

**AN INVESTIGATION INTO THE PATTERNS AND TRENDS OF INJURIES  
IN COMMUNITY ASSAULT CASES AT THE TYGERBERG FORENSIC  
PATHOLOGY FACILITY OVER A 10-YEAR PERIOD FROM**

**1 JANUARY 2003 to 31 DECEMBER 2012**

by

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*Dissertation presented in partial fulfilment of the requirements for the degree  
Master of Medicine (Forensic Pathology) at the University of Stellenbosch*



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## **Declaration**

The study described in this dissertation was carried out in the Division of Forensic Medicine, Department of Pathology, University of Stellenbosch, and covers the period 1 January 2003 to December 2012.

The work was done under the supervision of Professor SA Wadee, Head of Department, in the Division of Forensic Pathology.

By submitting this thesis electronically, I declare that the entirety of the work contained therein is my own original work, that I am the authorship owner thereof (unless to the extent explicitly otherwise stated) and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

Signature: Celeste Ingrid Herbst

Date: March 2015

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## **Abstract**

*Background:* An increase in autopsied cases of community assault fatalities has been observed at the Tygerberg Forensic Pathology Services Facility. A paucity of information exists as to the incidence and prevalence of these cases in a South African context.

*Objectives:* To determine the patterns and trends of injuries sustained in so-called community assault fatalities.

*Methods:* A retrospective and descriptive study was conducted. Fatal community assault cases admitted to the Tygerberg Forensic Pathology Facility over a ten year period, from 1 January 2003 to 31 December 2012 were reviewed. Data was collected from autopsy/post mortem examination reports, contemporaneous notes, attached hospital records, SAPS-180 form (completed by South African Police Services representative) and other Forensic Pathology Services (FPS) documentation.

*Results:* A total of 424 cases of fatal community assault were admitted during the study period with an annual increase between 2004 and 2008 and a second peak from 2010 to 2012. The cause of death in majority of cases was due to multiple injuries (42%) with blunt force trauma forming the basis of most of the injuries sustained. The most prevalent areas where these assaults occurred was Khayelitsha (166 cases) and Harare (84 cases) - one of the sub-sections in Khayelitsha. Male subjects were predominantly assaulted with only one female fatality recorded.

*Conclusion:* Adequate policing in prevalent areas is essential, to address the unnecessary loss of life and additional burden on the criminal justice system and health care services.

## **Opsomming**

*Agtergrond:* 'n Toename in die aantal sterftes na beweerde gemeenskapsaanranding is waargeneem by die Tygerberg Forensiese Patologie Dienste Fasiliteit. Min inligting in verband met die insidensie en prevalensie van sulke gevalle in 'n Suid-Afrikaanse konteks is beskikbaar.

*Doelwit:* Om die patrone en neigings van beserings geassosieer met beweerde gemeenskapsaanranding-sterftes te bepaal.

*Metodes:* 'n Retrospektiewe en beskrywende studie is uitgevoer. Gevalle van sterftes na beweerde gemeenskapsaanranding wat opgeneem is by die Tygerberg Forensiese Patologie Dienste Fasiliteit oor 'n tien-jaar tydperk, vanaf 1 Januarie 2003 tot 31 Desember 2012, is hersien. Data is versamel van outopsie/post-mortem verslae, kontemporêre notas, aangehegde hospitaal-rekords, SAPD-180 vorm (wat deur 'n verteenwoordiger van die Suid-Afrikaanse Polisie ingevul word) en ander Forensiese Patologie Dienste (FPS) dokumentasie.

*Bevindinge:* Oor die tien-jaar studietydperk is 424 gevalle van sterftes na beweerde gemeenskapsaanranding gesien, met 'n jaarlike toename in gevalle tussen 2004 en 2008 en 'n tweede piek in die aantal gevalle gedurende 2010 en 2012. Die oorsaak van dood in die meerderheid gevalle was as gevolg van veelvuldige beserings, met stomp geweld, die mees algemene tipe oorsaak van beserings. Die areas waar hierdie tipe gevalle mees algemeen voorgekom het, was Khayelitsha (166 gevalle) en Harare (84 gevalle) – een van die sub-seksies in Khayelitsha. In die meerderheid van gevalle is mans aangerand, en slegs een vroulike sterfte-geval is gevind.

*Afleidings:* Voldoende polisiëring is nodig in prevalente areas om die onnodige lewensverlies en die addisionele lading op die kriminele regsisteem en gesondheidsorgdienste aan te spreek.

## **Acknowledgements**

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## **LIST OF ABBREVIATIONS**

The following abbreviations are frequently used throughout this study:

**CA** – Community assault

**FPS** – Forensic Pathology Services

**DNA** – Deoxyribonucleic acid

**SAPS** – South African Police Services

**W Cape** – Western Cape

## GLOSSARY

The following terms are used throughout the study and are described below:

**APARTHEID:** (in South Africa) The official government policy of racial segregation; officially renounced in 1992. <sup>1</sup>

**BUNDU:** South African and Zimbabwean slang for a largely uninhabited wild region far from towns. <sup>2</sup>

**KANGAROO COURT:** Any crudely or irregularly operated court, especially one so controlled as to render a fair trial impossible. <sup>3</sup>

**LEKGOTLA:** (in South Africa) A meeting place for village assemblies, court cases and meetings of village leaders. <sup>4</sup>

**LODOX:** Low dose X-ray. <sup>5</sup>

**NECKLACING:** The act of killing someone by placing a tyre around his or her neck, dousing it with a flammable liquid and then setting it alight. <sup>6</sup>

**SJAMBOK:** A heavy whip originally made from rhinoceros or hippopotamus hide or any synthetic version thereof. <sup>7</sup>

**TRAMLIN BRUISE OR CONTUSION:** A type of bruise inflicted when the skin is struck by a cylindrical object and is represented by a pale linear central area lined on either side by linear bruising. The mechanism involved is that the skin surface is indented and blood vessels at the edges are ruptured. Blood is squeezed out of any vessels along the point of contact, but the vessels remain relatively intact (particularly if the supporting tissues are lax). When the impacting object is removed, blood flows back into the undamaged vessels, but leaks from the damaged ones. <sup>8</sup>

## Chapter 1

### Introduction

#### 1.1 Background

Violence remains the leading cause of death in South Africa, accounting for more than one third of all unnatural deaths. (National Injury Mortality Surveillance System, 2008) <sup>9</sup>

Community assaults (CA), also known as “bundu or kangaroo courts” and sometimes “mob killings or vigilante justice,” have contributed to this high incidence of violence with an increase in these deaths autopsied annually. These fatalities are attributed to community members who are allegedly dissatisfied with the lack of adequate law enforcement and take the law into their own hands by punishing alleged criminals prior to being arrested and tried.

These unauthorized forms of lawfulness originated in Black rural communities during the apartheid regime and also has deep roots stemming from the customary urban traditions such as “lekgotla,” a form of “restorative justice.” <sup>10,11</sup>

Much focus had been placed on these community assault cases in the South African media reports lately, with particular emphasis on the fact that these practices of community instigated retribution are endemic to the South African townships. Sometimes they are also referred to as “people’s courts” or “community justice”, and viewed as a variant of vigilantism, as seen in some other developing countries. Newspaper reports emphasize the spontaneity of these “mob killings” with very few “bundu court” killings noted - where informal hearings were given to suspected perpetrators. These so-called acts of “vigilantism” were a significant topic during the Khayelitsha Commission of Inquiry, which was held in 2014. <sup>12</sup>

An increase in the number of these community assault cases was noted at the Tygerberg Forensic Pathology Services Western Cape (FPS WCape) with the occasional observation of the so-called “necklace killings,” whereby victims of this type of assault are set alight by placing a motor vehicle tyre around their neck, dousing it with a flammable liquid and setting it alight. This practice of “necklacing” started during the apartheid era with the first necklace killing reported in Port Elizabeth in 1985. <sup>13</sup>

No formal statistics as to the incidence of this problem of community assault cases exist in the South African setting.

This study aims to demonstrate the pattern of injuries documented during the autopsies of these community assault cases. In addition, to highlight the prevalent communities where this practice is being followed in certain areas of Cape Town, covered by the study.



## **1.2 Aims and objectives:**

The primary aim of this study is:

- To determine the patterns of injuries sustained in “community assault” cases over a 10 year period, from 1 January 2003 to 31 December 2012 at the Tygerberg Forensic Pathology Facility.

The secondary aims of this study are:

- To ascertain whether there has been a true increase in community assault deaths.
- To determine the temporal profile of the cases reported as cases of “community assault”, including age, gender and geographical area where assaulted.
- To alert forensic pathologists to the types of injuries encountered in these cases and assist clinicians to diagnose and treat these injuries appropriately.
- To determine the difficulties that may be encountered at autopsy and to consider the additional burden of special investigations.

## **1.3 Brief chapter overview**

This introductory chapter provides a background to this study as well as presenting the study aims.

Chapter Two provides a summary of the relevant literature articles that provide a basis and rationale for this study and helps with understanding these community assault fatalities.

In Chapter Three, details of the data collection and analysis are outlined, together with the ethical considerations.

The research findings will be presented in Chapter Four to Six and will be presented using relevant histograms. Chapter Four covers the demographic details of the cases, Chapter Five represents the data related to the injuries sustained and Chapter Six focuses on the additional investigations done at autopsy in these cases.

In Chapter Seven, the study findings and summary of the research will be discussed, together with future recommendations/research and limitations of this study.

## Chapter 2: Literature Review

### 2.1 Introduction

Community assault (CA) is the term given to the act of assaulting and punishing suspected perpetrators caught for any alleged wrongdoing such as robbery or theft. These assaults are carried out by members of the community with the purpose of injuring the victims, and/or causing their demise. Simultaneously, it may be interpreted as an appeal for help from the community members who are despondent with the high level of criminal activities and the lack of adequate law enforcement in their particular communities. It serves as an example of taking the law “into their own hands.”<sup>14</sup>

Minnaar et al listed the various practices of “vigilante activities” in South Africa and listed some of the following:

- Impulsive “mob style” response to circumstances involving instant reprimand.
- “Caught in the act” reaction whereby a lawbreaker is apprehended whilst committing a crime, beaten and assaulted by members of the community before being arrested by the police.
- “Kangaroo court activity” whereby alleged perpetrators suspected of committing certain crimes are brought before a “neighbourhood committee” and sentencing is carried out by the members of this court or the complainants.
- “Public response” whereby criminals are assaulted in full view of a big group of supporters.<sup>15</sup>

Monaghan et al in comparing community-based justice between Northern Ireland and South Africa, also emphasized these impulsive “mob” attacks in the South African Black communities/rural areas whereby suspected perpetrators were assaulted by the community. The results of these attacks were usually severe and often fatal and included “stoning” or “beating” these alleged criminals. These “informal justice mechanisms” were instituted by the residents of these communities as a reaction to the violent nature of crime within that particular area.<sup>10</sup>

A study conducted by Ng'walali et al in Tanzania, used the term “mob justice” for the above-mentioned community assaults and attributed these to redundancy, poor socio-economic circumstances as well as a “failing judicial system.” The average number of these cases during a 5 year period was approximately 250 cases annually on a national level, with the majority of the victims aged between 15 and 40 years. The patterns of injury involved were mostly caused by blunt force trauma due to being stoned and 48% of the cases involved burn-related injuries. In 95% of cases, mob killings were precipitated by alleged theft .<sup>16</sup>

Rosedale et al, coined the term “vigilante justice” for these community assaults in KwaZulu-Natal. These victims predominantly showed evidence of blunt force trauma in the form of “tramline bruises” secondary to being hit with a “sjambok” or cylindrical object and generalised bruising over the body with resultant rhabdomyolysis. The outcome of this study was to alert clinicians to the classical presenting injuries in community assault victims, as well as to the appropriate detection and treatment of the possible complications.<sup>17</sup>

A study conducted in 1994 by Lerer et al, recorded that 30% of the mortality rate during the period studied was due to violent deaths, with homicidal deaths accounting for 46% of the unnatural deaths during that period. The authors felt that the autopsy was beneficial for highlighting injuries and enhancing emergency care in a hospital environment. This once again illustrates the importance of autopsy findings in assisting clinicians to effectively manage those community assault victims that present to hospital.<sup>18</sup>

In a study conducted by Lang et al, the term “necklace murders” was created. This is the practice whereby a motor car tyre was placed around the neck of the victim, doused with a flammable substance such as petrol and set alight. This form of CA originated during the “apartheid” era in townships in Port Elizabeth as early as 1985. These murders were carried out due to disagreements between “black political groups.” The victims of these murders were individuals suspected of co-operating with the government of the day and included police officials. “Kangaroo courts” were held where these victims were put on trial as if in court and if “guilt” was determined, they were “sentenced to death” by this practice of “necklacing”. Many of the victims were murdered prior and then set alight. The use of tyres was adopted because these were easily available in the Black communities or rural areas. It was felt that these burning tyres, covered in flammable substances such as petrol, caused sufficient heat for the entire body to be burned, hence concealing injuries and the identity of the deceased. In this study by Lang et al, autopsies were done on 60 cases of “necklace murders” during 1985, 73 cases in 1986 and a dramatic decrease in 1987 with only 2 cases. The majority of the victims were black males between the ages of 21 to 30. Major injuries were related to either sharp or blunt force trauma. Autopsy findings also demonstrated that the limbs of the deceased were tied using wire in some cases.

These “necklace murders” caused major problems at autopsy, such as:

- Difficulty in identifying the bodies and determining race secondary to extensive charring.
- Complexity in establishing identity by using “dental records” as majority of the victims had presumably not visited a dentist.
- Body measurements such as weight and height were inaccurate due to “burn-related contractures” and other injuries.
- The forensic pathologist was obliged to submit blood for carboxyhaemoglobin levels in addition to the routine blood alcohol concentration.
- Difficulty in determining and documenting pre-existing injuries and exclusion of burn artefacts.
- Difficulty in determining whether the deceased was alive or dead prior to being “necklaced”.

