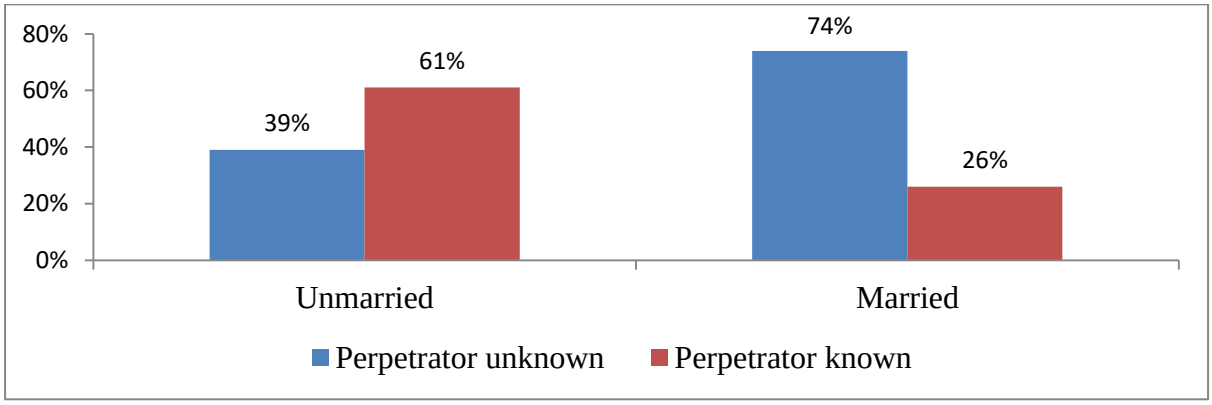
Chi2 (5) = 18.04 p-value = 0.00

Footnote: Other = party venue, inside motor vehicle, detention facility, etc.

Figure 15: Participants' race versus assault site

There was no statistical significance between race and assault site when logistic regression analysis was used, although Africans were more likely to be assaulted at the perpetrator's place compared to non-Africans, while non-Africans were more likely to be sexually assaulted in locations categorised as "Other" (inside vehicles, at party venues or in detention facilities. A majority of the sexual assault characteristics were not significant with race and language when logistic regression analysis was used.

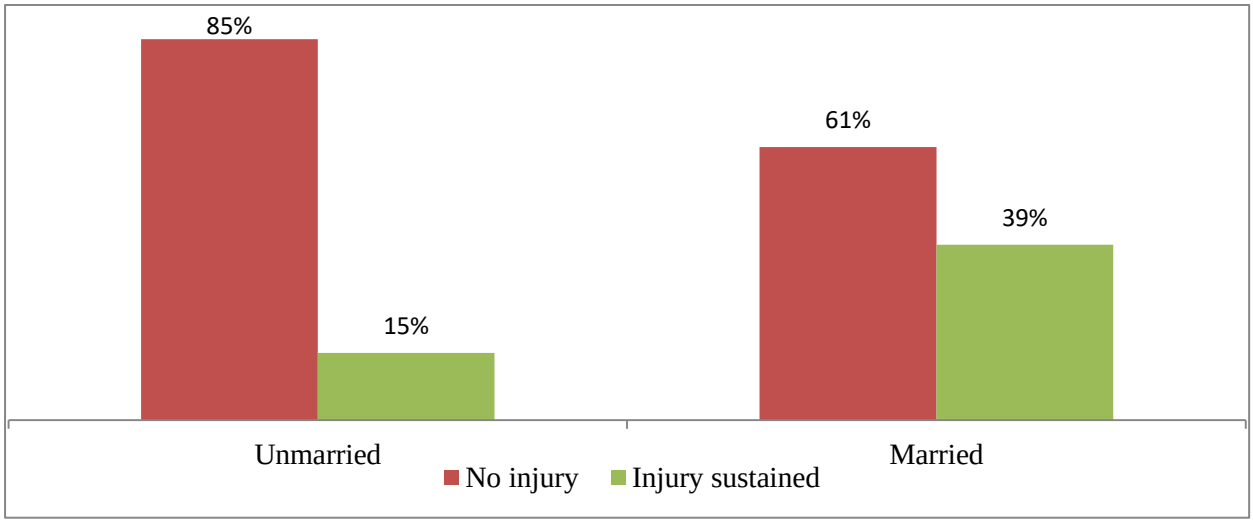
4.4.4 Participants' marital status versus sexual assault characteristics



Chi (10) = 11.00 p-value = 0.00

Figure 16: Participants' marital status versus their knowledge of the perpetrator

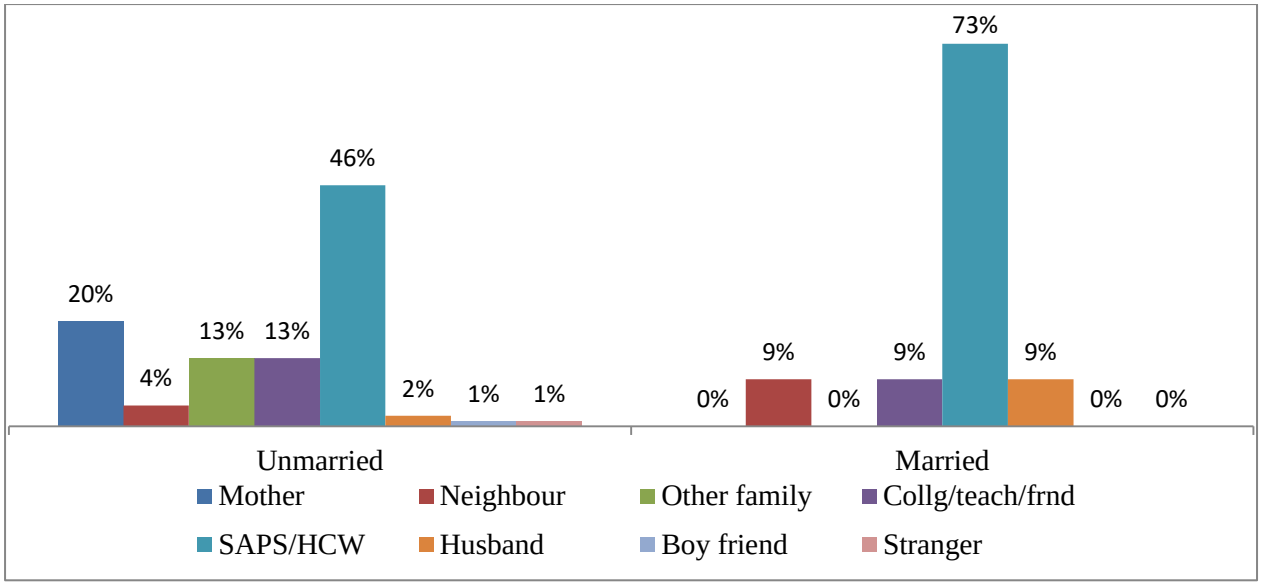
Married participants were less likely to know who the perpetrator was when compared to unmarried participants (26% vs. 61%), and logistic regression showed this was statistically significant (OR 0.23, p = 0.00, CI 0.09–0.59).



Chi (2) = 9.40 p-value = 0.00

Figure 17: Participants' marital status versus sustaining of non-genital injury

Married participants were 3.6 times more likely to sustain non-genital injury/ies when compared to unmarried participants. (OR 3.62, p = 0.00, CI 1.51-8.69).



