

**Violence against women**

A prospective study of women presenting to a South African Trauma Centre

**by**

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## **Declaration**

I, Britta Dedekind, hereby declare that the work on which this dissertation/thesis is based is my original work (except where acknowledgements indicate otherwise) and that neither the whole work nor any part of it has been, is being, or is to be submitted for another degree in this or any other university.

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## **Abstract**

### **Violence against women**

A prospective study of women presenting to a South African Trauma Centre

B Dedekind, D Kahn, TC Morgardo, F Gool, JF Thirsk, AJ Nicol

**Background** – Violence against Women is a major public health issue, and it is universally under reported.

**Objective** – To conduct an injury surveillance of severe or life threatening violent acts against women, to determine the demographics of the injured women and to identify the nature of the perpetrators.

**Methods** – A standardized structured questionnaire administered in an interview conducted on female patients admitted to the Trauma Centre at Groote Schuur Hospital as a result of interpersonal violence. Age, level of education, employment status, housing and substance abuse was recorded.

**Results** – 118 questionnaires administered, 17 were excluded. Perpetrators were male, female, both or unknown in 84, 11, 3 and 3 (83%, 11%, 3% and 3%) respectively. The relationship of the perpetrator was: 49 husband/partner (48%), 22 acquaintance (22%), 22 unknown person (22%), 6 family member (6%) or 2 ex-husband/previous partner (2%).

**Conclusion** - The most common form of abuse that women experienced was intimate partner violence.

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## **Literature Review**

### **Overview**

Violence against women has become widely recognized as a major social problem and is regarded as a crisis in almost all societies. It undoubtedly represents a violation of women's rights. It is an important cause of injury amongst women and is a risk factor for many physical and psychological health problems. One of the major challenges is the fact that, because of the sensitivity of the subject, violence against women is almost universally under-reported.<sup>1</sup>

Violence against women is a major public health issue. Documenting the magnitude of the problem of violence against women and producing reliable comparative data to guide policy and monitor progress is difficult. The most common form of abuse that women experience is intimate partner violence. This may be in the form of physical, sexual or emotional violence. It is the leading cause of homicide death in women globally.

There are multiple global initiatives which address violence against women as well as gender inequality. The 2013 United Nations Commission on the Status of Women focused on prevention and elimination of all forms of violence against women and girls. The United Nations (UN) Secretary General's "UNiTE" campaign focused on ending violence against women.<sup>2</sup> The Millennium Development Goal 3 aimed specifically at promoting gender equality and empowering women. Many national governments have introduced laws which criminalize intimate partner violence. However the UN estimates that more than 600 million women live in countries where domestic violence is not considered a crime.