The above problems highlight the extra burden that these type of cases place upon the attending forensic pathologist/forensic medical officer. <sup>13</sup>

In a study done by Duflou et al, Salt River mortuary in Cape Town, autopsies were performed on 28 cases of “necklace” killings in the first six months of 1986. The majority of these decedents sustained blunt and sharp force trauma as well. <sup>19</sup>

In another study conducted by Lerer et al, they mention that the features of “necklacing” seen at autopsy besides the burns, were metal wires representing the metal rim of the tyres used and rubber remnants present around the victims’ necks. Only 5 cases of “necklacing” were seen during this two year study period from 1991 to 1992. The authors also felt that using dental records was the most accurate means of identifying these victims. This study highlighted the fact that these “necklacings” and so-called community assaults were more prominent in the late 1980’s. <sup>20</sup>

A recent study done by Forgas et al, reviewed the community assault versus non-community assault cases presenting to hospitals or clinics in Khayelitsha, Western Cape, over a five month period in 2012. The results of the study show that the seriousness of injuries was far worse in the community assault cases than the non-community assault cases. This was also one of the few studies done in South Africa that attempted to highlight the seriousness of injuries and prevalence of community assault cases, however this was done in a clinical setting. The study also suggests community assault as being a form of “interpersonal violence” in South Africa and emphasizes the fact that little data exists about the prevalence of this practice presently. <sup>11</sup> This forms the basis of this retrospective study.

## Chapter 3: Method

### 3.1 Research Design

This was a retrospective and descriptive study. Fatal community assault cases presenting to the Tygerberg Forensic Pathology Facility from 1 January 2003 to 31 December 2012 were reviewed.

### 3.2 Research Instruments

The study population included all referred cases of deaths secondary to “community assault” to the Tygerberg Forensic Pathology Facility over a ten year period from 1 January 2003 to 31 December 2012.

- Inclusion criteria:

All cases referred for a medico-legal autopsy to the facility, whereby:

- A history of community assault/bundu court/kangaroo court exists, as stipulated in the final autopsy/post mortem examination report, SAPS (South African Police Services) 180 form (police report that accompanies the body to the mortuary completed by SAPS officials), TH13 or FPS (Forensic Pathology Services) 100 forms (confidential report issued and completed by treating medical practitioners in cases of suspected unnatural deaths), interview questionnaires completed by the Forensic Pathology Officer, available hospital records attached to the post mortem examination report and where available, a verbal history relayed by the investigating officer involved in the case or a relevant South African Police Services representative.

- Exclusion criteria:

All cases referred for a medico-legal autopsy to the facility, whereby:

- No definite history of community assault/bundu court/kangaroo court was found after perusal of the final autopsy/post mortem examination reports, contemporaneous notes, collateral information by police and attached hospital records eg. cases of other traumatic deaths (gunshot wounds, assaults, multiple injuries).
- The final autopsy/post mortem examination report is not completed or unavailable.

### 3.3 Data

All data collection was performed by the principal investigator, Dr Celeste Herbst, by retrieving and evaluating the case files of forensic autopsies performed at the Tygerberg Forensic Pathology Facility from 1 January 2003 to 31 December 2012.

Data was gathered by reviewing the following documents:

- Final autopsy/post mortem examination report.
- SAPS 180 Form completed by SAPS official.
- TH13/FPS100 Form (summary of clinical findings, and medical/surgical treatment), when available, completed by the treating medical practitioner in cases where the deceased was hospitalized prior to death.
- Copies of hospital records, if available and attached to the autopsy/post mortem examination report - these would have been available at the time of autopsy.
- Interview questionnaires completed by the Forensic Pathology Officers, during an interview with relative(s) of the deceased, if available.

- Any additional statements added to the autopsy report, if available.
- Copies of laboratory results, if available and attached to the autopsy report.

In all cases of community assault, the following categories of information were entered by the principal investigator on a Microsoft Excel spreadsheet:

- **Demographic details:**

- Age
- Sex
- Race (if available)
- Suburb/township where the assault allegedly occurred

- **Details regarding the death:**

- Date of death
- Time of death
- SAPS station involved in investigating the case

- **Autopsy details:**

- Autopsy date
- Injuries sustained
- Cause of death as stipulated on the autopsy/post mortem examination report
- Was the identity of the deceased known at the time of autopsy



- Blood taken for DNA testing
- Special investigations performed at autopsy
- Blood/vitreous alcohol level (where possible)

### **3.4 Data analysis**

The statistical analysis was performed by the author in conjunction with Professor Martin Kidd, from the Department of Statistics, University of Stellenbosch.

A summary of the statistics was done by constructing frequency tables for categorical variables, and calculating means and standard deviations for continuous data. Results were graphically depicted using histograms.

### **3.5 Ethics**

All information used in this study was anonymised. Each individual case used was assigned a study number and the information was stored on a password-protected computer in the Division of Forensic Medicine, Department of Pathology, Faculty of Medicine and Health Sciences, University of Stellenbosch.

Ethics approval was obtained from the Health Research Ethics Committee (HREC) of the Faculty of Medicine and Health Sciences, University of Stellenbosch (Ethics reference no: S13/09/162).

Permission to conduct this study, utilization of the post mortem examination report and waiver of consent granted for the data collection in this study was given by The Director: Western Cape Forensic Pathology Services, Mrs V Thompson.

## Chapter 4: Demographics

### 4.1 Introduction

The Tygerberg Forensic Pathology Services (FPS) medico-legal laboratory provides services to specified areas within Cape Town. (Refer Table 4.1)

**Table 4.1 – Areas serviced by the facility**

<b>Area</b>
Belhar
Bellville
Bellville-South
Bishop Lavis
Bonteheuwel
<del>Bothasig</del>
Brackenfell
Delft
Durbanville
Elsies River
Goodwood
Harare
Khayelitsha
Kleinvele
Kuilsriver
Kraaifontein
Lingeletu-West
Mfuleni
Parow
Ravensmead

This facility has seen an increase in the total number of autopsy/post mortem cases over the years studied. (Refer Table 4.2)

**Table 4.2 - Number of admissions to Tygerberg Forensic Pathology Facility per year reviewed.**

<b>Year</b>	<b>Number of admissions</b>
2003	2625
2004	2559
2005	2707
2006	2850
2007	2619
2008	2904
2009	2773
2010	2774
2011	2802
2012	3058

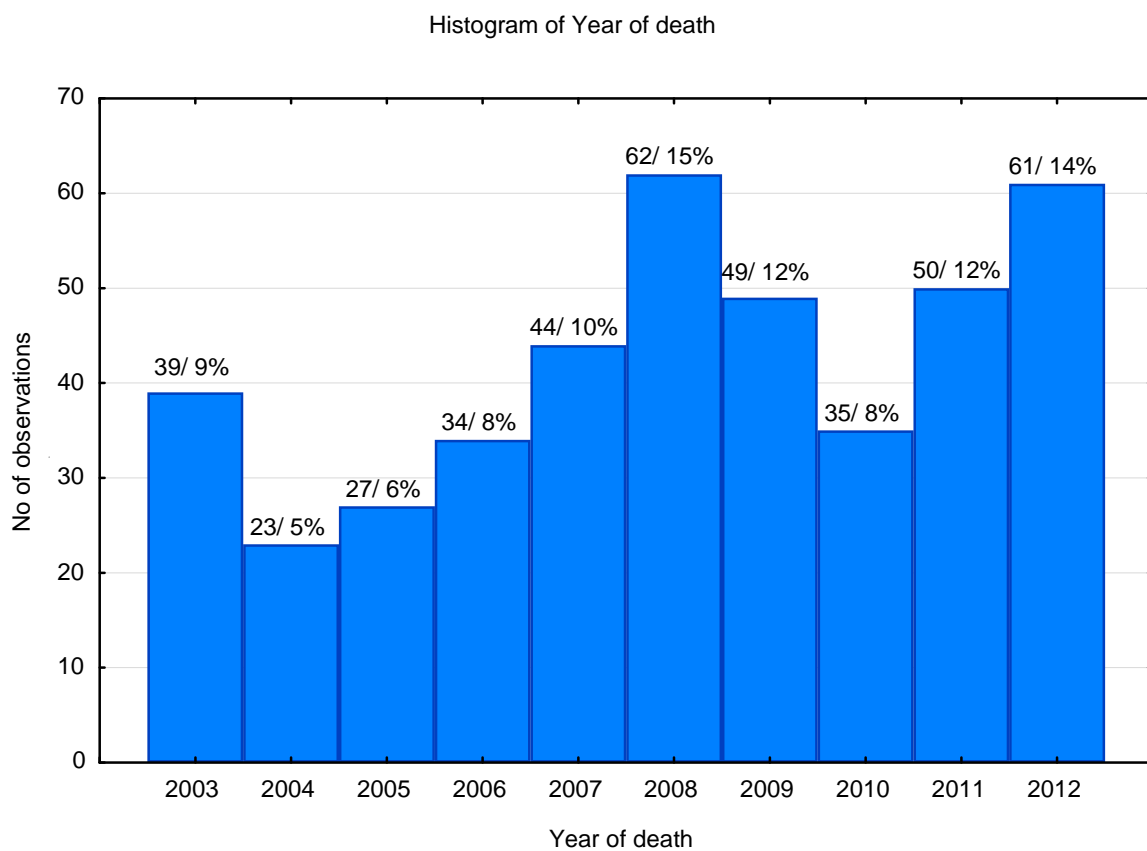
During this 10-year period, a total of 424 cases of “community assault” were reported to Tygerberg Forensic Pathology Services, constituting on average, 5% of the total of assumed homicidal deaths autopsied annually (Refer table 4.3)

**Table 4.3 – Number of homicidal and community assault deaths per year**

<b>Year</b>	<b>Number of homicidal deaths</b>	<b>Number of community assault deaths and percentage (of total homicidal deaths)</b>	
2003	971	39	4%
2004	809	23	2.8%
2005	926	26	2.8%
2006	996	34	3.4%
2007	978	44	4.5%
2008	825	62	7.5%
2009	760	49	6.4%
2010	650	35	5.4%
2011	810	50	6.2%
2012	906	61	6.7%

## 4.2 Total number of community assault cases per year

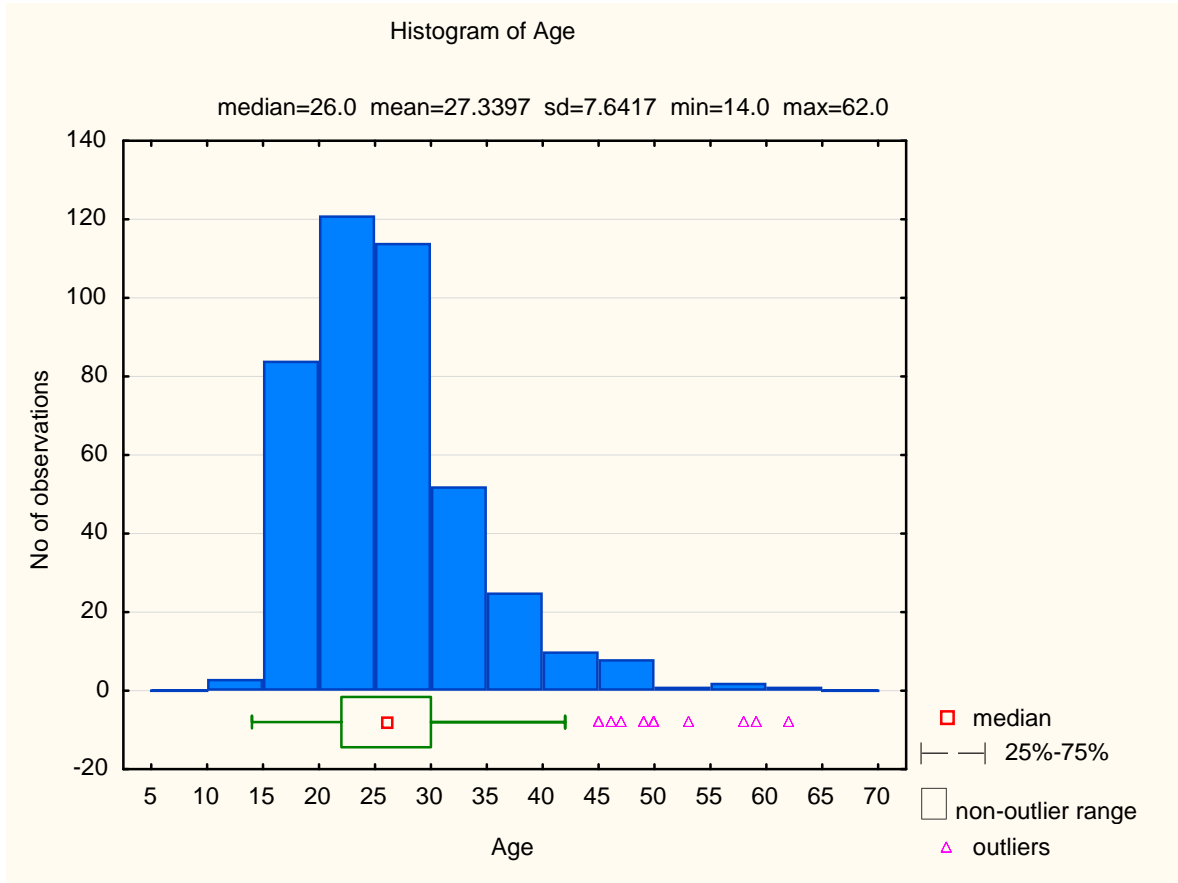
Figure 4.1 – Total number of community assault cases



### 4.3 Age distribution of cases

The mean age of the total study population was 27.3 years (age range 14-62). The median age was 26 years. (Refer figure 4.2).