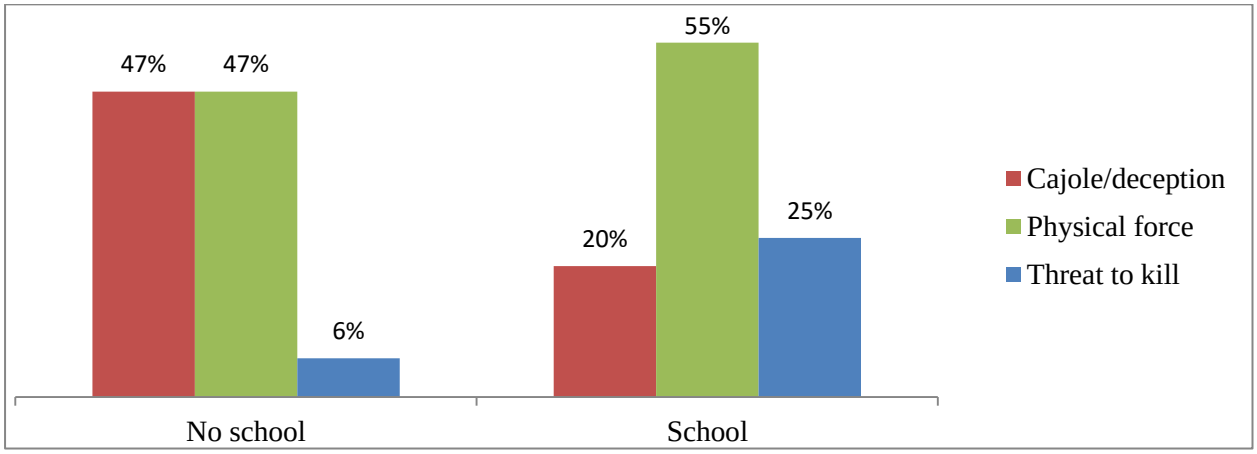
Chi (7) = 16.11 p-value = 0.02

Figure 18: Participants' marital status versus individual first spoken to by the participant

Married participants when compared to unmarried participants were 3.2 times more likely to speak first to a neighbour than to their mother (OR 3.19, p = 0.04, CI 0.12-6.27). Married participants were also 3.6 times more likely to report to their husbands first (OR 3.64, p = 0.02, CI 0.55-6.73).

All other sexual assault characteristics were not statistically significant.

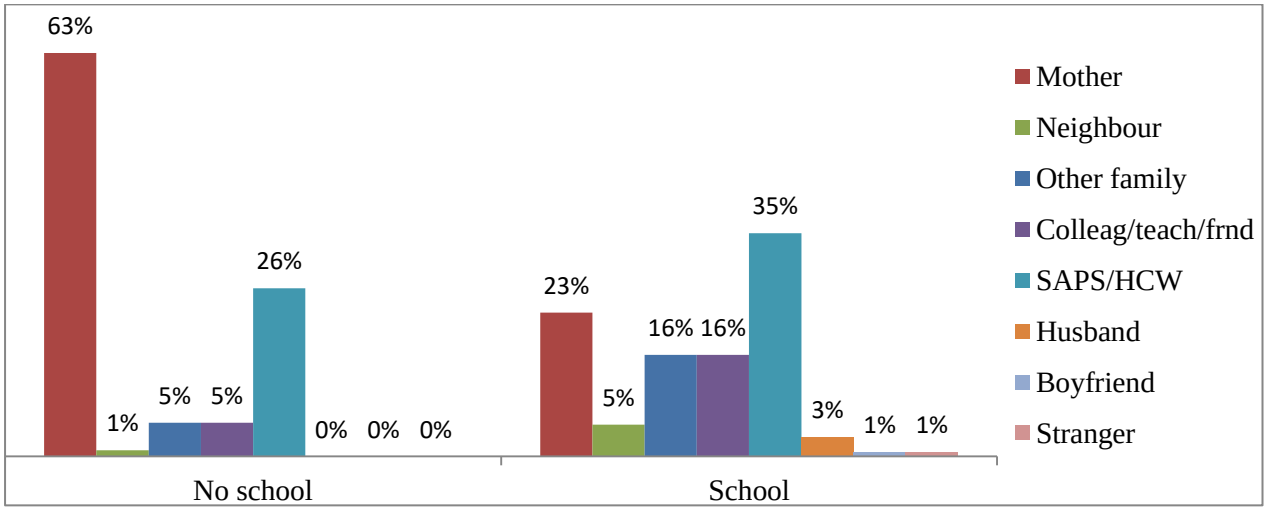
4.4.5 Participants' educational level versus sexual assault characteristics



Chi2 (2) = 8.19 p-value = 0.02

Figure 19: Participants' educational status versus perpetrator strategy

Educated participants were 11 times more likely to be threatened with death or bodily harm than uneducated participants (OR 10.93, p = 0.03, CI 1.30-91.57).



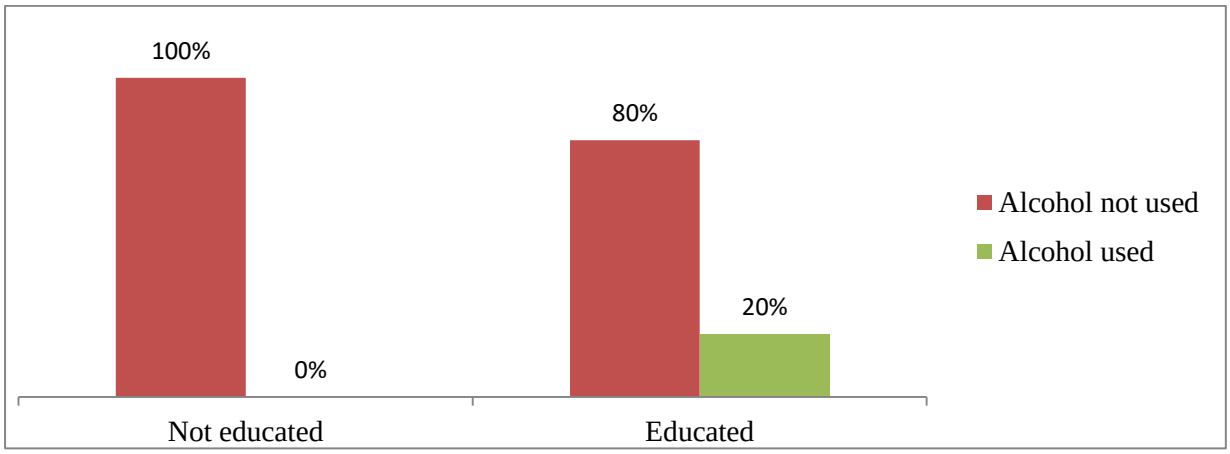
Chi2 (7) = 15.12 p-value = 0.04

Footnote: Colleague/teacher/friend

Figure 20: Participants' educational status versus individual first spoken to by the participant

Figure 20 shows that uneducated participants reported the sexual assault first to their mothers when compared to educated participants (63% vs. 23%), while educated participants reported to the SAPS/HCW more than uneducated participants (35% vs. 26%).

Logistic regression then showed that uneducated compared to educated participants, were six times more likely to report to other family member(s) or to their colleague/teacher/friend (OR 5.95, p = 0.05, CI 1.01-35.22), and 3.5 times more likely to report to the SAPS/HCW (OR 3.5, p = 0.03, CI 1.17-10.50), when compared to reporting to their mother.