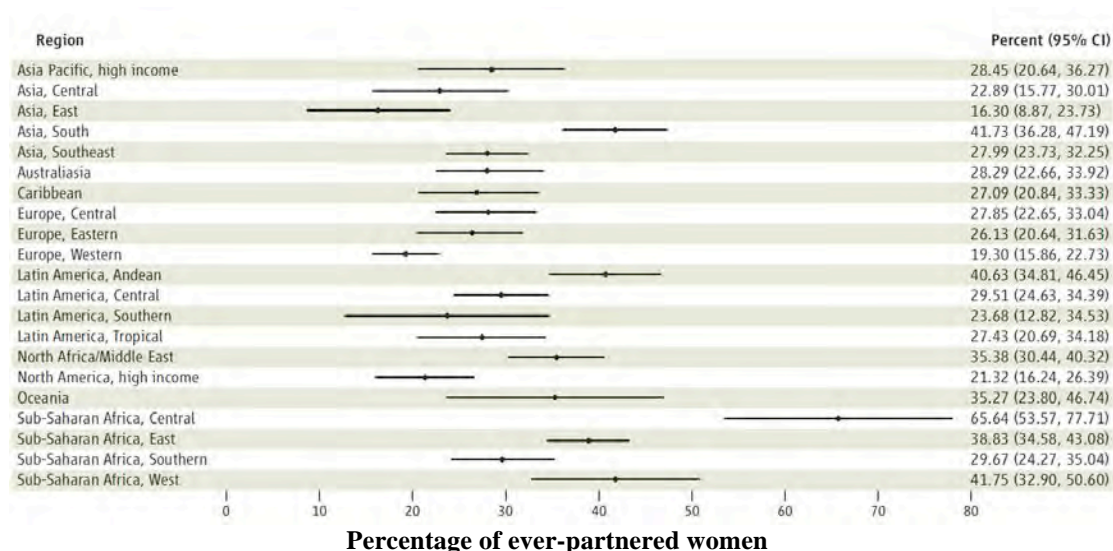
## Definition

In order to address the problem of violence against women it is important to have clarity on what the definition of violence is. It can be defined as any act, which is harmful to the victim, and can include physical attacks, threatened physical attacks, psychological or emotional aggression and abuse, sexual assault or threatened sexual assaults, and neglect.<sup>3</sup>

There is not a universally agreed-upon terminology for referring to violence against women. Commonly used terms have different meanings in different regions, having been derived from diverse theoretical perspectives and disciplines. The term “domestic violence” in many parts of the world refers to abuse of women by the current or previous male intimate partner. However in Latin America “domestic violence” refers to any violence that takes place in the home, including violence against children and the elderly. The terms “violence against women” and “gender based violence” may be used interchangeably to refer to the full range of abuse recognized by the UN declaration and other international agreements.<sup>4</sup>

## Geographical differences

Devries *et al* using data from 141 studies in 81 countries showed that globally in 2010, 30% of women aged 15 and over had experienced physical and /or sexual intimate partner violence.<sup>2</sup> There is however considerable regional variation in prevalence of physical and / or sexual violence, as shown in the graph below.



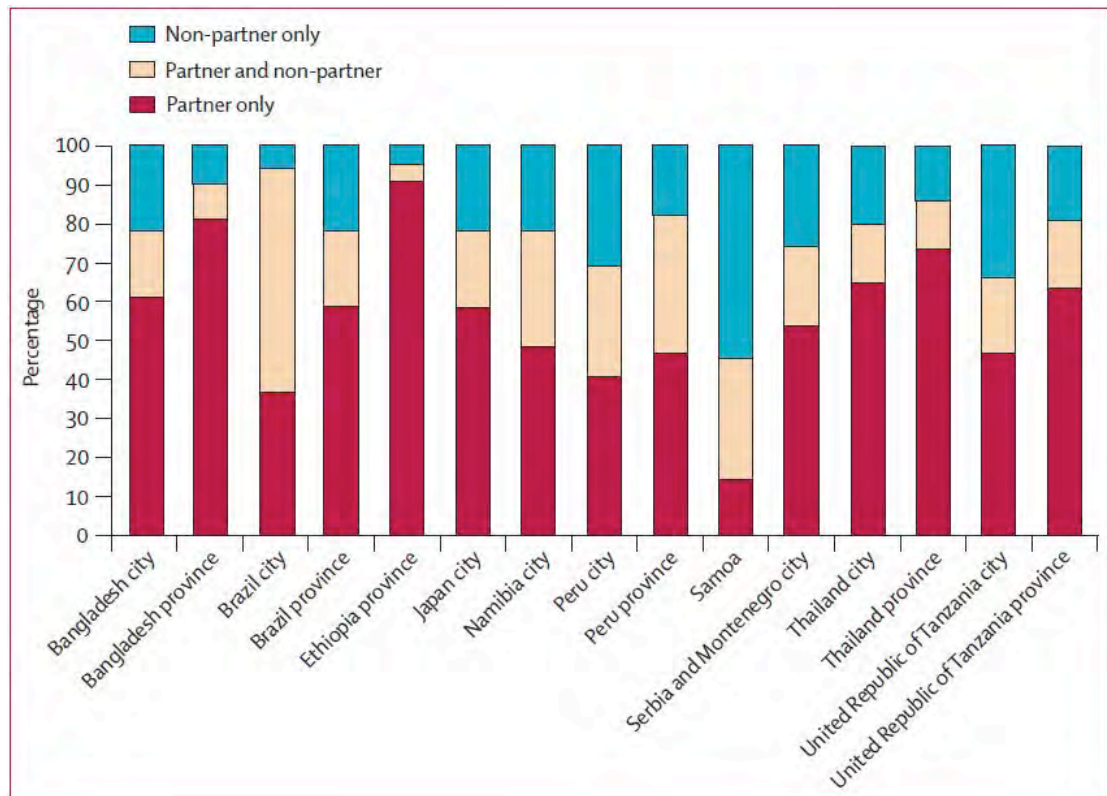
**Regional prevalence of interpersonal violence, percentage of ever-partnered women**