**Figure 4.2 – Age distribution of community assault cases**



#### 4.4 Sex distribution of cases

**Figure 4.3 – Sex distribution of community assault cases**

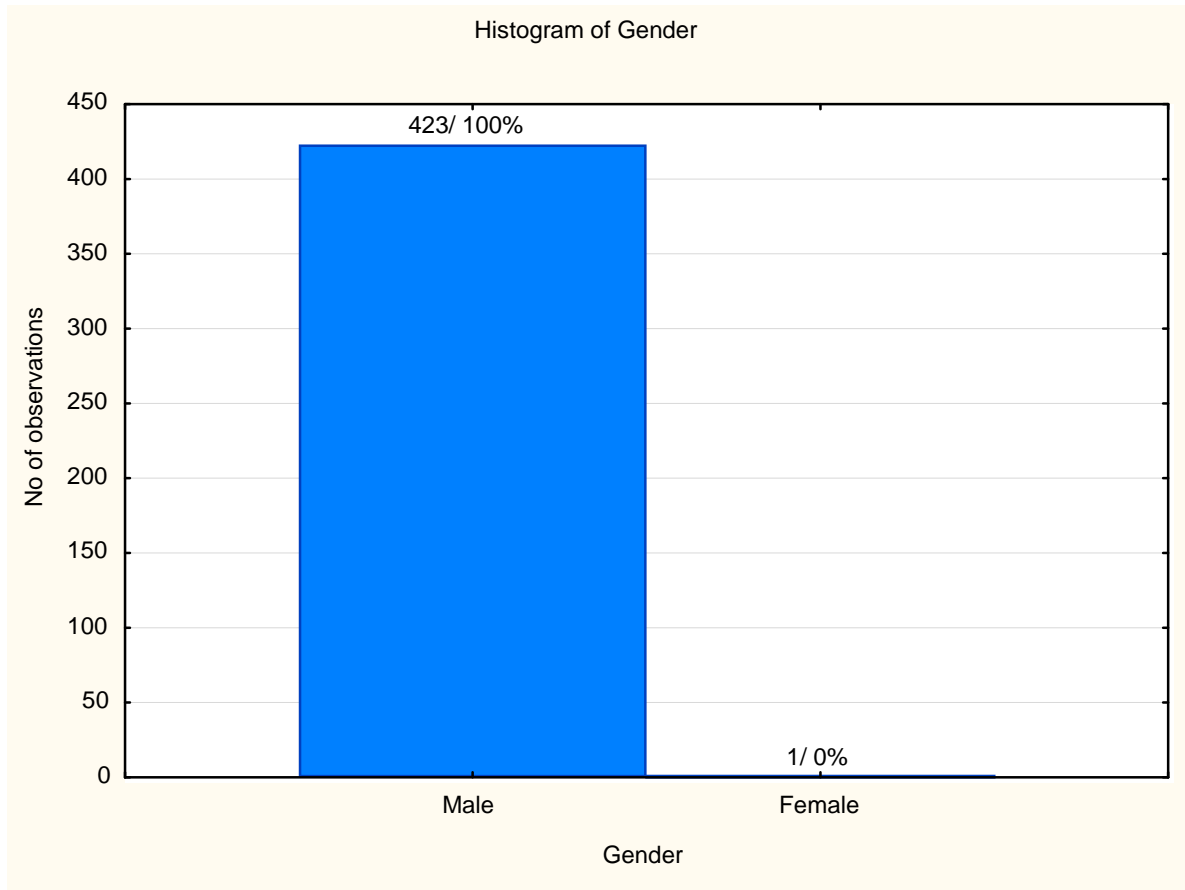
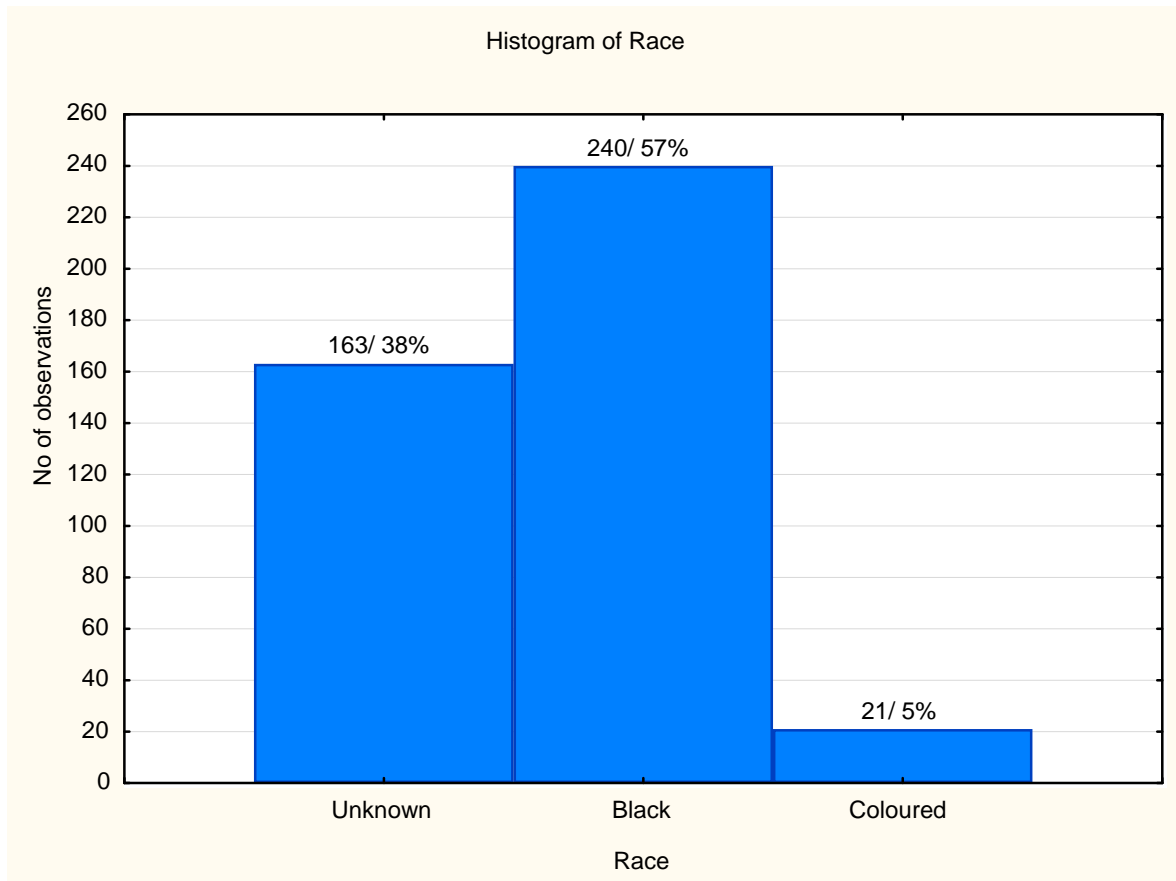


Figure 4.3 refers. Males comprised almost 100% of the community assault cases with only one female recorded in the study.

#### 4.5 Racial distribution of cases

Figure 4.4 refers. The Black African population constituted the majority of community assault cases/fatalities followed by the Coloured population. Race was unknown or not specified on the autopsy/ post mortem examination report in 38% of cases.

**Figure 4.4 – Racial distribution of the community assault cases**

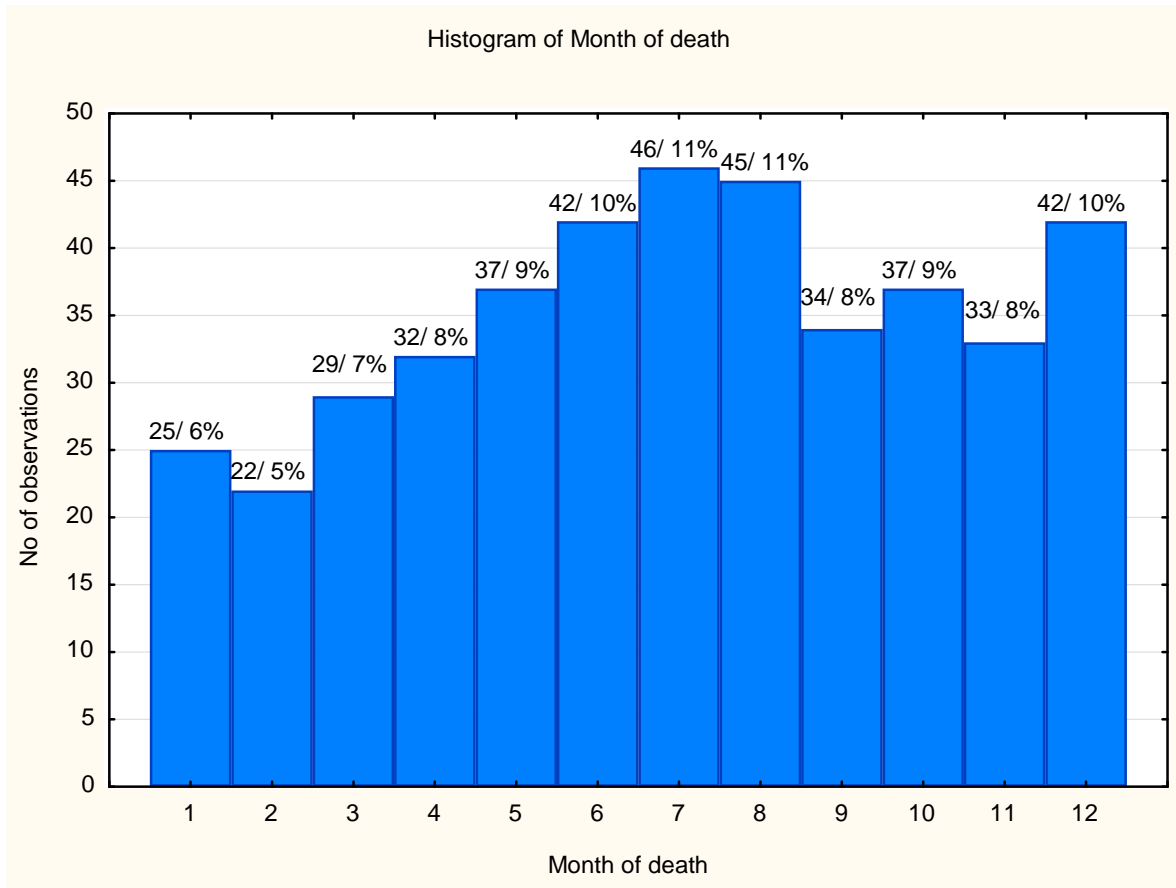




#### 4.6 Months when community assault deaths were more prevalent over the study period.

Community assault deaths were more prominent in the winter months of June to August with a second peak in December. Figure 4.5 depicts the distribution of community assault deaths per month over the study period.

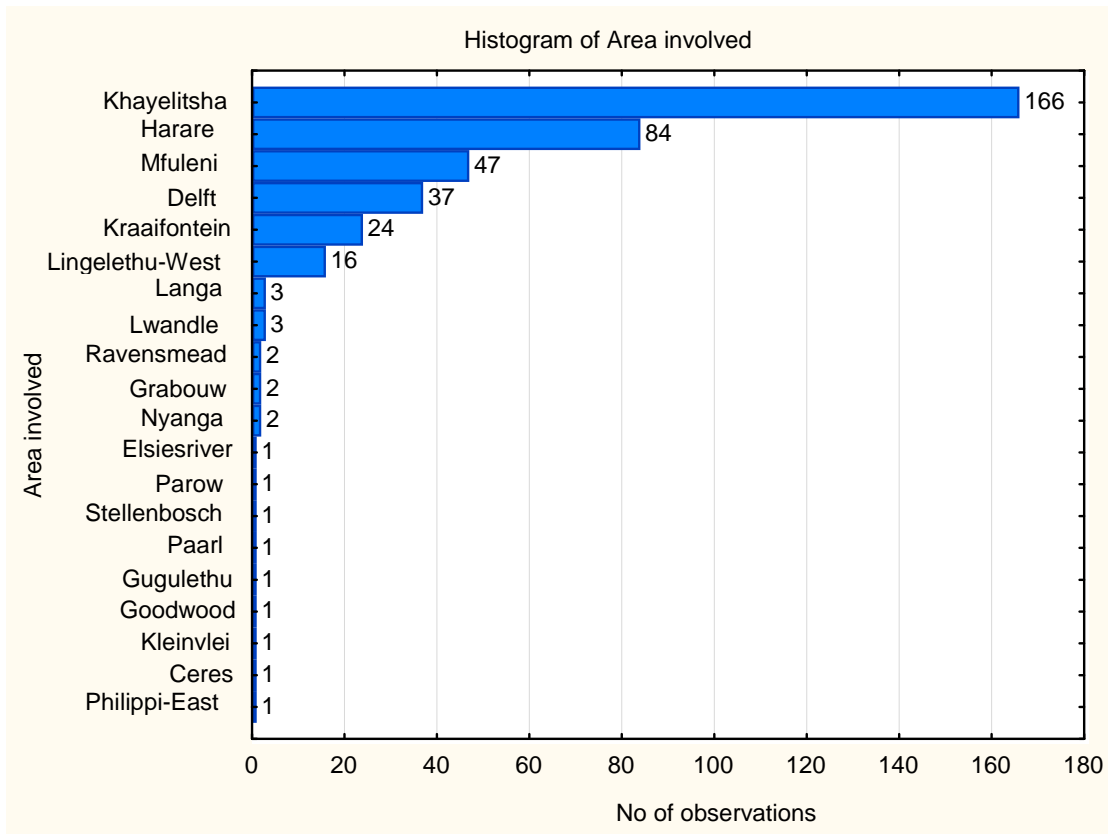
**Figure 4.5 – Months when community assault deaths were more prevalent**



#### 4.7 Areas where the community assaults occurred

Figure 4.6 depicts the areas where the fatal community assault occurred. Majority of the fatal community assault cases occurred in Khayelitsha (39%), followed by Harare (sub-section of Khayelitsha) (20%), Mfuleni (11%), Delft (9%), Kraaifontein (6%) and Lingelethu-West (sub-section of Khayelitsha) (4%).