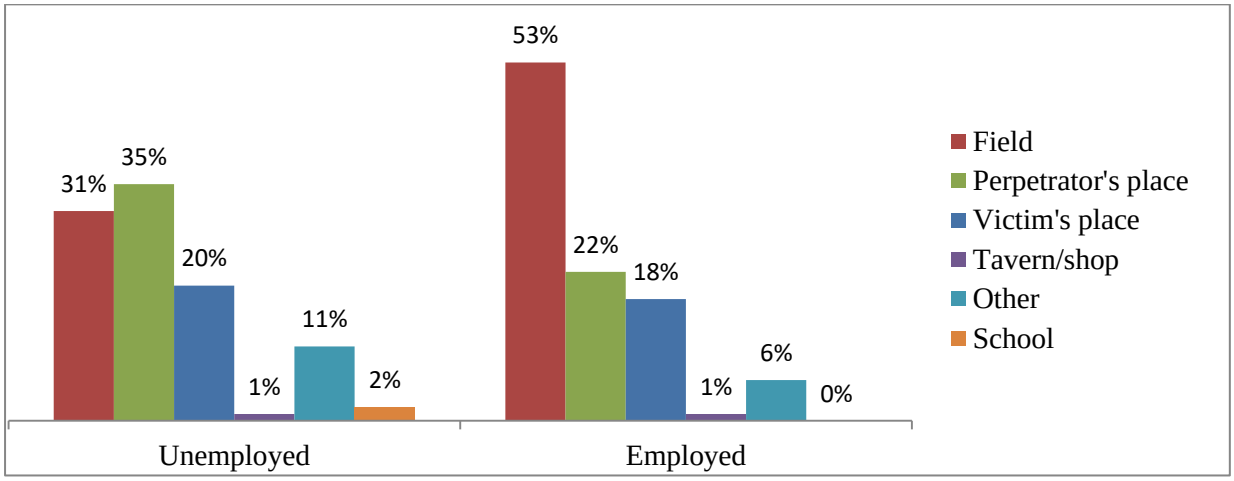
Chi2 (1) = 4.50 p-value = 0.03

Figure 21: Participants' educational status versus alcohol use in the participant

Educated participants were more likely to use alcohol when compared to uneducated participants (20% vs. 0%) although it was not statistically significant when logistic regression was used (OR 2.3, p = 0.12, CI 0.57-5.10).

Other sexual assault characteristics were also not found to be statistically significant with education.

4.4.6 Participants' employment status versus sexual assault characteristics

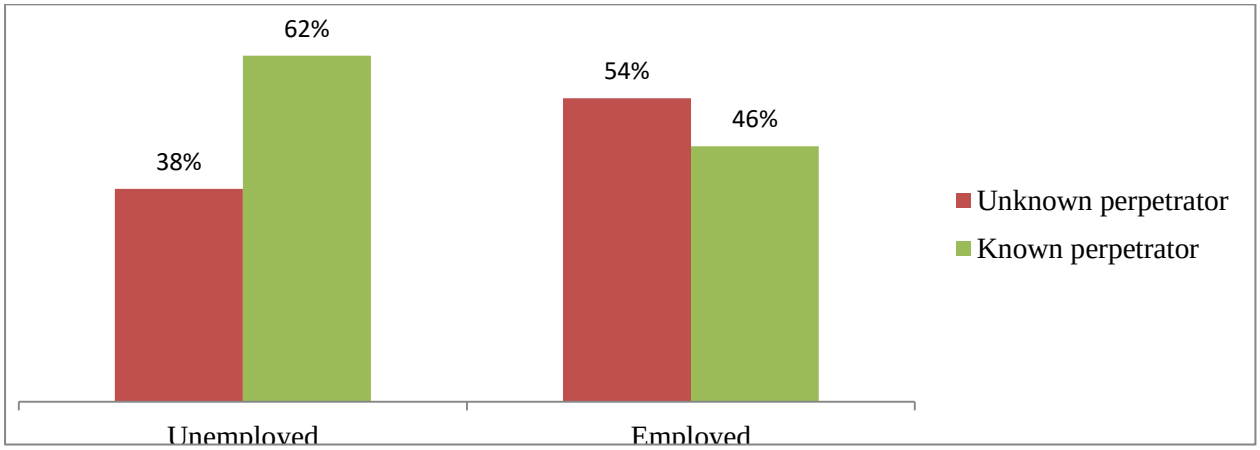


Chi2(5) = 15.68 p-value = 0.008

Footnote: Other = party venue, inside motor vehicle, detention facility, etc.

Figure 22: Participants' employment status versus site of assault

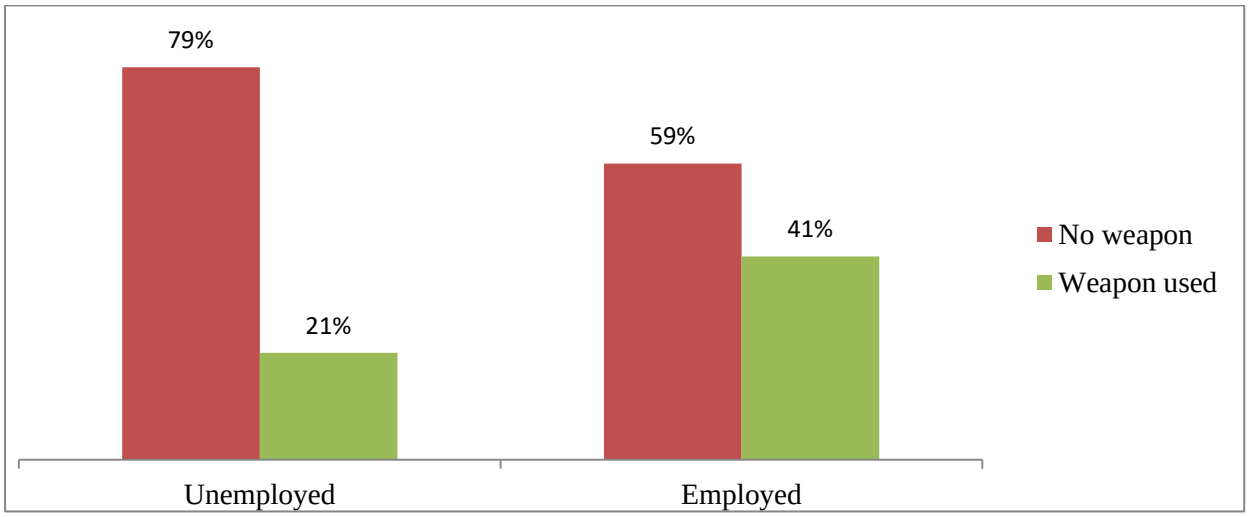
There was no statistical significance between employment status and site of sexual assault when logistic regression was done. However, employed participants were found to be assaulted more often in open fields than the unemployed, when chi-squared was used (53% vs. 31%).