The World Health Organisation (WHO) multi-country study on women's health and domestic violence reported a lifetime prevalence of physical and / or sexual partner violence against women of between 15% and 71% (Japan city and Peru province).<sup>5</sup>

The WHO study was conducted in 15 sites in ten countries including Bangladesh, Brazil, Ethiopia, Japan, Namibia, Peru, Samoa, Serbia and Montenegro, Thailand and the United State of Tanzania. In all but one of these settings, women were found to be at greater risk of physical and sexual violence by a partner than from violence by other people. The study aimed to identify factors, which either protected women from or put women at risk of partner violence.

The WHO study focused on obtaining data from two contrasting settings in order to enable comparisons within countries. Standardized population based household surveys were undertaken between 2000 and 2003. The surveys were done in a capital or large city and in a rural area. The standardized structured questionnaire asked respondents about their experience of specific acts of physical or sexual violence by a current or former male partner. The lifetime prevalence of partner violence was defined as the proportion of ever-partner women who reported having experienced one or more acts of physical or sexual violence by a current or former partner at any point in their lives.

Questions on physical violence attempted to distinguish between moderate and severe violence. Moderate violence included being slapped, having something thrown at her, being pushed or being shoved. In contrast being hit with a fist or something else, which could hurt, being kicked, being dragged or beaten up, being choked, and the perpetrator threatening to use or actually using a gun, knife or other weapon against her was considered severe violence. The data for violence by partners and non-partners were combined to compare the relative proportions of women experiencing violence by different types of perpetrators. This is reflected in the graph below.



**Frequency distribution of partner and non-partner physical or sexual violence, or both, for women reporting such abuse since the age of 15 years, by site**

The results for Japan (Yokohama) and Serbia and Montenegro (Belgrade) were consistent with 12-month estimates of partner violence seen in other industrialized settings, including 1,5% in the USA, 4% in the UK, and 4% in Canada. This suggests that in these settings women have more options for leaving abusive relationships.

Data on the extent of the problem is important because of the need to convince public and policy makers that violence against women is a legitimate and significant social problem. It will also help in a bid for public attention and financial resources. Finally estimates of scope are needed to develop intervention strategies.

### **Limitations of previous studies**

Research into violence against women is restricted by the limitations of conducting the research in certain environments, as well as limitations of certain sources used.

There are three main sources of data on violence against women: official report data, clinical data, and social surveys. Hospital surveillance systems focus on violence that produces an injury. This is restricted to cases where women seek medical attention from an emergency room, rather than seeking no assistance or assistance from a private physician. Therefore hospital surveillance systems represent the incidence of

women seeking medical attention for intimate violence, and not the incidence or prevalence of violence against women. Data based on hospital or emergency department visits are also dependent on protocols for asking women about intimate partner violence.