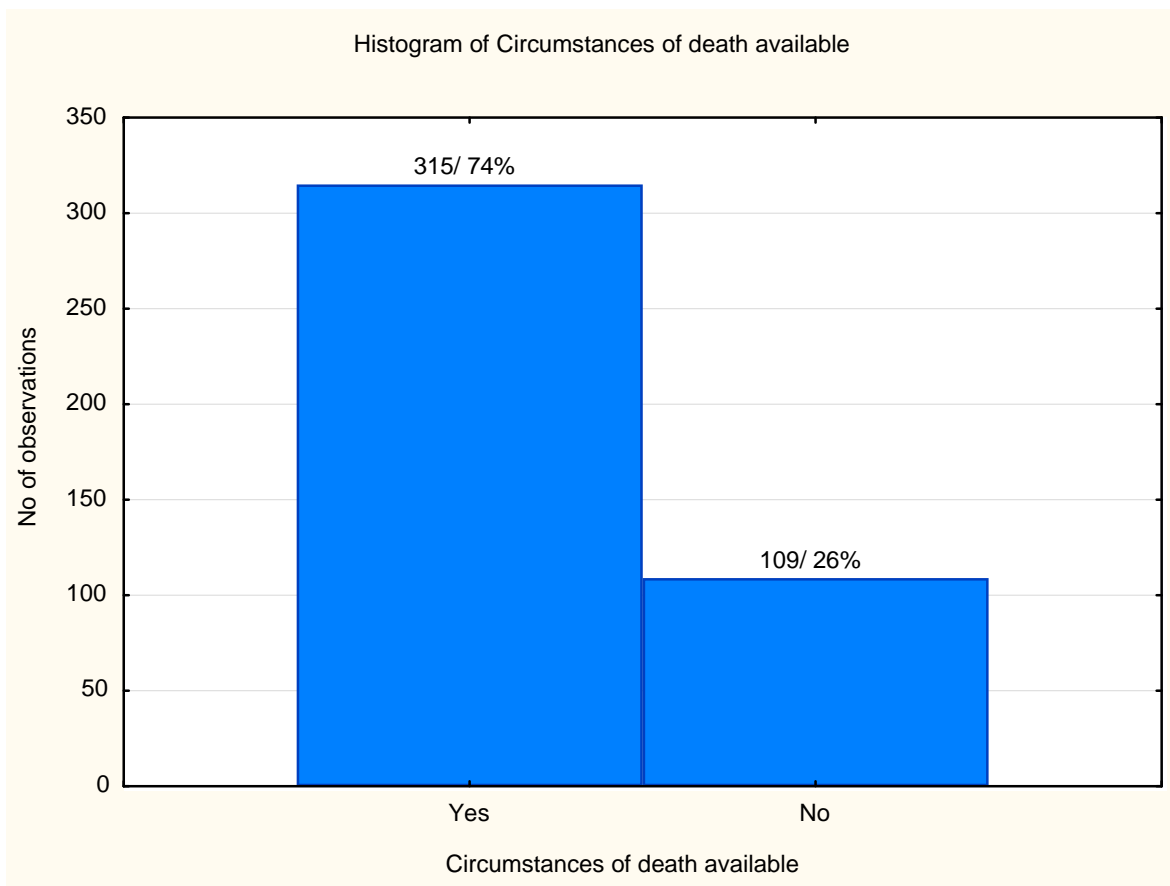
**Figure 4.6 – Distribution of community assault cases per area involved**



#### 4.8 Circumstances of death

Figure 4.7 depicts that in 74% of the fatal community assault cases, a true history of community assault existed and was stated on the SAPS 180 form whereas in 26% of cases, a history of community assault was presumed by treating clinicians. Other presumed cases were based on the injuries sustained and/or blood stained objects found at the scene of death, as noted by South African Police Services officials.

**Figure 4.7 – Circumstances of death available on autopsy report**



## Chapter 5: Injuries

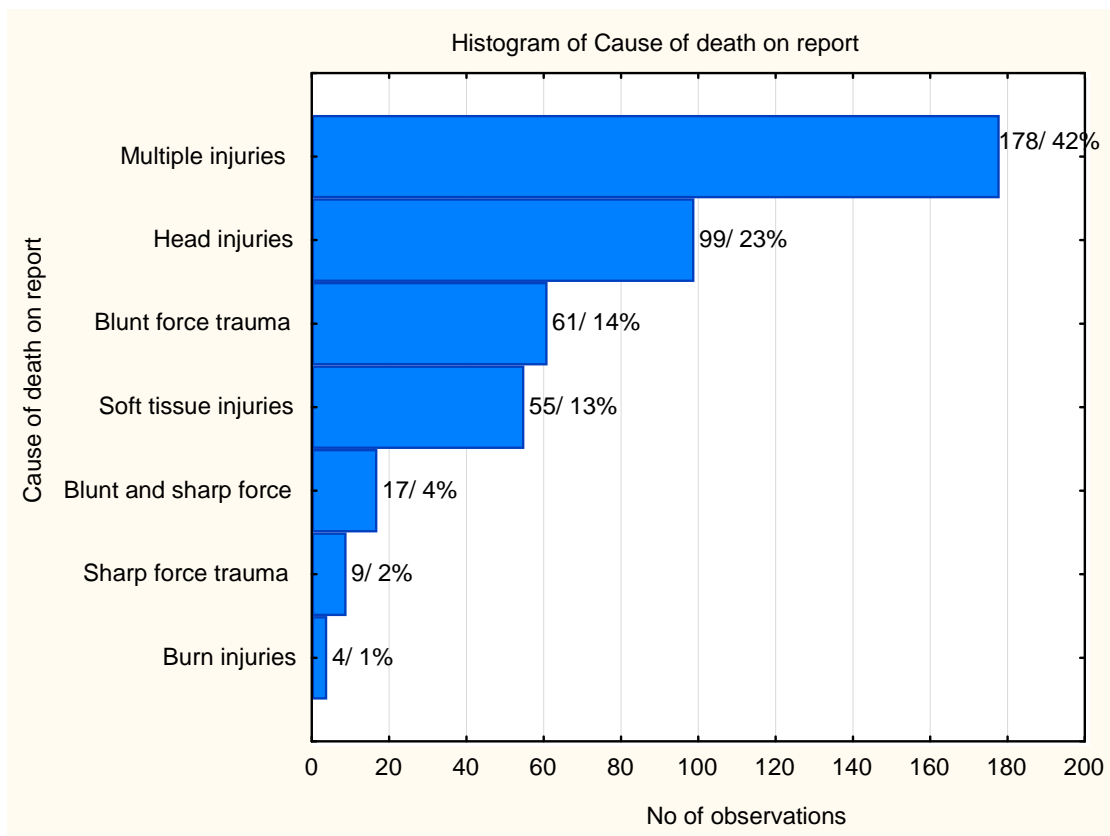
### 5.1 Introduction

The primary aim of this study was to determine the pattern of injuries sustained in these community assault fatalities.

### 5.2 Cause of death according to autopsy report

Figure 5.1 depicts the cause of death in these community assault cases as stipulated on the autopsy/post mortem examination report. Multiple injuries comprised 42% of the cause of death, followed by head injuries (23%), blunt force trauma (14%) and soft tissue injuries (13%). A combination of blunt and sharp force trauma was seen in 4% of cases.

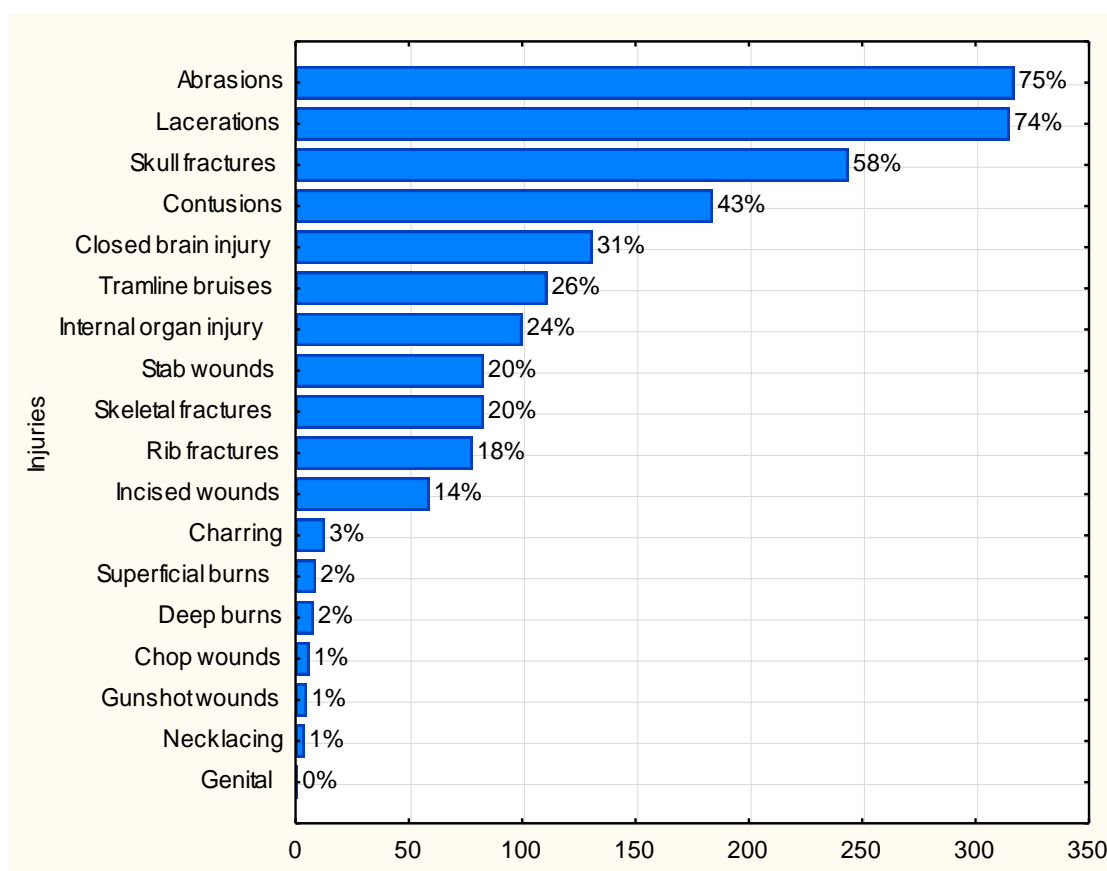
**Figure 5.1 – The cause of death as stipulated on the autopsy report**



### 5.3 Injuries sustained

Figure 5.2 demonstrates the individual injuries sustained during the community assault. Blunt force trauma in the form of abrasions and lacerations were present in 75% and 74% of cases respectively, followed by skull fractures (58%) and contusions (43%).

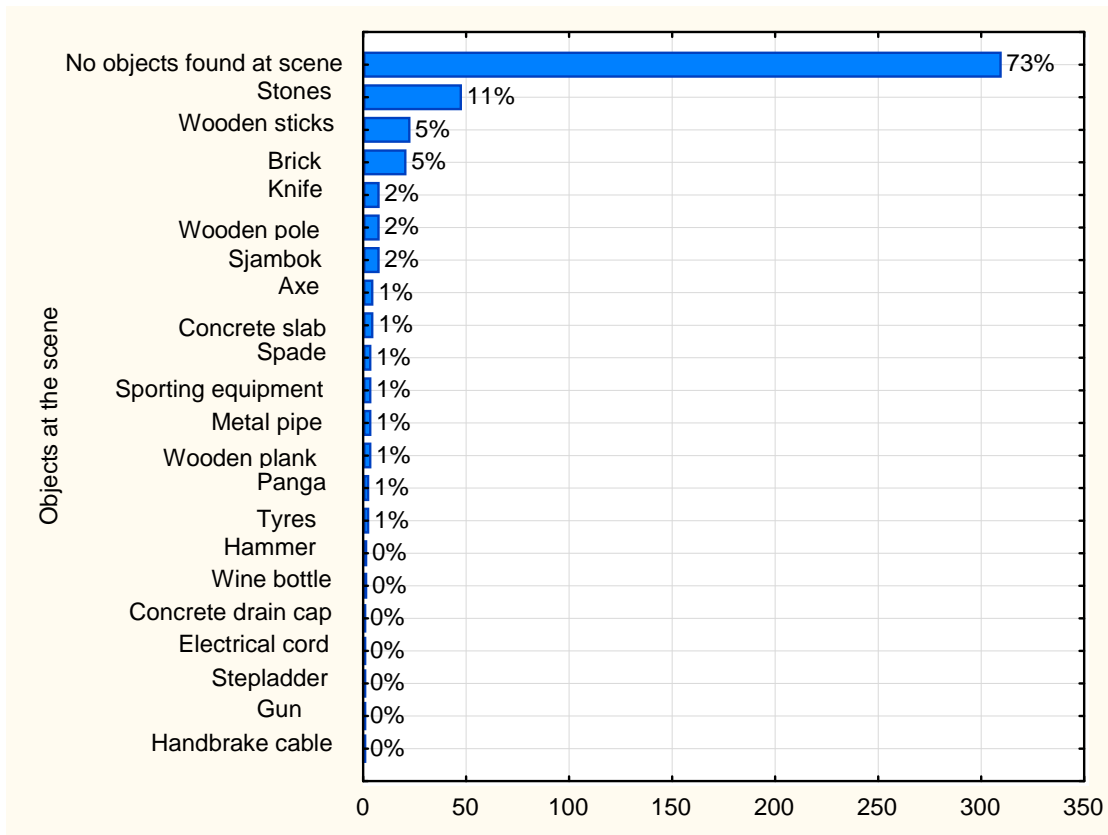
**Figure 5.2 – Injuries sustained in the community assault cases**



## 5.4 Probable objects found at scene of death

Figure 5.3 provides a brief overview of the objects found at the scene of death in these cases.