Chi2 (1) = 7.40 p-value = 0.01

Figure 23: Participants' employment status versus knowledge of the perpetrator

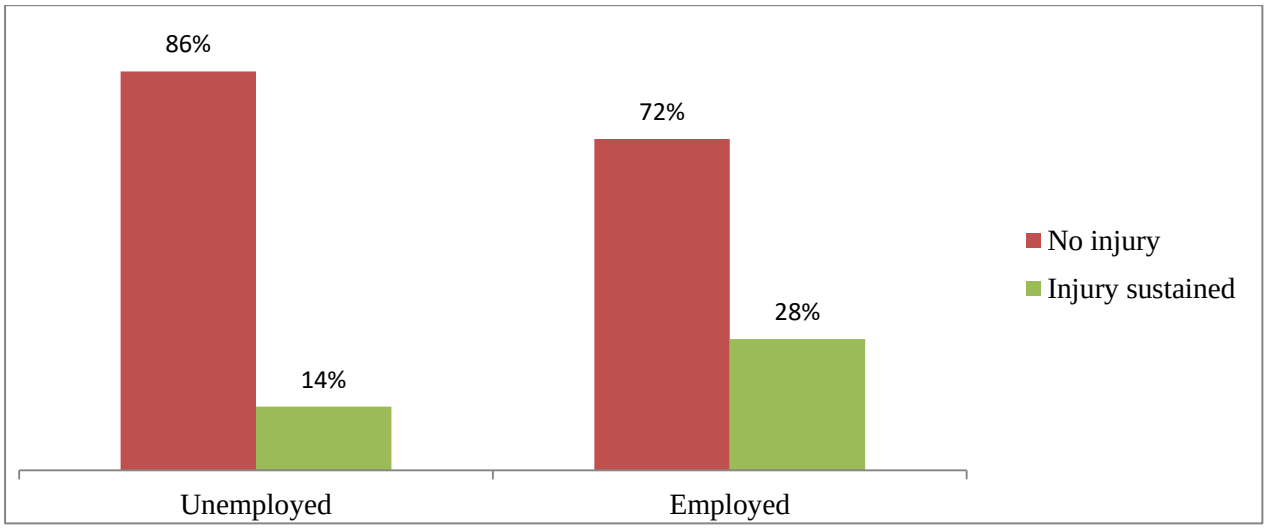
Logistic regression analysis showed that employed participants were less likely to know who the perpetrator was compared to those who were unemployed (OR 0.52, p = 0.01, CI 0.32-0.84).



Chi2 (1) = 13.67 p-value = 0.00

Figure 24: Participants' employment status versus weapon usage by the perpetrator

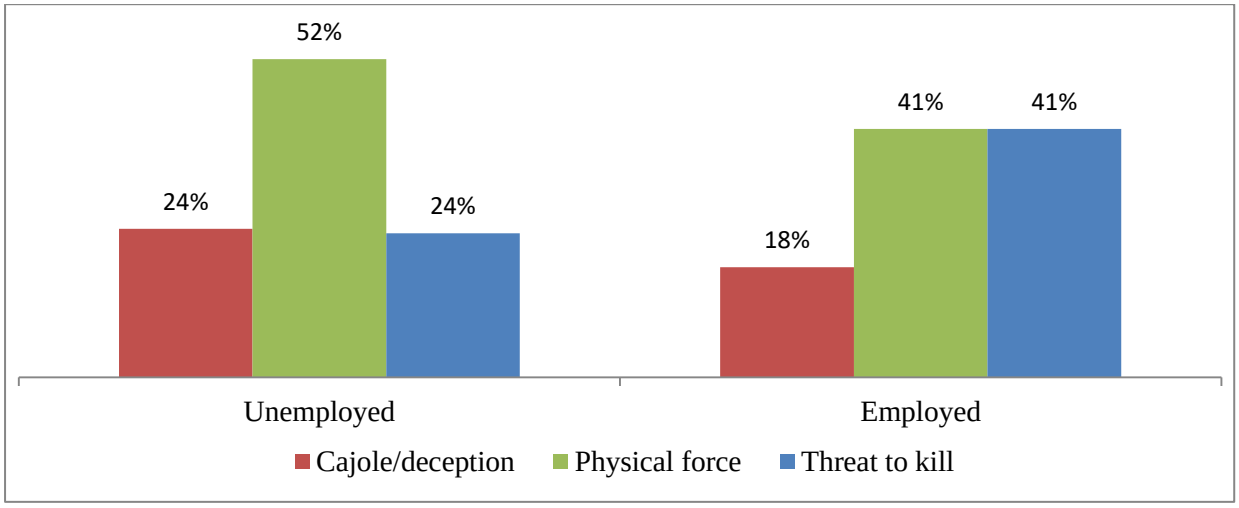
The employed participants were 2.5 times more likely to report use of a weapon by the perpetrator when compared to the unemployed participants (OR 2.52, p = 0.00, CI 1.53-4.16). The type of weapon vs. employment was not statistically significant (p = 0.47)



Chi2 (1) = 10.66 p-value = 0.00

Figure 25: Participants' employment status versus sustenance of non-genital injury by the participant

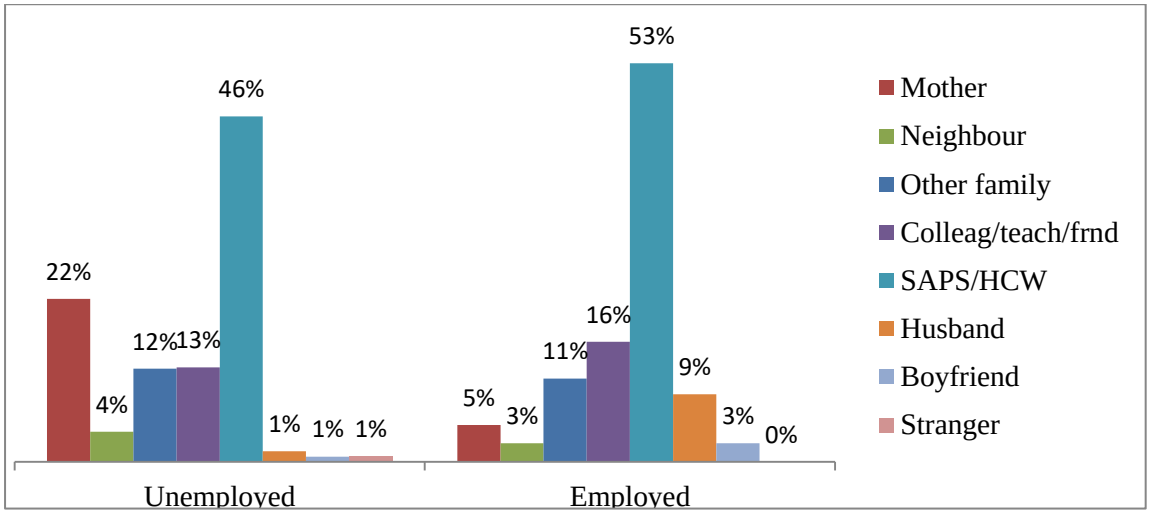
Employed participants were more likely to suffer non-genital injury/ies than those who were unemployed (OR 2.48, p = 0.00, CI 1.42-4.32).



Chi2 (2) = 10.32 p-value = 0.01

Figure 26: Participants' employment status versus perpetrator strategy

The employed were 1.6 times more likely to report being threatened with death or bodily injury when compared to the unemployed. (OR 1.60, p = 0.00, CI 1.13-2.27).



Chi2 (7) = 32.15 p-value = 0.00

Footnote: Colleague/teacher/friend

Figure 27: Participants' employment status versus individual first spoken to by participant

The employed participants were 3.3 times more likely to speak first to their husbands about the sexual assault when compared to the unemployed participants (OR 3.28, p = 0.00, CI 1.89-4.67).

Employed participants were 2.7 times more likely to speak first to their boyfriend about the sexual assault when compared to unemployed participants (OR 2.68, p = 0.01, CI 0.80-4.55).

The employed were 1.6 times more likely to speak first to colleagues, teacher, or friend about the sexual assault when compared to unemployed participants (OR 1.64, p = 0.00, CI 0.52-2.74).

The employed were 1.5 times more likely to speak first to the SAPS or a HCW about the sexual assault when compared to unemployed participants (OR 1.52, p = 0.00, CI 0.52-2.52).

The employed were 1.3 times more likely to speak first to a family member about the sexual assault when compared to unemployed participants (OR 1.30, p = 0.03, CI 0.13-2.47).