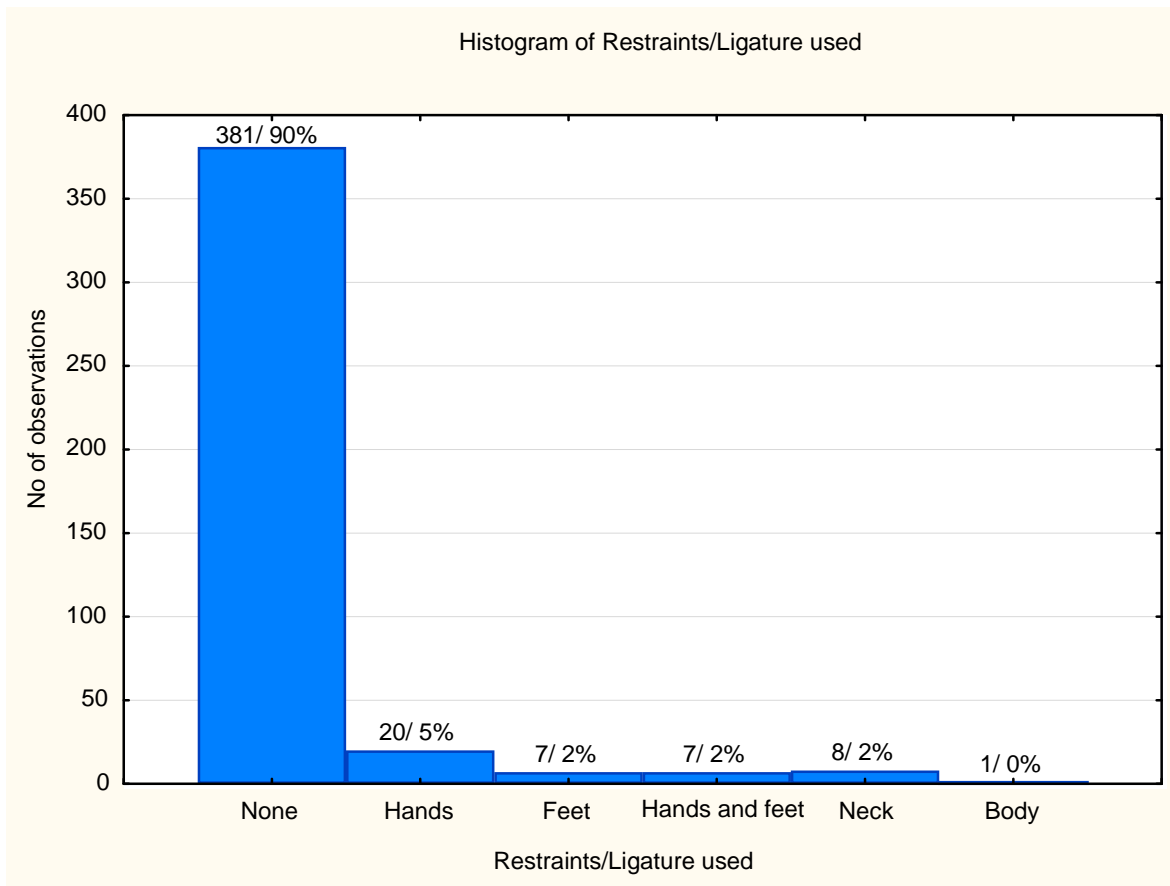
**Figure 5.3 – Probable objects found at scene**



## 5.5 Restraints/ligature used

Figure 5.4 demonstrates that only in a small percentage of cases, definite proof of restraints/ligatures were used, predominantly with the hands tied together (5%), followed by the feet (2%), hands and feet (2%), and neck ligature(2%).

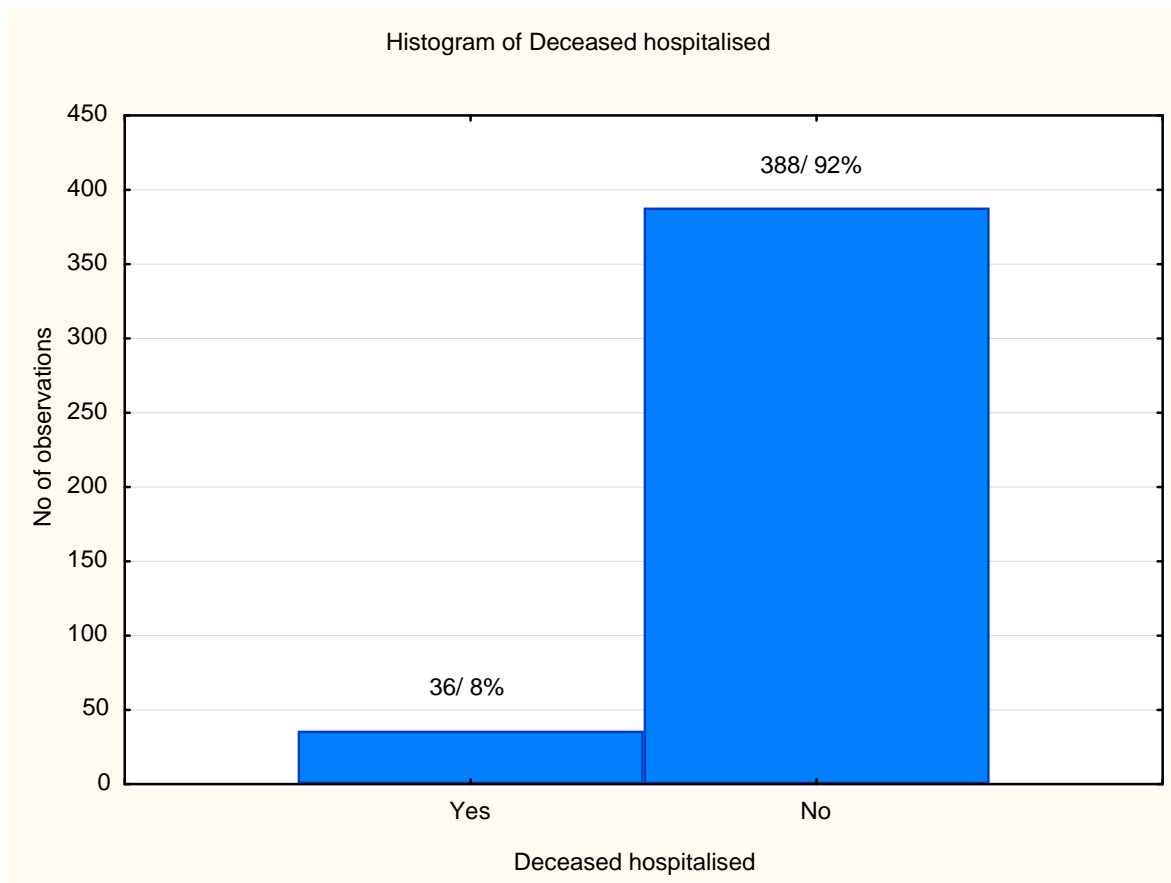
**Figure 5.4 – Restraints/ligature used during the community assault**



## 5.6 Hospitalised community assault cases

Figure 5.5 demonstrates that 8% of the fatal community assault cases were hospitalised. Majority of cases died on the scene or were declared dead upon arrival at hospital.

**Figure 5.5 – Hospitalised community assault cases**

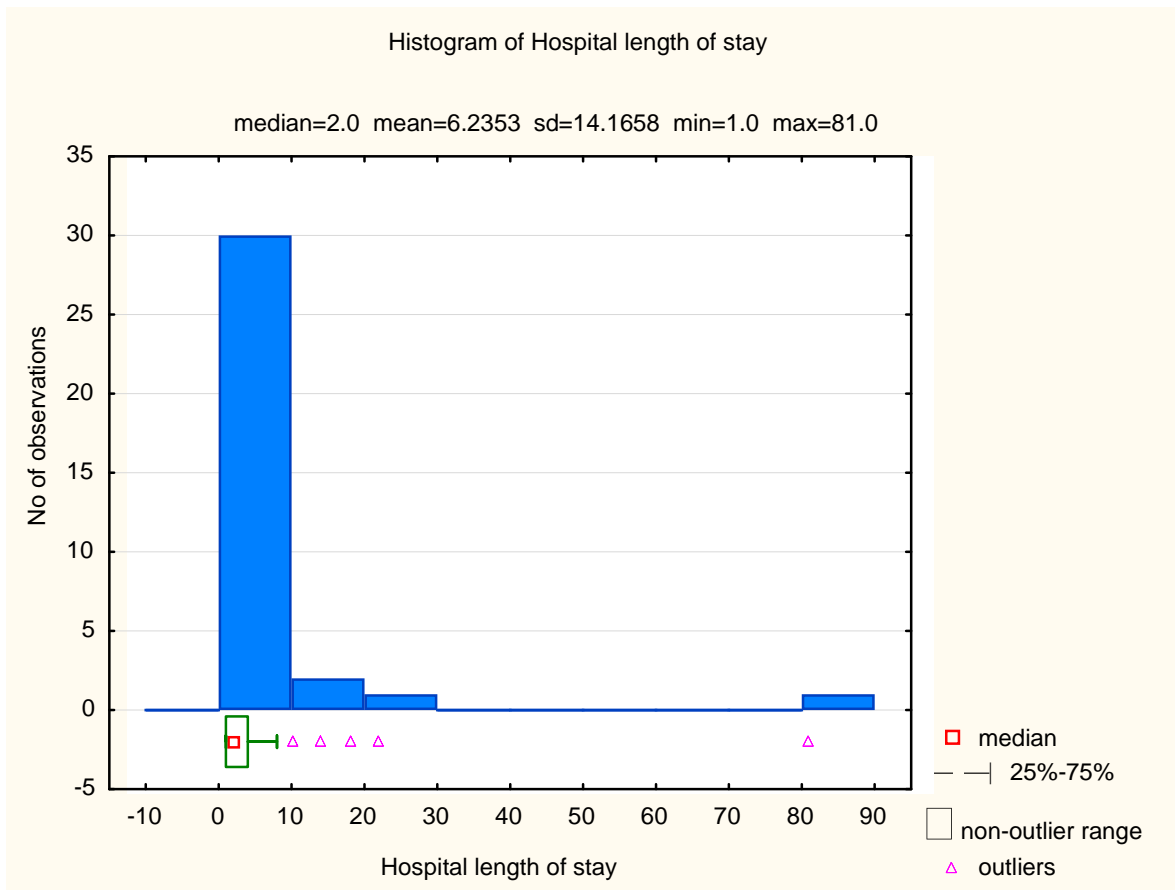




### 5.7 Hospital length of stay

The mean of the hospital stay, in the hospitalised cases, was 6.2 days (length of stay ranging from 1-81 days). The median length of stay was 2 days. (Refer figure 5.6).

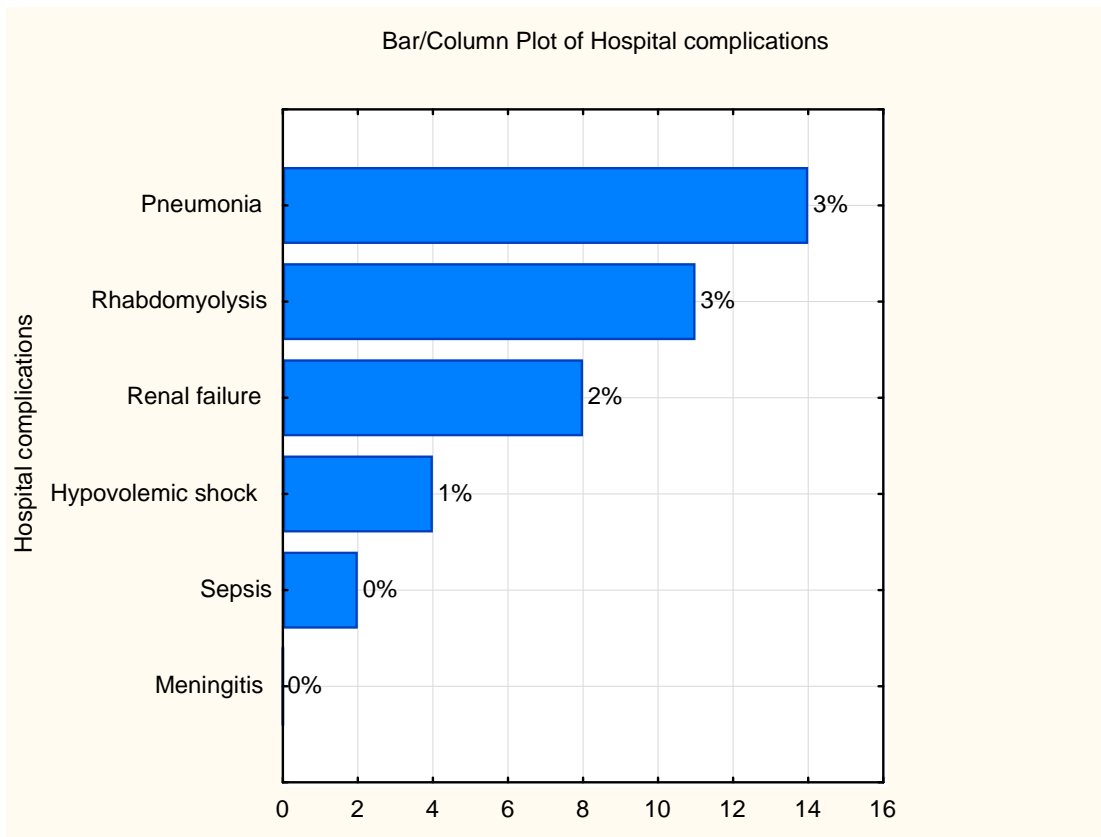
**Figure 5.6 – Average hospital length of stay**



## 5.8 Complications during hospital stay

Figure 5.7 demonstrates that the main complications leading to death in the hospitalised community assault victims were pneumonia (3%), rhabdomyolysis (3%), followed by renal failure (2%) and hypovolemic shock (1%).