4.5 Summary of results

The majority of the participants were single, unemployed, female Africans who spoke Tswana and resided in Mogale City. The mean age was 21.5 years, with below 20 years being the most common age group. More than half of the participants reported that they were sexually assaulted between a Friday and a Sunday (18h00 – 06h00) and 43% of them sought help immediately. Eighty-two percent of the participants presented to the hospital within 72 hours of the assault. Open fields were the most common site for sexual assault, followed by the perpetrator's place, and more than half of the participants knew the assailant. Although physical force was the most common strategy employed by the perpetrators to overcome the participants, threat of death or bodily harm was also commonly used. Twenty-five percent reported the use of weapons and the most common weapon used was a knife. Sixteen percent of the participants had non-genital injuries while 25% admitted to using alcohol before the sexual assault. The majority of participants were sexually assaulted by a single perpetrator, and 7% of all cases involved condom use.

Those older than 20 years were more likely to be sexually assaulted at night and sought help before 72 hours had elapsed. They also reported use of weapons, threats of death or bodily

harm, non-genital injuries, and use of alcohol. These participants spoke first to the SAPS/HCW when compared to those younger than 20 years. Those less than 20 years were more likely to be sexually assaulted in the perpetrator's place or at party venues, inside a motor vehicle or a detention facility.

In this study, the male participants knew the perpetrator and were sexually assaulted in detention facilities, while females were more likely to report use of weapons and alcohol when compared to males, although this was not found statistically significant ($p = 0.07$). Africans were more likely to be sexually assaulted at the perpetrator's place when compared to non-Africans. Married participants sustained non-genital injuries and spoke to their husbands or neighbours first. Educated participants, some of whom had consumed alcohol, were threatened with death or bodily harm; they reported first to the SAPS/HCW when compared to uneducated participants. Unemployed participants knew their assailants and were sexually assaulted at the perpetrator's place. The employed participants reported use of weapon, non-genital injuries, threat of death or bodily harm and spoke first to their husband/boyfriend/colleague.

CHAPTER 5: DISCUSSION

This chapter compares the findings in this research with those of other studies that were discussed in the literature review. Prior to this study, there was no research done on sexual assault in the West Rand Health District of Johannesburg, therefore a cross-sectional descriptive design was used to gain a clear picture of sexual assault in the district. The study sample comprised 501 participants, and the researcher was pleased with the sample size used in the study.

5.1 Socio-demographic features of the participants

5.1.1 Age

The age range of the participants was from 2 to 72 years with a mean age of 21.5 ± 12.3 years, which was similar to a Nigerian study done in Lagos (3-53 years, average age of 21.2 years ± 8.8 years).[25] However, the mean age in this study was lower than another study done in South Africa[11] (31.4 years), but higher than a study done in Dhaka city, Bangladesh[26] (17.5 ± 4.35 years). From the above, we can conclude that the average age of victims of sexual assault varied from place to place, and that young adults are affected. In this study, the most common age group was those younger than 20 years i.e. 0-20 years (56.9%, n=285). More specifically, a sizeable proportion of the participants fell into the age group 11 – 20 years (42.1%, n =211) which was in stark contrast to the findings of the Dhaka city study where 70% of the participants fell into the age group of 11 – 20 years, with 11.3% for 21-30 years.[26]

5.1.2 Gender

The number of female participants in this study exceeded the number of males (96%, n=481 vs. 4%, n=20). This data was similar to that of the Nigerian study (female 93.9% vs. male 6.1%) [25], and the American statistical report from Honolulu, Hawaii (female 90% vs. male 10%).[27]

Although either gender can suffer from sexual assault, the circumstances and explanations for predominant female victimization reporting differ from place to place; researchers from around the globe seemed to agree that females were more at risk. [25, 26, 27, 28, 29]

5.1.3 Race

The racial spread of the participants showed that an overwhelming 92.4% (n=463) was of black African descent, followed by Whites, 5.2% (n=26). The STATS SA 2011 census

showed that the West Rand had a majority population of black Africans (79.2%), followed by Whites (16.7%).[24] This might be the reason why a majority of the participants were of black African descent.

5.1.4 Language

Although, Zulu is the most common language spoken in South Africa, followed by Xhosa and Afrikaans, this study showed that the language most spoken amongst the participants in this study was Tswana at 42.3% (n=212), while the least spoken was Afrikaans at 7% (n=35). This figure only represented the participants who came to the hospital and was somewhat similar to the STATS SA 2011 census data for the West Rand (Tswana 27.3%, Afrikaans 16.9%, Xhosa 14.9%).[24]

5.1.5 Marital status

The majority of the participants in this study were documented as single, at 94.2% of the total (n=472), followed by "married" (married and co-habiting participants) 4.8% (n=24). The "singles" figure included children and teenagers and was higher than in other studies done elsewhere: In South Africa (53.3%, 62.1% and 48.4%, in "The 3 Province study"),[11] Dhaka city, Bangladesh (78.7%)[26] and Honolulu, Hawaii, USA (63.5%).[27]

It could therefore be stated that there was an unexpectedly high incidence of sexual assault amongst single individuals in the West Rand district, and that the associated factors should be the subject of a future study.

5.1.6 Educational level

It was discovered that two-thirds of the participants' educational levels were not documented in their files. However, the reviewed files still showed that 30.9% (n=155) had some level of education, which was much lower than in the Bangladesh study done in Dhaka city (71%, n=163).[26] This study looked at pre-school and post-matric (post-secondary) education, while the Dhaka city study only looked at school education as a whole, thus the findings in this research might be due to inadequate documentation of educational levels in the files of the participants. Surprisingly, this study also showed that secondary school students were more commonly sexually assaulted amongst those recorded as being educated; therefore, there is a need for targeted health education in these individuals.

5.1.7 Employment status

A majority of the participants were unemployed, at 83.8% of the total (n=420). This group included children and teenagers. Although the STATS SA 2011 census stated that West Rand had an adult unemployment rate of 26.7%,[24] it was difficult to come to a clear conclusion as our study did not look at different age-groups separately. The Honolulu study[27] had an unemployment rate of 61.4%, which was also lower than our study. The employment rate amongst the participants in this study was 16.2% (n=81), which was totally different to the South African paper used for comparison (32.5%, 47.4% and 35.2% respectively across the three study provinces).[11]

5.1.8 Residence

A majority of the participants resided within the West Rand District, with only 7.8% (n=39) residing in areas outside the West Rand. Slightly over half (51.7%, n=259) of the participants lived in Mogale City (North and South), followed by the Westonaria sub-district (22%, n=112). This suggested that access was probably easier for people living close to the hospital, which is located in Mogale City. Participants from Westonaria, which is 30 kilometres away from Leratong Hospital, made use of the hospital because it was the only functional sexual assault centre close enough to their sub-district during the study period. However, this situation may have changed due to a new sexual assault centre that was opened in June 2015, which now renders services within the Westonaria sub-district.

Participants who came from outside the West Rand, especially from Roodepoort, used the hospital because of its proximity and its location close to the Johannesburg metropolitan municipality.

5.2 Association of sexual assault characteristics with socio-demographic features of the participants

5.2.1 Day and time of sexual assault

More than half (58%, n=290) of all the reported cases in Leratong Hospital in 2014 occurred around weekends from Fridays to Sundays. This was similar to the previously reported South African trend.[6, 8]

More than half (57.3%, n=287) of the sexual assault cases reported to Leratong Hospital in 2014 took place between 6pm and 6am, implying that these incidents were more likely to occur under the cover of darkness. Again, this was in line with what had previously been

reported in South Africa[8], but differed from the Nigerian study where sexual assaults were reported to occur slightly more frequently during day-time (53.6%) than at night-time (46.4%).[25]

In the current study, participants older than 20 years were three times more susceptible to sexual assault during the night when compared to participants younger than 20 years (p =0.00). This finding agreed with the Nigerian study where teenagers or adolescents were 17 times more likely to be sexually assaulted during the day, and non-teenagers at night (p <0.001). [30] It also agreed with another Nigerian study where participants older than 30 years were sexually assaulted at night (p =0.00).[25]

It can be deduced that there was more danger of sexual assault at night in the West Rand District, in line with what was previously reported in South Africa.[8] This suggested that the identified vulnerable populace should be educated accordingly, and preventive security measures should be more focused at night.