**Figure 5.7 – Complications during hospital stay**



## Chapter 6: Additional investigations

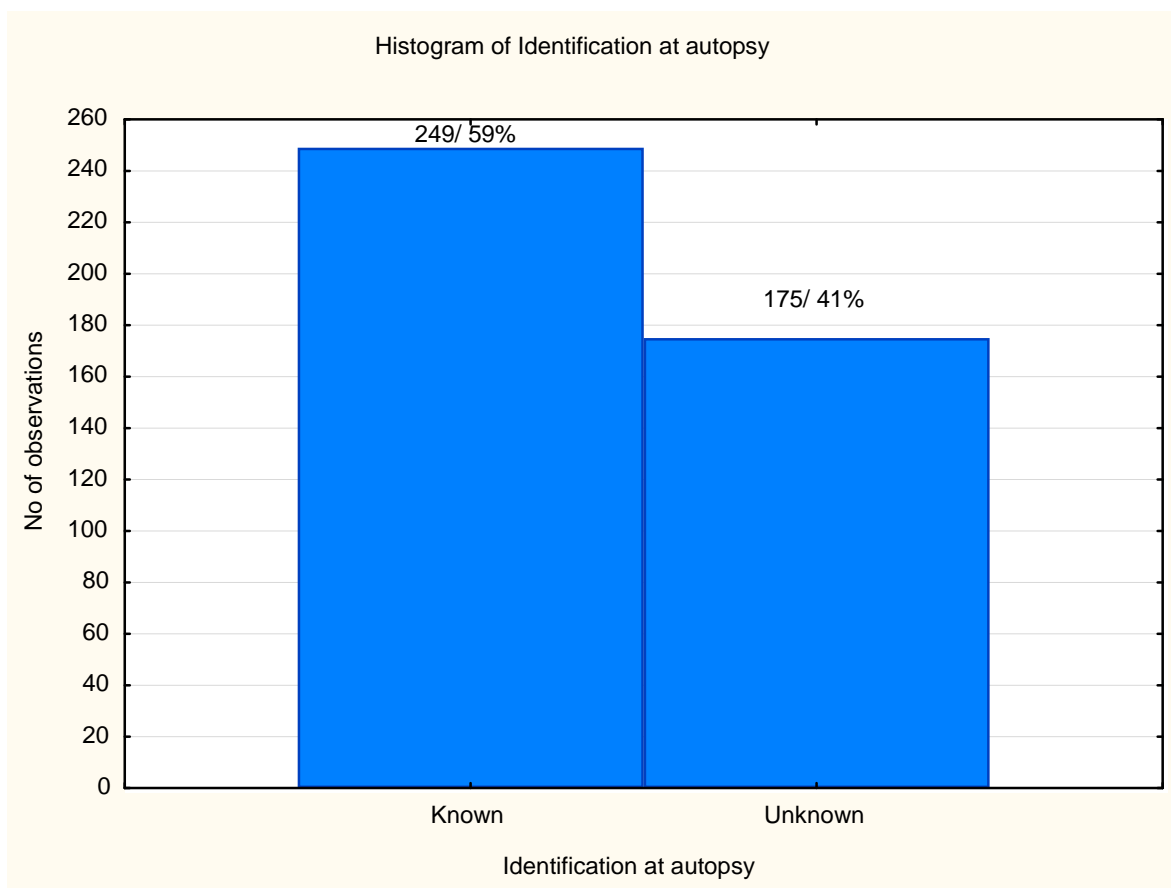
### 6.1 Introduction

The results of this chapter highlight the additional investigations performed by the pathologist at autopsy as well as other observations noted during the data collection.

### 6.2 Identification of the deceased at autopsy

Figure 6.1 demonstrates that 59% of community assault cases were identified at the time of autopsy, while 41% were unidentified.

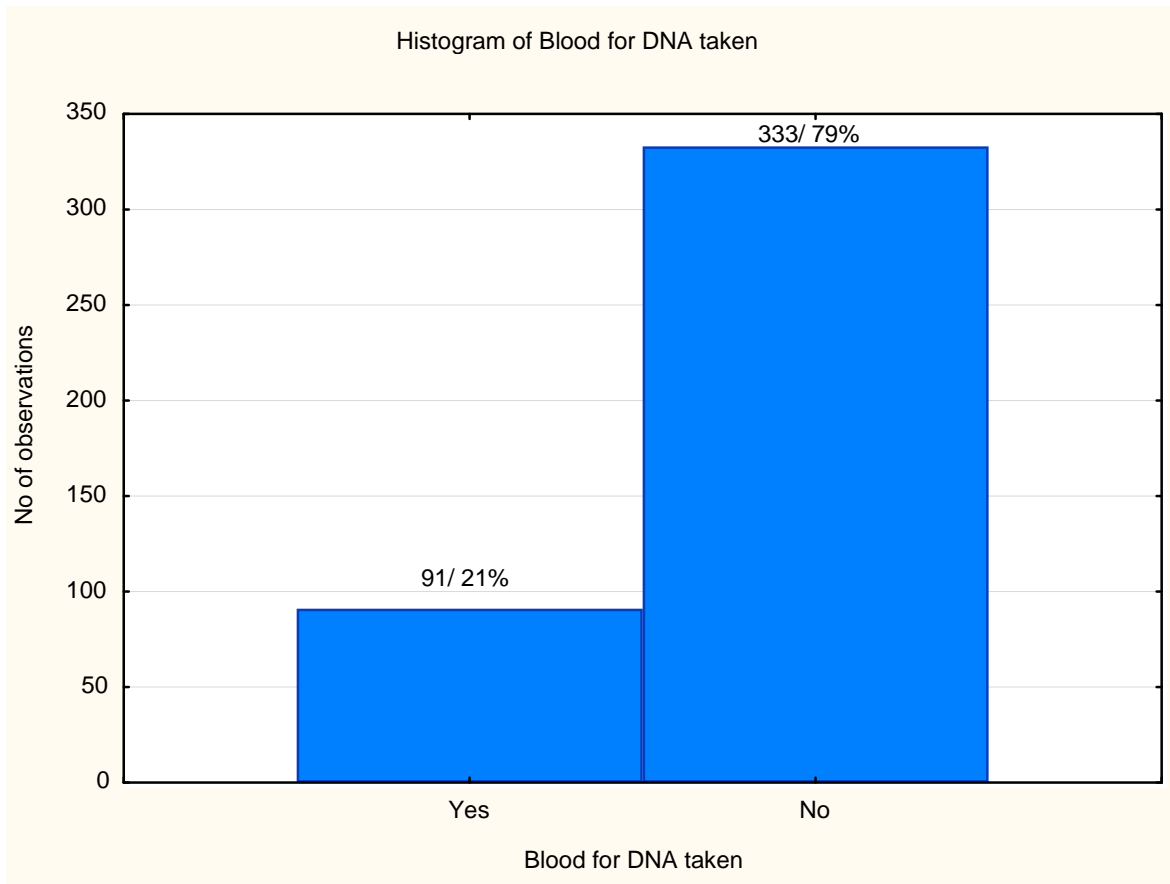
**Figure 6.1 – Identification at autopsy**



### 6.3 DNA specimens taken at autopsy

Figure 6.2 demonstrates that in 21% of cases, a blood specimen was taken at autopsy for DNA analysis.

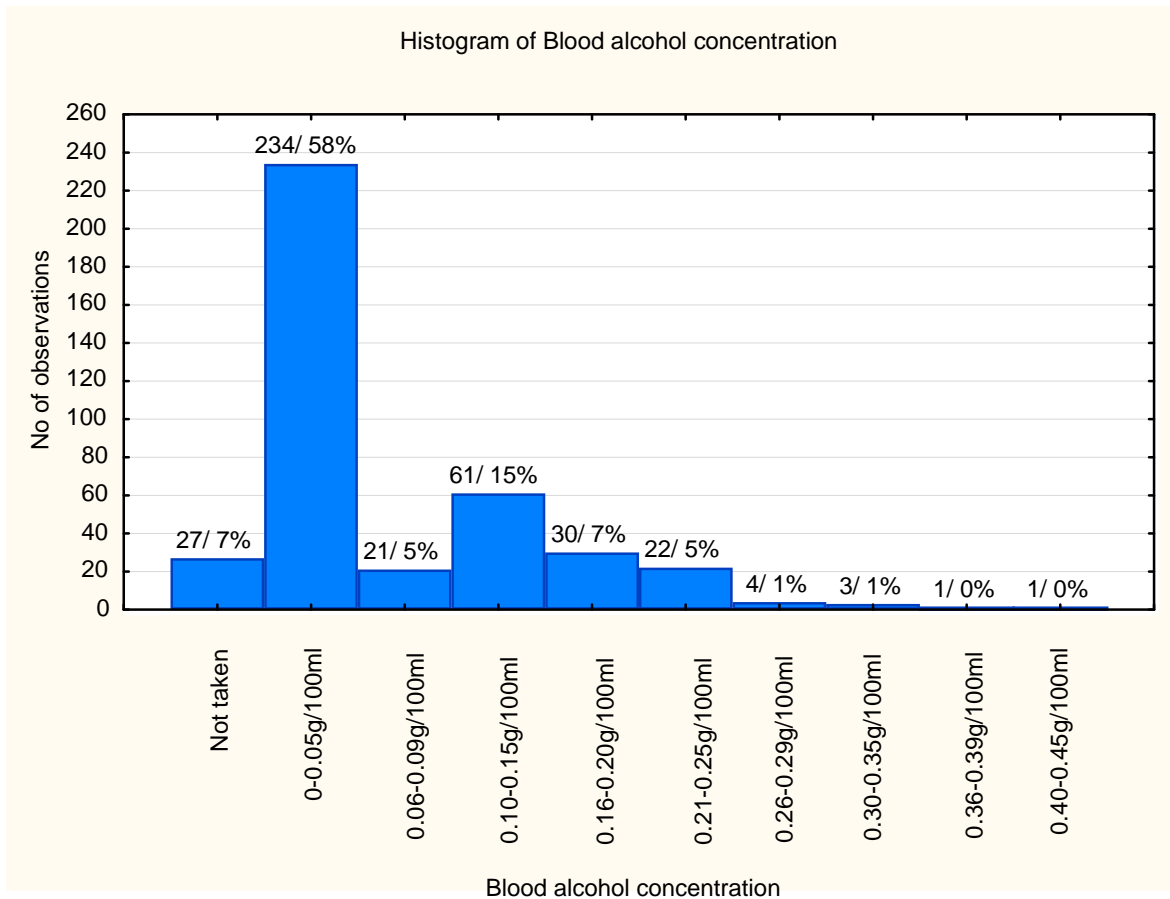
**Figure 6.2 – Blood for DNA taken at autopsy**



## 6.4 Blood alcohol concentration

Figure 6.3 shows that blood for alcohol determination was taken at autopsy in 93% of cases. In 58% of community assault cases, the blood alcohol concentration was between 0-0.05g/100ml followed by a blood alcohol concentration of between 0.10-0.15g/ml in 15% of cases.

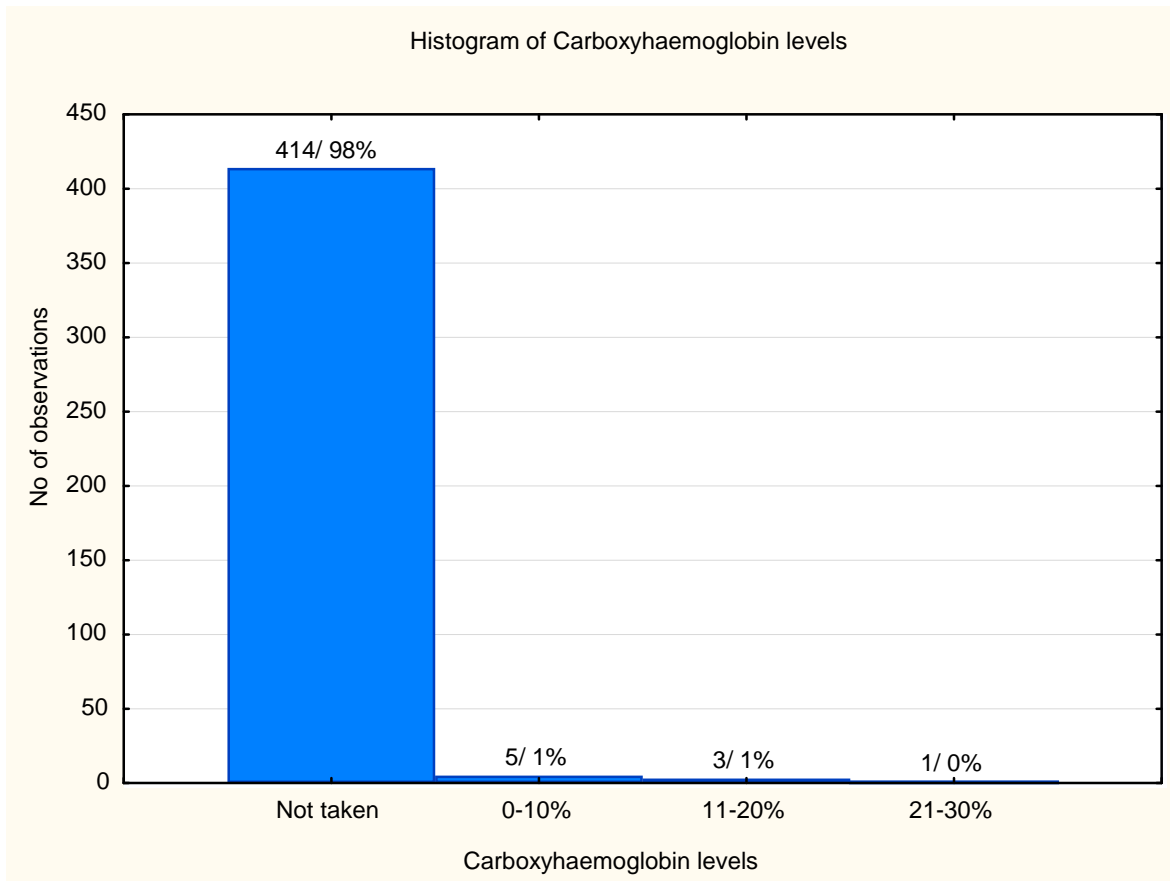
**Figure 6.3 – Blood alcohol concentration at autopsy**



## 6.5 Carboxyhaemoglobin levels in the community assault victims that sustained burns

Figure 6.4 shows that in only 8 cases, blood was sent away for carboxyhaemoglobin testing. 5 cases had a carboxyhaemoglobin level of between 0-10% and 3 cases 11-20%.