5.2.2 Day of the week and duration before seeking help

Just over one-quarter of the participants (26.6%, n=133) sought help at the hospital on a Sunday, while 16.2% (n=81) presented to the hospital on a Saturday. This meant that about 43% of the victims presented to the hospital over weekends, thus showing that they sought help shortly after the sexual assault. Similar trends were seen in the Dhaka city paper.[26] The above finding followed a similar pattern to the day of the week that the sexual assault actually occurred.

Almost two-thirds (62.3%, n=312) of the participants reported to the hospital within 24 hours of the incident, but this was in contrast to the findings of another study from south-western Nigeria, where only 35.5% of the victims presented within 24 hours.[30] In the current study, this figure rose to 75% (n=376) when considering those who came to the hospital between 24 to 48 hours, with 82% (n =409) presenting between 48 to 72 hours.

Participants older than 20 years were 10 times more likely to report within 24 hours of sexual assault (p =0.00) and were four times more likely to report within 48 to 72 hours (p= 0.01) when compared to those younger than 20 years. This finding suggested that participants younger than 20 years were only reporting sexual assault after 72 hours. This might be due to fear of stigma/not being believed by the parents or care-givers, or fear of threat made by the perpetrator. It is therefore imperative to target this group for education about seeking help

immediately after sexual assault occurred, in order to access adequate treatment/therapy and to prevent forensic evidence from being lost. This would also reduce the risk of contracting HIV/STI from the sexual assault.

Fourteen percent (n=70) were documented to have come to the hospital after 72 hours had elapsed. This last group had the added implication that the Post Exposure Prophylaxis (PEP) for STIs/HIV could then not be dispensed to them, in accordance with current approaches to the management of sexual assault and rape.[31] This could be a big problem, even though a relatively small number of participants presented late.

Five percent (n=25) of the participants who sought help after seven days of sexual assault included children, young adults and adult participants who could not recount the exact date/day of the week on which they were sexually assaulted. This highlighted the need to educate the community that, in the unfortunate circumstance of sexual assault, victims need to report to the police or the nearest health facility as soon as possible in order to access adequate services and to prevent further health implications.

5.2.3 Place of assault

The open veld/field was the most common site where sexual assaults occurred in the West Rand in 2014 (34.9%, n=175), followed by the perpetrator's place (32.9%, n=165), and the victim's place (19.4%, n=97). This was found to be in agreement with previous South African reports,[7, 8] but differed from the Dhaka city study where most sexual assaults took place at the victim's house (37%, 85/230), while the perpetrator's place was 11.7% of the total (27/230).[26] This study found that sexual assaults took place more frequently in the perpetrator's place when compared to the Dhaka city study.[26]

Participants younger than 20 years were more likely to be sexually assaulted in the perpetrator's place (p= 0.01) and at areas categorised as "Others" (party venues/inside motor vehicles/detention facilities), (p= 0.01). Males were more often sexually assaulted than females in the areas called "Others" (party venues/vehicle/detention facilities) (p= 0.01). Africans, when compared to non-Africans, were generally more likely to be sexually assaulted in the perpetrator's place (35% vs. 11%), while non-African males were assaulted in detention facilities (26% vs. 9%), although this was not found to be statistically significant when logistic regression was used. This finding differed from that of the Honolulu study where more males than females were more likely to be sexually assaulted in the victim's house (77% vs. 69%).[27] Employed participants were more often sexually assaulted in open

fields than the unemployed (53% vs. 31%), although this was also not statistically significant with logistic regression. These findings showed that an African person younger than 20 years was more likely to be sexually assaulted in the perpetrator's place, which was similar to the findings in one of the studies done in Lagos, where sexual assault of younger participants took place in neighbourhood homes.[30] There is therefore future need for more resources to be deployed towards sexual assault prevention programmes in the West Rand Health District.

5.2.4 Knowledge of the perpetrator

It came to the fore that 59.3% (n=297) of the participants knew who the perpetrator was, which also meant that in at least two out of every five cases, the victims who came to the hospital did not know who sexually assaulted them. This percentage was higher than the finding in the Dhaka city study (44%, 101/230),[26] but lower than that of the south-west Nigeria study (73.1%).[30]

Participants younger than 20 years knew the perpetrator when compared to those older than 20 years (p =0.00). This was similar to the Nigerian study where girls of less than 19 years were sexually assaulted by neighbours and blood relatives.[30]

Unemployed participants knew the perpetrator when compared to employed participants (p =0.01). More than half of the participants who were unemployed were people younger than 20 years. Therefore, parents of adolescents and young children should be more aware of their responsibilities of protecting their wards from sexual assault by relatives and close friends.

In the current study, males, when compared to females, generally knew the perpetrators (p =0.01), as most of the males in this study came from juvenile detention facilities and were sexually assaulted by fellow inmates. This differed from the Honolulu study, where it was reported that males were sexually assaulted more often by relatives compared to females (38.4% vs. 22.2%).[27] Possible reasons for the male participants in the current study being unable to resist the perpetrator might have been that the perpetrators were older and were in detention for serious crimes, making them extremely intimidating to the participants. Even though there were relatively few males in this study, sexual assault was definitely present in our setting, and was similar to the Nigerian study.[25] Married participants were less likely to know the perpetrators when compared to unmarried participants (p = 0.00). It is therefore recommended that preventive and educational activities be carried out in the relevant detention homes and prisons.

5.2.5 Perpetrator numbers

In seventy-nine percent (n=396) of the cases enrolled into this research, there was only one perpetrator involved. This figure is comparable to the one reported in an Egyptian study, where one assailant was responsible in 80% of all cases.[32] However, nine percent (n=47) of the participants reported to Leratong Hospital that they had been assaulted by three or more assailants: this was similar to the Dhaka city study (5%).[26] The other study done in Lagos, Nigeria indicated that perpetrator numbers ranged from 1 to 9.[30] Although, the majority of participants in the current study were sexually assaulted by one perpetrator, these data about incidences of gang rape mean that further studies are needed to identify the possible causative factors, and to proffer solutions.

5.2.6 Perpetrator strategy

Research data in the current study showed that 50% of the participants (n=252) reported being overpowered by physical force during sexual assault, followed by the threat of death/bodily harm (26%, n=132), and deception (20.6%, n=103). These finding are totally different from the 5-year retrospective study done in Lagos (physical force 28.7%, threat 35.5% and deception 24.1%). From the above figures it can be seen that while the proportion of participants who were deceived before being sexually assaulted was similar in both studies, the use of physical force was much more common in South Africa. In the current study, deception was more commonly used in under-aged participants, amounting to a raw figure of 103/179 amongst children who were 15 years old or younger.

Although physical force was reported as the most common strategy, threat of death or bodily harm was statistically significant with age, education and employment. Participants older than 20 years were 1.8 times more likely to be threatened when compared to those younger than 20 years of age (p =0.00). Educated participants were 11 times more likely to be threatened with death or bodily harm when compared to uneducated ones (p =0.03). Employed participants were 1.6 times more likely to report being threatened with death or bodily harm when compared to the unemployed participants (p =0.00). Usually, educated and employed people are more likely to resist sexual assault; this probably explains why perpetrators adopt threats of death or bodily harm to overcome this real or perceived resistance. The Honolulu study showed that females more than males reported the use of physical force as a strategy by the perpetrator and even though this was also the case in the current study, it was not found to be statistically significant (p =0.07). Therefore unemployed,

uneducated females younger than 20 years of age should be aggressively targeted during awareness campaigns.