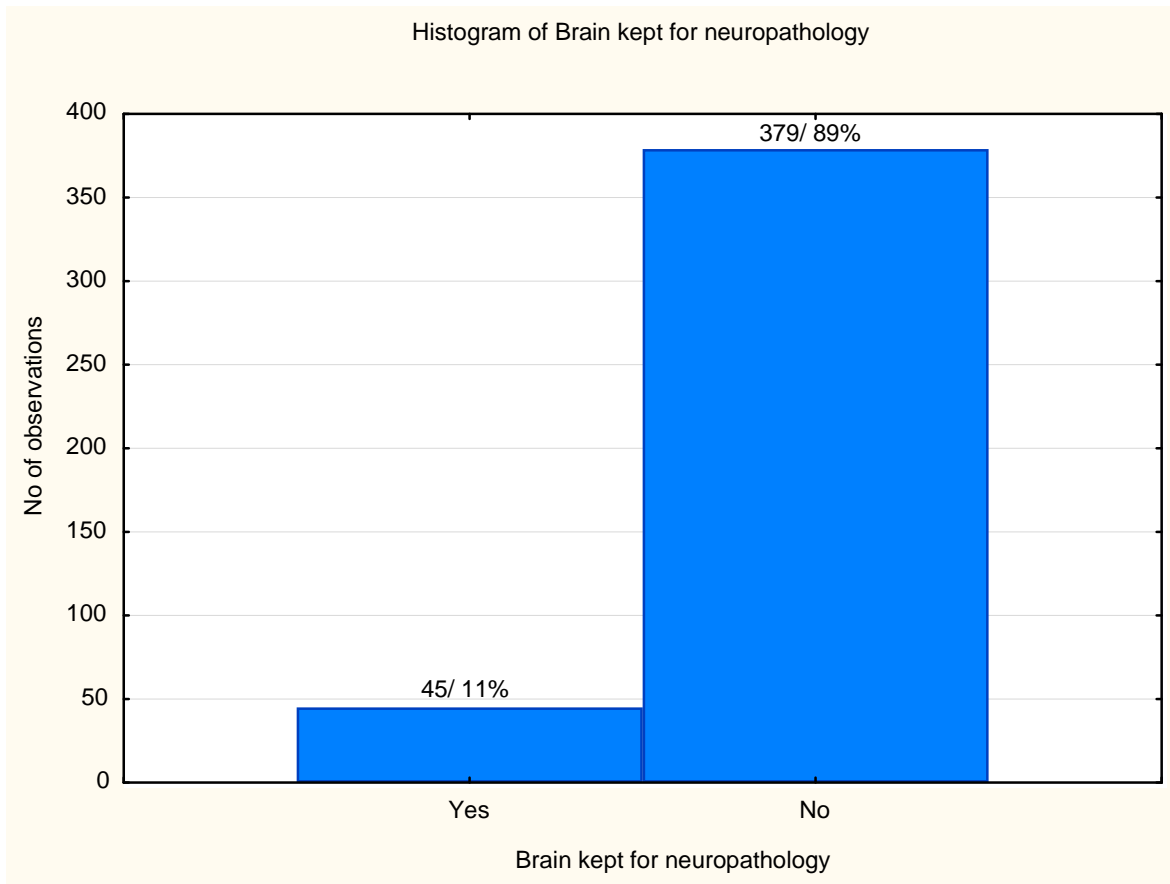
**Figure 6.4 – Carboxyhaemoglobin levels**



## 6.6 Brain retained in formalin for formal neuropathological evaluation

Figure 6.5 shows that in 11% of cases, the brain was fixed in formalin for formal neuropathological evaluation.

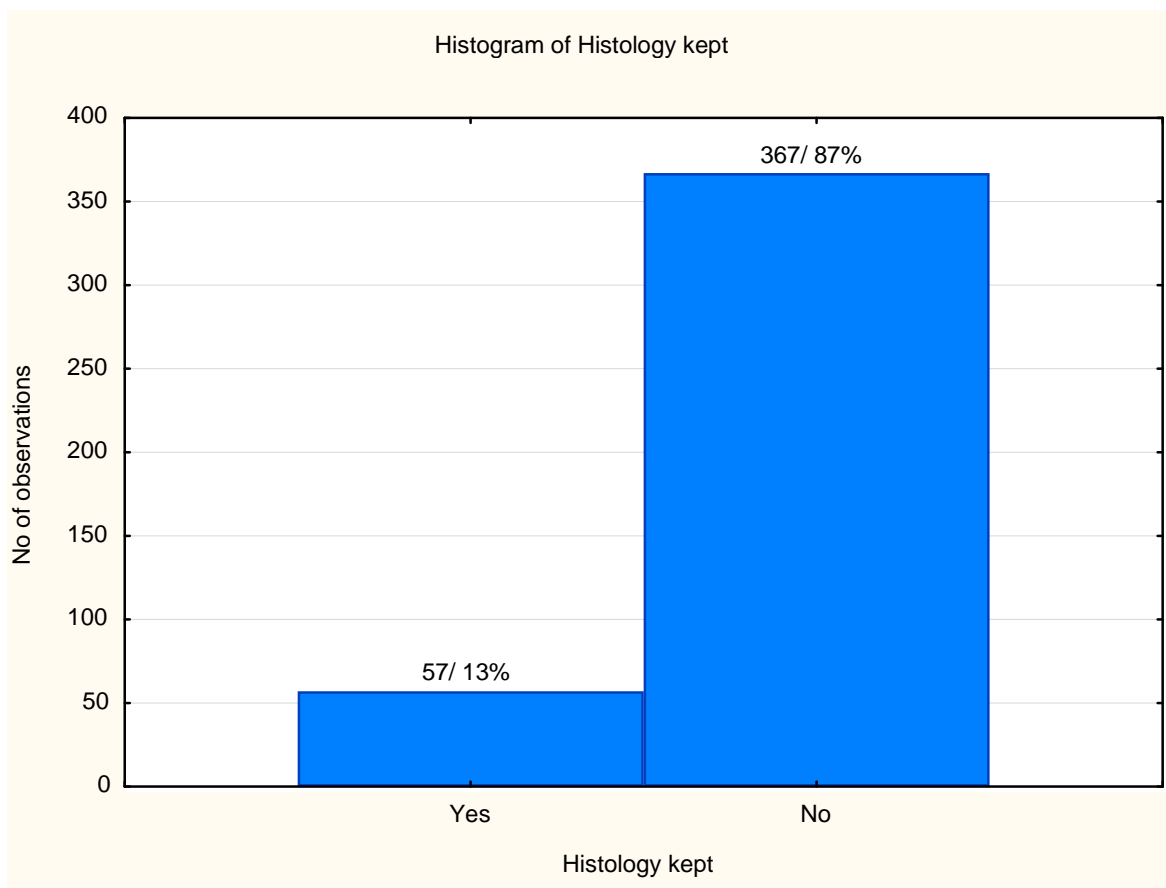
**Figure 6.5 – Brain retained in formalin**



## 6.7 Tissues for histology

Figure 6.6 shows that tissues were retained for histology in 13% of cases, in order to ascertain the cause of death more precisely.

**Figure 6.6 – Tissues kept for histology**

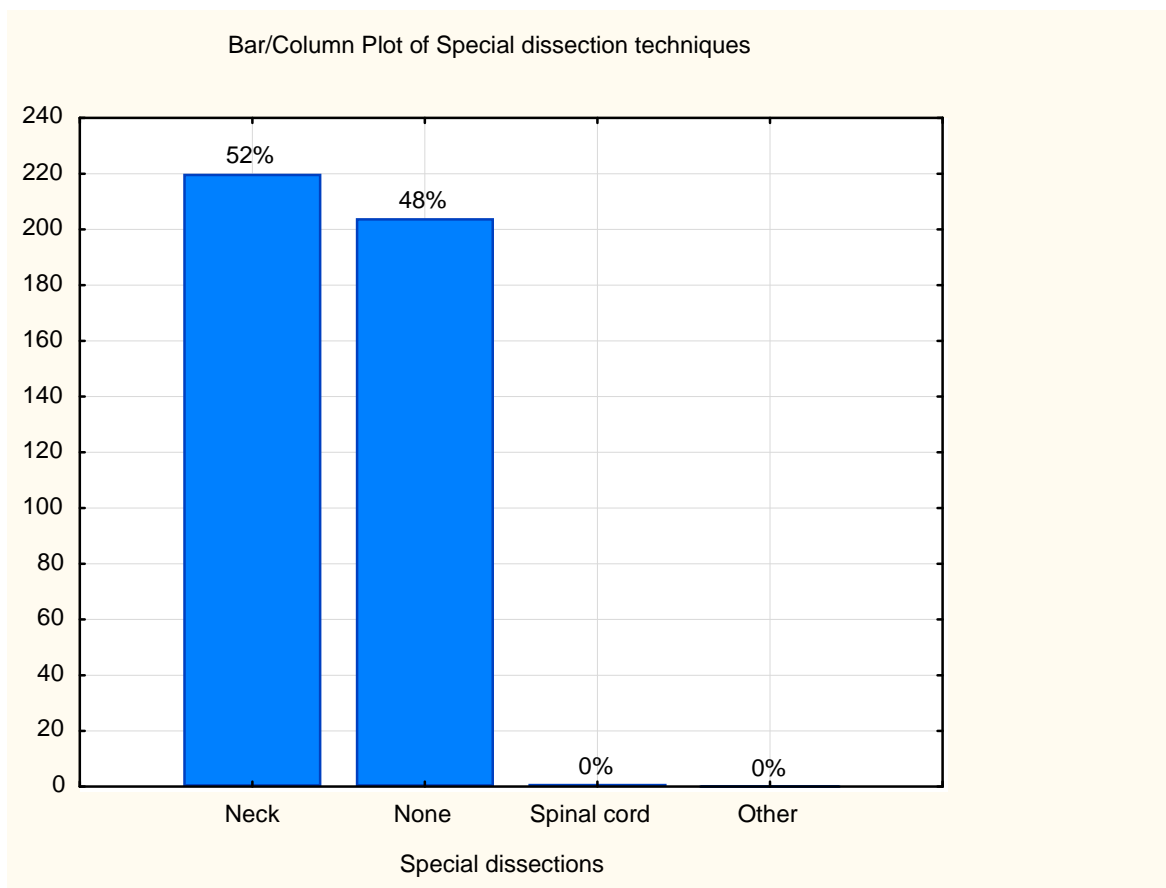




## 6.8 Special dissection techniques

Figure 6.7 depicts that the most common specialised dissection technique performed at autopsy was a layer-wise or bloodless field neck dissection in 52% of cases.

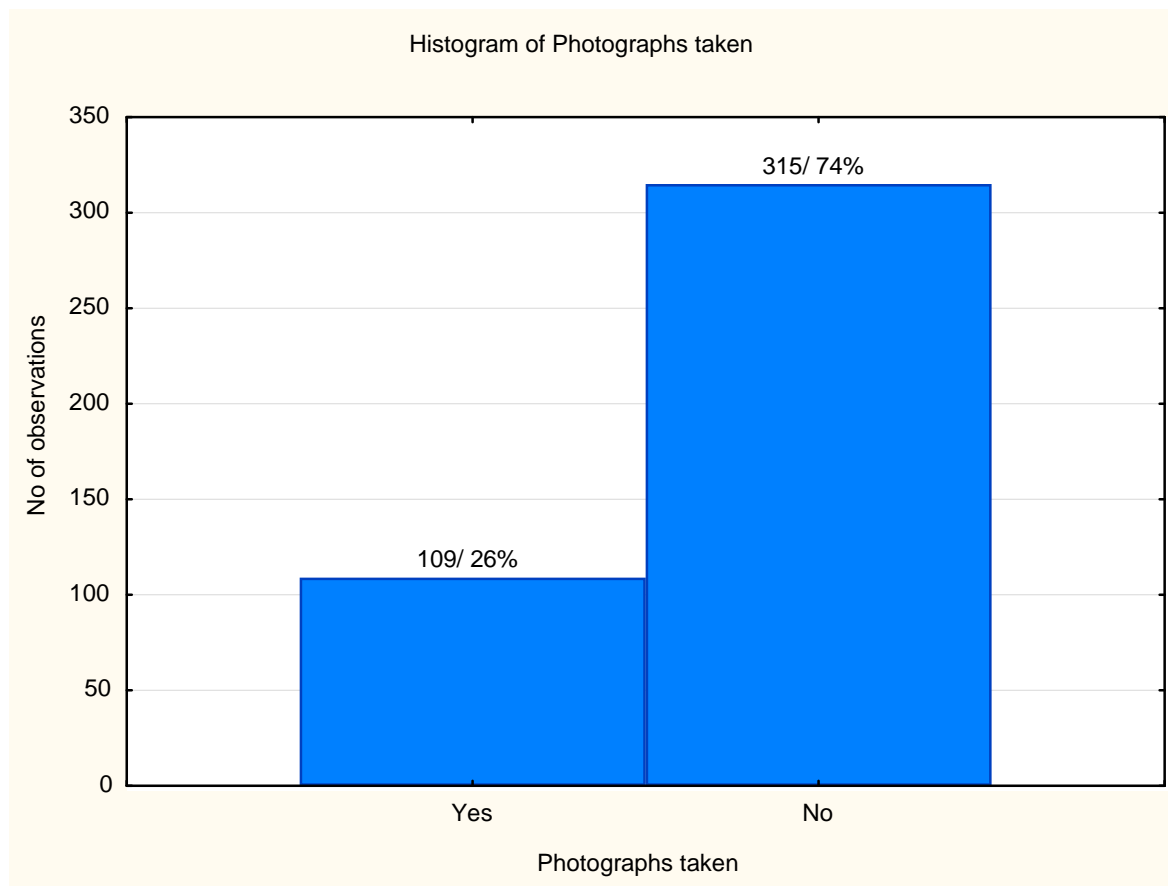
**Figure 6.7 – Special dissection techniques**



## 6.9 Photographs taken at autopsy

Figure 6.8 illustrates that in 26% of cases, photographs were taken at autopsy by the official police photographer and attached to the autopsy/post mortem examination report.