5.2.7 Weapon use/weapon type

In twenty-five percent (n =123) of all cases there was use of a weapon during sexual assault. Knives (54.5%, 67/123) were the most common weapon used, followed by guns (30.9%, 38/123). Other weapons used during sexual assault included screw-drivers, empty/broken beer bottles, sjamboks (whips) etc. There was a paucity of studies for comparison.

From the current study, one can say that threats to kill were carried out mainly through the use of weapons, especially knives.

Participants older than 20 years were three times more likely to report that they were threatened with a weapon during sexual assault when compared to the younger participants (p =0.00). Guns were 3 times, knives 2.4 times, and other weapons 4.4 times more likely to be used during sexual assault on participants older than 20 years compared to younger ones. This finding was similar to that of the Honolulu study where the older victims reported use of weapons (p <0.00).[27] Females were more likely to report use of weapons when compared to males (25% vs. 5%), although this was not found statistically significant. The employed participants were 2.5 times more likely to report use of weapons when compared to the unemployed (p =0.00**).** All the above data confirmed that weapons were frequently used by perpetrators during sexual assault in the West Rand in 2014.

5.2.8 Non-genital injury

Sixteen percent (n=81) of the participants sustained non-genital injuries during the sexual assault, similar to the Dhaka city study (13%, 30/230).[26] Although physical force was the most common strategy used in the current study (50%, n=252), the findings in terms of non-genital injuries did not confirm it.

Participants older than 20 years were four times more likely to sustain non-genital injuries when compared to those younger than 20 years (p =0.00). Married participants were 3.6 times more likely to sustain non-genital injuries than single participants (p =0.00), while employed participants were 2.5 times more likely to sustain non-genital injuries than the unemployed (p =0.00). Female victims reported non-genital injuries when compared to males in the Honolulu study (p <0.05),[27] but this was not significant in our study. Overall, the findings

were small in terms of non-genital injuries, which suggested that most participants probably succumbed to sexual assault without much resistance.

5.2.9 Use of condom by the perpetrator

Seven percent of the participants reported use of a condom by the perpetrator (n=36). It was difficult to find any other research papers showing condom usage by perpetrators for comparison. However, data on condom usage by perpetrators was routinely collected from patients reporting to the Crisis Centre of Leratong Hospital. This study showed that few perpetrators used condoms during sexual assaults.

5.2.10 Alcohol use by the participant

Twenty-five percent (n=126) of the participants reported use of alcohol in the period leading up to the sexual assault: this was slightly higher than the percentage reported in the Honolulu study, at 21.1%.[31]

Although there was no definitive time frame specified for the period before the sexual assault occurred, an American study indicated that in their research, approximately half of all sexual assault victims admitted that they had been drinking at the time of the sexual assault, and estimates were between 30% to 79%.[33, 34] It has also been acknowledged that consumption of alcohol in a woman heightened her risk of been sexually assaulted.[16]

Participants older than 20 years were 3.4 times more likely to have used alcohol before sexual assault than those younger than 20 years (p =0.00). This was probably due to the fact that the legal alcohol consumption age restriction in South Africa is 18 years and above. During the year of the current study, 1.6% (n=8) of participants also reported that their drink was spiked.

5.2.11 Individual the victim first spoke to after the sexual assault

Forty-seven percent (n=236) of the participants reported first to the police/HCW in the hospital. This could have been because the police stations in Mogale City as well as the hospital, were in easily accessible locations to most of the populace, and most of the participants (51%) were from Mogale City. The proportion of study subjects who first reported to the police was much higher in the Honolulu study at 68.9%, but it was not stated whether they reported first to the police before going to the sexual assault treatment centre.[27] However this same statistical report stated that amongst all serious violent crimes, sexual assault and rape was the least likely to be reported to the police.[27]

In the current study, the percentage of those documented to have reported first to their mother amongst the victims was 19% (n=95). Others reported first to their colleague/teacher/friend/pastor (13.2%, n=66), other family (12.2%, n=61), and husband/boyfriend (2.8%, n=14) amongst others. The participants were generally more likely to report sexual assault first to the police, followed by reporting to their mother.

Participants older than 20 years were 13.6 times more likely to report to the SAPS/HCW than their mothers when compared to those younger than 20 years (p =0.00), and they were also 10 times more likely to report to their colleague, teacher, or friend than to their mothers (p =0.00). Married participants were three times more likely to speak to a neighbour or husband than their mothers when compared to unmarried people (p =0.04). Employed participants were three times more likely to speak to their husband/boyfriend than their mother when compared to the unemployed (p =0.00). These results highlight the need to educate the general populace that irrespective of who they first report to after an incidence of sexual assault, there is always the need to go to the SAPS or to the hospital as soon as possible.

5.3 LIMITATIONS

- The study design was retrospective and was restricted by the loss of/unavailability of some important data in the participants' files, which affected some of the results. Future studies should be prospective to avoid loss of such vital data.
- This was a hospital-based study, so the findings cannot be generalised to the larger population. Community-based research should be done in the near future in order to compare the findings with this hospital-based study.

CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS

Sexual assault and rape remain a big problem in South Africa and have been widely studied, as can be seen in the literature review of this study. However, only a few studies have investigated the association of demographic features and assault characteristics of sexual assault on the victims. No study had been done in the West Rand Health District on this aspect, therefore the current findings could go a long way in helping to plan preventive and curative measures for sexual assault in the West Rand Health District.

In this study, the majority of participants were single, unemployed, female Africans residing in Mogale City, their first language being Tswana. More than half of them were sexually assaulted between a Friday and a Sunday (18h00 – 06h00), and the majority sought help before 72 hours had elapsed after the assault. Participants younger than 20 years were sexually assaulted in the perpetrator's place/party venue/inside vehicle/detention facility. These participants also knew the perpetrator. Being subjected to threats of death or bodily harm was common amongst people older than 20 years who were married and employed. They also reported weapon use by the perpetrator, non-genital injuries as well as use of alcohol, and had reported to the SAPS/HCW in the first instance.

There is need for holistic evaluation and care for the victims of sexual assault in order to minimise adverse health outcomes. The following recommendations are made to assist in achieving this end.

- Programmes to prevent sexual assault should be targeted at young people, while more efforts should be made to increase the general public's awareness.
- Policymakers and NGOs should be encouraged to have programmes that will help to reduce vulnerability to sexual assault.
- There should be more regular in-service training on sexual assault and the utilisation of management guidelines for district doctors, nurses and community health workers.
- Education and prevention programmes should be planned and implemented in detention facilities.
- Safety and security officials especially the police should consider the risk factors for sexual assault identified in this study and use them to plan targeted interventions.

Annexure 1 – Data collection sheet

Title: Analysis of patients who presented for sexual assault counselling to Leratong Hospital Crisis Centre in 2014.