**Figure 6.8 – Photographs taken at autopsy**



## Chapter 7: Discussion

### 7.1 Summary of Findings

A total of 424 fatal community assault cases were identified during the study period. This represents only a portion of the fatal community assault cases in the Western Cape as a whole, as only cases admitted to the Tygerberg Forensic Pathology Facility were reviewed.

A paucity of information exists as to the exact prevalence and incidence of these fatalities in South Africa. This type of homicidal death is not sub-classified as a particular form of violent behavior by the National Injury Mortality Surveillance System, as stated by Forgas et al in a study on community versus non-community assault cases in Khayelitsha.<sup>11</sup>

The possibility that some fatal community assault cases were missed or not included in this study, could be related to the fact that the history of community assault was not known at the time of autopsy. It was presumably classified as a conventional assault case. In (74%) of cases in this study, a true history of community assault was available. The remainder was assumed to be community assault by the SAPS official involved with the case, based on the injuries sustained or hearsay history. These bodies were often found on the side of the road or in an open field, with no witnesses to the crime, and the deceased was often unidentified at the time of autopsy.

An interesting observation was that in 17 of the cases, two decedents were allegedly assaulted and died on the scene, and in another instance, three decedents were assaulted at the same time and died simultaneously. This was usually due to the decedents having allegedly committed crimes together and being caught in the act, or caught when together by community members.

The results of this study reflect a steady increase in community assault fatalities from 2004 to 2008 with a decrease thereafter, and a second peak from 2010 to 2012. No definitive reason could explain this drastic peak in 2008, although the study about homicidal deaths by Cocks and Saayman, showed a total of 67 cases of community assault/mob justice fatalities between 2007 and 2008 that presented to the Pretoria Medico-Legal Laboratory, with the majority of those cases (51) occurring in 2008. The authors proposed that this peak in 2008 was due to the “xenophobic attacks” that occurred at that time.<sup>21</sup> Review of the autopsy/post mortem examination reports and additional notes in this study, showed no written record that any of these fatalities were related to xenophobia. Information as to which types of crimes precipitated these attacks, were not available. Whether these were petty crimes or more serious was unknown. Therefore, we could not compare the alleged precipitating events in this study group with the findings of Ng’walali et al in Tanzania, whereby the majority of alleged “mob justice” killings were due to alleged theft.<sup>16</sup>

## **DEMOGRAPHICS**

### **Area where assault occurred:**

This study only involved certain specified areas serviced by the Facility in some suburbs of Cape Town. Fifteen community assault fatalities included in the study fall outside the range of areas that present to the Facility. This was due to the fact that the assault occurred in another suburb/township but the decedents were transferred to hospitals for further treatment and demised subsequently. These hospitals are located within the specified drainage areas for the Facility. The majority of fatalities were reported in Khayelitsha (166 cases) and Harare (84 cases). Harare is a sub-section within Khayelitsha. Khayelitsha is Xhosa for “new home” and is the “second biggest township in the country.”<sup>23</sup>

These results also follow Singh’s findings that these “community justice” killings are more prominent in the “rural or semi-rural historically black townships,” in poverty-stricken areas of the country.<sup>10</sup> The other areas where these fatalities frequently occurred in this study were Mfuleni (47 cases), Delft (37 cases), Kraaifontein (24 cases) and Lingeletu-West (another sub-section within Khayelitsha - 16 cases) - all sub-economic areas in the region studied.<sup>22</sup>

**Age, sex and race:**

The age range in this study was between 14-62 years. This shows similarities to the local study done by Forgas et al in Khayelitsha, whereby the age range of community assault cases presenting to hospital in Khayelitsha was 18-61 years of age. <sup>11</sup> In the study by Rosedale, the age range was 14-53. <sup>17</sup> The majority of the victims were male with only 1 female represented in our study, which coincides with the study by Forgas et al where 2 out of 148 cases were female. <sup>11</sup>

(57%) of the victims were from the Black African population, which fits in with the demographics of Khayelitsha and Harare - the prominent areas where the fatalities occurred in this study.

**INJURIES****Injuries sustained:**

In (42%) of the fatal community assault cases, the cause of death stated on the autopsy/post mortem examination report was that of multiple injuries, indicative of the extent and multiplicity of the injuries sustained in these community assault fatalities. This was followed by head injuries (23%), blunt force trauma (14%) and soft tissue injuries (13%).

The sub-classification of the individual injuries sustained was as follows: Abrasions (75%), lacerations (74%), skull fractures (58%), contusions (43%), closed brain injury (31%), tramline bruises (26%), stab wounds (20%). This shows that the majority of cases sustained evidence of blunt force trauma. A combination of blunt and sharp force trauma was only seen in (4%) of cases. Charring as well as superficial and deep burns were only seen in (3%) and (2%) of cases respectively. Another important finding was the fact that "necklacing" fatalities were seen in only (1%) of cases, showing that this practice is not so commonly seen as opposed to the amount seen during the political unrest of the Apartheid regime.<sup>13</sup>

**Probable objects found at the scene of death:**

In some of the fatalities, bloodied objects were found at the scene of death and listed on the SAPS 180 form attached to the autopsy/post mortem examination report. These were assumed by the SAPS officials as being the objects used during the assault. In (73%) of cases, no mention was made of any objects at the scene but in (21%) of cases, these were all blunt objects consisting of stones (11%), wooden sticks (5%) and bricks (5%). A sjambok found at the scene was only seen in (2%) of cases. In Rosedale's study about "Traumatic rhabdomyolysis in the rural setting", the community assault victims that presented to hospital were "beaten with sticks, metal bars and sjamboks" - all blunt objects.<sup>17</sup> These blunt objects correspond to the fact that in the majority of cases in this study, evidence of blunt force trauma was noted to the body. These objects were ordinary items that were incidentally found at the scene and easily accessible to the perpetrators of these presumed spontaneous assaults.

**Restraints/ligature used:**

In (10%) of the cases in this study, evidence of restraint was seen, in that the hands and/or feet and/or neck were bound. As previously mentioned, these were the cases where definite proof of restraints was present. This is in close relation to the study by Lang et al whereby the upper and lower limbs were bound by restraints in 15.6% of cases. However in Lerer's study on "Homicide-associated burning in Cape Town", restraints were seen in 21% of homicidal burning cases.<sup>20</sup>

**Hospitalised cases:**

(8%) of the study cases were hospitalised with the main complications in hospital being pneumonia (3%), followed by rhabdomyolysis (3%) and renal failure (2%). This shows strong resemblance to the studies done by Proctor and Rosedale et al in community assault victims that presented to hospital, whereby the majority of these patients developed renal impairment secondary to rhabdomyolysis, which is a known complication that clinicians need to be aware of in these cases sustaining extensive blunt force injuries to soft tissue.<sup>14, 17</sup>

## **ADDITIONAL INVESTIGATIONS AT AUTOPSY**

### **Identification at autopsy:**

In (59%) of cases, the identity of the deceased was known at the time of autopsy, with blood specimens for DNA taken in (21%) of cases. The fact that very few cases had specimens taken for DNA testing, is most likely due to the fact that these requests need to be administered by the investigating officer involved. DNA kits are also not routinely kept at the facility but provided by SAPS. Identification is also done visually by the relatives of the deceased, after the performance of a medico-legal autopsy. Blood for DNA was also taken where objects found at the scene were kept as evidence and were needed to be linked to the decedent.

### **Blood alcohol concentration:**

Blood specimens for blood alcohol concentration are taken in all adult cases where post mortem examinations have been performed on presumed natural and unnatural deaths, unless they were hospitalised for more than 24 hours prior to death.

(58%) of cases in this study had a blood alcohol concentration of 0-0.05g/100ml followed by (15%) of cases with a level of between 0.10-0.15g/100ml, (7%) with a level of between 0.16-0.20g/100ml and (5%) with a level of 0.21-0.25g/100ml. The last three levels correspond to being moderately to severely under the influence of alcohol and once again reflect alcohol as being a risk factor in violent or homicidal deaths.<sup>24</sup>

### **Carboxyhaemoglobin testing:**

Very few of the community assault cases were extensively charred (3%), hence the few specimens of blood that were sent for carboxyhaemoglobin testing. This study only reflected carboxyhaemoglobin levels of between 0-20%, indicative of the fact that these victims were most likely dead before being set alight. These cases were also accompanied by the presence of other blunt or sharp force injuries to the body, and this corresponds to Lerer's homicidal burning cases where victims were first hit by blunt objects and/or stabbed before being set alight. It is presumed that this practice is followed to hide the identity of the deceased and cover up the fatal injuries.<sup>20</sup>

**Additional investigations at autopsy:**

Retention of the brain and other tissues for histology at autopsy was done in a small percentage of cases (11% and 13% respectively). The brain is suspended in a container and allowed to fix in formalin for 21 days, prior to cutting and formal neuropathological evaluation. This placed an additional burden on the pathologist as the time required for finalisation of the autopsy/post mortem examination report was then delayed due to these investigations.

Bloodless field or layer-wise neck dissections were done in (52%) of cases, due to the extensive blunt force injuries sustained to the body or suspected neck trauma. This procedure also prolonged the autopsy time in these cases. This dissection technique involves inspecting the anterior neck structures for any injuries and includes, layer-wise dissection of the muscles together with evaluation of the bony and cartilaginous structures, and the blood vessels.

Blood and urine specimens for toxicology were taken at autopsy in only three cases. This is not a routine protocol at the facility, unless requested by the investigating officer involved or dependent on the relevant background history of the case. The autopsy/post mortem examination report did not specify the reason for these tests in these three cases. Two of the cases detected cannabinoids in the urine and those same two cases also detected Methaqualone in the blood specimen, with the level being in the non-toxic range.

**Photography of the injuries sustained:**

Photographs of the injuries were taken by an official police photographer and attached to the autopsy/post mortem examination report in (26%) of cases. This is not standard protocol at the facility, but was taken at the discretion of the pathologist involved, to serve as photographic evidence to demonstrate the extent and severity of the injuries sustained in these community assault cases.



**Additional findings:**

Lodox Statscan imaging was only done in eight cases. The Lodox© Statscan machine was only instituted in the facility in 2007. The Lodox© scanner provides a “digital x-ray image of the entire body within thirteen seconds”.<sup>5</sup> Imaging was indicated in cases where the community assault decedent was alleged to have sustained gunshot wounds amongst the other injuries sustained or a wound resembled a gunshot wound. Bodies that were charred were also scanned.

**7.2 Study strengths and limitations**

This is the first study to investigate the incidence and prevalence of fatal community assault cases in a South African setting using mortuary data. It has also highlighted the communities involved and the public health burden affecting them.

The injuries sustained and its complications provide some insight to clinicians who treat these cases.

This study serves as a platform for further research into this topic in a South African medico-legal and clinical setting.

**Limitations include the following:**

- Cases could have been missed due to no history of community assault being known or specified on the SAPS 180 or the TH13/FPS 100 forms. More detailed information, documented or verbal, from the SAPS official involved would have prevented some cases being excluded.
- Cases were drawn from only one major medico-legal facility in Cape Town. A duplication of this study using data from all medico-legal facilities in the Western Cape may show a more accurate representation of the incidence and prevalence of these cases at a provincial level.
- Comparing the results elucidated from this study to others, proved difficult due to the fact that no formal or publicised medico-legal post mortem data exist in the country relating to community assault fatalities.

- The time of death was not included in the study, as the time stated on the autopsy/post mortem examination report was often inaccurate due to the decedents being certified/pronounced dead or discovered many hours after death. This information is valuable as it could assist the police in the involved areas by increasing visible policing and patrolling during the danger hours.

### 7.3 Future Research/Recommendations

- These fatalities should officially be classified as “Community assault fatalities” and the term “Vigilante justice” be obliterated.
- Community assault fatalities should be sub-classified as a form of violence and be reported as such by SAPS and be included in the national formal crime statistics.
- More research is required :
  - Using autopsy data from other medico-legal laboratories in the other provinces to assess the burden of these fatalities.
  - In clinical settings, especially trauma units, to assist clinicians in the management of these cases and treatment of possible complications. Monitoring the amount of community assault cases presenting to these care facilities will also help establish the burden that this places on clinicians and healthcare facilities as a whole.
  - To establish the prosecution or conviction rate in these cases, whether fatal or non-fatal.
  - To determine the role that illicit drugs may play in these fatalities.
- Stricter policing protocols are needed where this form of violence is prevalent, as well as better strategies to help combat the problem of these community assaults.
- Relationships between the community and the police need to be strengthened.
- More community-based educational forums outlining the role of the criminal justice system.

## **7.4 Conclusion**

In this retrospective review of community assault fatalities, it was found that the cause of death in the majority of cases was due to multiple injuries due to blunt force trauma. The most prevalent area where these assaults occurred was Khayelitsha. Males were almost exclusively assaulted. These fatalities have increased annually and also create an additional burden on the forensic pathologist/forensic medical officer in terms of autopsy time, additional investigations and completion of the autopsy/post mortem examination report. Adequate policing in prevalent areas is essential, to address the unnecessary loss of life and additional burden on the criminal justice system and health care services.

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