Code number:				
a. Socio-demographic features				
Number	**Feature**	**Category**	**Documented on file**	
			Documented	**Not documented**
1	**Age in years**			
2.	**Gender**			
3.	**Race**	1- Black		
		2- Coloured		
		3- Indian		
		4- White		
		5- Other: specify		
4.	**Home language**			
5.	**Marital status**			
6.	**With whom was the patient staying at the time of assault?*** *current or last assault only, in case of a previous report of assault.			
7.	**Educational level**			
8.	**Employment status**			
9.	**Place of residence**	1- Merafong		
		2- Mogale North		
		3- Mogale South		
		4- Randfontein		
		5-Westonaria		
		6- Outside West Rand		

b. Assault characteristics		
10.	**Day of Assault** (1.2 of the form)	
11.	**Time of Assault** (2.4 of the form)	
12.	**Day and time of requesting for help** (1.4 of the form)	
13.	**Place of Assault** (2.5 of the form)	
14.	**Perpetrator(s) Known to victim?** (2.7 of the form)	
15.	**Use/type of weapon** (3.4 of the form)	
16.	**Injuries sustained by patient (as specified)** (2.1 of the form)	
17.	**To whom did the patient speak after the attack** (2.2 of the form)	
18.	**Summary of section 2.3 on the following aspects:** • **Number of perpetrators** • **Perpetrator strategy** • **Use of condom by perpetrator** • **Alcohol consumption by the victim prior to assault**	

Annexure 2 – Approval letter from the Director (WRDCA)

14/07/2014 08:53 0119535400 DPT OF HEALTH WRAND PAGE 01/01

GAUTENG PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

Enquiries: Dr Shaikh G K
Tel: 0828571925
Fax: 0866004183

Dr Akintunde Olayiwola
Family Medicine
West Rand District

RE: PERMISSION TO CONDUCT RESEARCH IN WEST RAND DISTRICT.

Your correspondence on the above matter refers.
Thank you for your request to conduct research at Leratong Crisis Center in West Rand District.
Permission is hereby granted to you to conduct research in West Rand District. I am anticpating that you will conduct your research with the knowledge of all relevant Managers. You are expected to share the findings and recommendations with the district in order to improve the service delivery to people of west rand.
I hope you find the above in order.

Yours faithfully,

Pp MS PULENG MUSO
DIRECTOR
WRDCA
DATE:

Annexure 3 – Permission letter, CEO, Leratong Hospital

GAUTENG PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

Leratong Hospital
Private Bag X2078
KRUGERSDORP
1740

Enquiries: Mr G J Dube
Tel: (011)411-3531
Fax: (011)410-8421
Email: GreyD@gpg.gov.za
Ref: 9/3/3/1

Dr Olayiwola

REQUEST TO CONDUCT RESEARCH : ANALYSIS OF PATIENTS PRESENTING FOR SEXUAL ASSAULT COUNSELLING TO LERATONG HOSPITAL CRISIS CENTRE IN 2014

Permission has been granted to conduct research study entitled : "Analysis of patients presenting for sexual assault counselling to Leratong Hospital Crisis Centre in 2014" pending approval from Gauteng Department of Health. For further arrangements contact Dr B J Wojtowicz, 011 411 3504.

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It would be appreciated if you could share your results of the research with the Management of Leratong Hospital.

Thank you for showing interest in our Institution.

Kind regards

LERATONG HOSPITAL
ADCOCK STREET, CHAMDOR
2016 -05- 16
PRIVATE BAG X2078
1740 MOGALE CITY
LERATONG HOSPITAL

CHIEF EXECUTIVE OFFICER
/jve
2016/05/16

CC: DR MOLOI, CLINICAL MANAGER

Annexure 4 – NHRD approval letter

GAUTENG PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

OUTCOME OF PROVINCIAL PROTOCOL REVIEW COMMITTEE (PPRC)

Researcher's Name (Principal investigator)	Dr. Akintunde Olayiwola
Organization / Institution	Wits
Research Title	Analysis of patients who presented for sexual assault counselling to Leratong Hospital "Crisis Centre" in 2014.
Contact number	Address: Contact no: 011 665 5395 Cell: 078 229 0253 Email: akin_lai@yahoo.com
Protocol number	GP_2016RP25_718
Date submitted	2016/03/22
Date reviewed	2016/04/28
Outcome	Approved

It is a pleasure to inform that the Gauteng Health Department has approved your research on "Analysis of patients who presented for sexual assault counselling to Leratong Hospital "Crisis Centre" in 2014".

Study sites: Leratong Hospital

The Provincial Protocol Review Committee kindly requests that you to submit a report after completion of your study and present your findings to the Gauteng Health Department.

Approved/Not approved

Dr. Julia Moorman
Chairperson: PPRC

Date: 25-5-16

Annexure 5 – Ethics approval certificate

R14/49 Dr Akintude Olayiwola

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)

CLEARANCE CERTIFICATE NO. M160214

NAME: (Principal Investigator)	Dr Akintude Olayiwola
DEPARTMENT:	Family Medicine Crisis Centre, Leratong Hospital, Krugersdorp
PROJECT TITLE:	Analysis of Patients Presenting for Sexual Assault Coounselling to Leratong Hospital "Crisis Centre" in 2014
DATE CONSIDERED:	26/02/2016
DECISION:	Approved unconditionally
CONDITIONS:	
SUPERVISOR:	Dr Elizabeth Reji and Dr John Musonda
APPROVED BY:	Professor P. Cleaton-Jones,Chairperson, HREC (Medical)
DATE OF APPROVAL:	27/05/2016

This clearance certificate is valid for 5 years from date of approval. Extension may be applied for.

DECLARATION OF INVESTIGATORS

To be completed in duplicate and **ONE COPY** returned to the Research Office Secretary in Room 10004,10th floor, Senate House/2nd floor, Phillip Tobias Building, Parktown, University of the Witwatersrand. I/We fully understand the the conditions under which I am/we are authorised to carry out the above-mentioned research and I/we undertake to ensure compliance with these conditions. Should any departure be contemplated,from the research protocol as approved, I/we undertake to resubmit to the Committee. **I agree to submit a yearly progress report**. The date for annual re-certification will be one year after the date of convened meeting where the study was initially reviewed. in this case, the study was initially review in February and will therefore be due in the month of February each year.

Principal Investigator Signature _____ Date _____

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES

Annexure 6 – Counsellor Report form (rape crisis)

File no: _____
Counsellor: _____
Doctor: _____

1. GENERAL INFORMATION

1.1 Code number: _____

1.2 Date of assault: _____

1.3 Type of assault: _____

1.4 Date of request for help: _____

1.5 Age: _____

1.6 Gender: _____

1.7 Race: _____

1.8 Language: _____

1.9 Marital Status: _____

1.10 Staying with whom: _____

1.11 Educational level: _____

1.12 Occupation: _____

1.13 Contact no(s): _____

1.14 Address of client: _____
_____
_____

2. SPECIFIC INFORMATION ON ATTACK

2.1 Physical appearance of client (record visible injuries, disrupted clothing, etc) _____
_____
_____

2.2 Who was the first person the client spoke to after the attack?

_____

2.3 Brief description of what the client told the counsellor (Summary)

_____

_____

2.4 Time of attack: _____

2.5 Place of attack: _____

2.6 Year: _____

2.7 Is the perpetrator known to client: _____

3. PERPETRATOR'S INFORMATION (if known to client)

3.1 Race: _____

3.2 Language: _____

3.3 Emotional state (talkative, aggressive, violent, threatening to kill)

_____

_____

3.4 Any weapons used: _____

3.5 Emotional state of the client: _____

4. SAPS/FCS INFORMATION

4.1 Is the incident reported: _____

4.2 Police called or self-reported: _____

4.3 What time did the police come: _____

4.4 Name of investigating officer: _____

4.5 Name of the police station: _____

5. REFERRAL

5.1 Referred to Social Worker/Psychologist: _____

File completed by: _____

6. FEEDBACK/ANY OTHER REMARK(S)_____

_____

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