Criminal justice surveillance systems consider the intent and consequence of the violence. The information collected includes offender/victim demographics, victim/offender relationship, time and place of occurrence, weapons used and victim injury. Of all forms of violence against women it would seem that homicide would be the most reliable and valid to measure, in terms of incidence. However the major limitation is that the perpetrator may not be known or described. A multi-method, multi-trait means of triangulating knowledge about the extent of violence toward women would be the most useful means of adding our knowledge about this problem.<sup>3</sup>

### **Ecological framework**

To understand the interplay of personal, situational and social-cultural factors, which combine to cause violence against women, researchers have increasingly used an “ecological framework.”<sup>6</sup> This is made up of four aspects: the individual, the family/intimate partner, the community and society. The ecological framework combines individual level risk factors with family, community and society level risk factors identified through cross cultural studies. It helps explain why some individuals and certain societies are more violent than others, in addition to explaining why women, especially wives are more at risk of violence against them within the family unit. Some factors combine to protect women. Women who have authority and power outside of the family unit tend to experience lower levels of intimate partner violence. When family members and friends intervene promptly, they appear to reduce the likelihood of domestic violence.

Several studies have identified a consistent list of events, which precipitate violence. These include not obeying the husband, talking back, questioning him about money or girlfriends, expressing suspicions of infidelity, refusing him sex, going somewhere without his permission, not having food ready on time, and failing to care adequately for children or home. These all represent transgressions of dominant gender norms in many societies.<sup>4</sup>

## **Ethical considerations**

There are multiple ethical and safety issues to consider when conducting research on violence against women. Informed consent must be obtained from the respondent; this incorporates the ethical principles of respect for autonomy and protection of vulnerable persons. Community support for research may need to be obtained in addition to individual consent. Confidentiality will ensure the woman's safety and data quality. Women requesting assistance must be provided with information on available support services, and in a resource poor environment short-term support mechanisms must be created. Beneficence is the ethical obligation to ensure benefit for the individual, and for the community by conducting the study. This can be through providing women with information on gender-based violence during the interview, as well as later interventions as a result of the research. Accuracy of the research is essential as underestimating the extent of violence may prevent intervention programs and resource allocation.

Not only must one ensure the safety of the respondent, but there is also the risk to the researcher who may be faced with a dangerous interview situation. Suggestions for minimizing harm to participants includes; interviewing only one woman per household, not informing the community that the study includes questions on violence, not interviewing men about violence in the same households where women have been asked, conducting the interviews in private, using self-response questionnaires, and emphasizing a woman's strengths by ending the interview on a positive note.<sup>4</sup>

During research conducted in Southern Africa, specifically the Three Province Study, respondents were advised, at the end of the interview, not to tell other people about the nature of the interview. No names or addresses were recorded, and verbal informed consent was obtained to maintain confidentiality. Their experience of research on gender-based violence highlighted the importance of maintaining high ethical standards, to protect the participants and the researchers. They also showed that it was possible to undertake major community based research in a developing country.<sup>7</sup>

## **Risk factors**

“Risk of violence against women is greatest in societies where the use of violence in many situations is a socially-accepted norm.”<sup>8</sup> Poverty, and the associated stress, is a key risk factor for violence against women. Further more, financial independence is not always protective. When the woman is working and the partner is unemployed, it may convey additional risk. This suggests that economic inequality in the context of poverty is more important than the level of income. Violence against women can be an expression of male dominance over women stemming from social expectations, which are not fulfilled because of poverty. Education, income, and community roles can all be sources of female empowerment, which seem to be protective against intimate partner violence. In the USA and South Africa, education is protective at the lowest and highest levels. Alcohol consumption is associated with increased intimate partner violence.

Poverty and inequality are key contributors to violence in South Africa.<sup>9</sup> They are closely linked to the dominant patriarchal constructions of masculinity, to alcohol and drug abuse, and to the proliferation of firearms. Income inequality and high levels of gender inequity are positive predictors of violence. In addition, unemployment and income inequality are consistently associated with homicide and major assault. More than a third of South Africans are unemployed. South Africa also has one of the highest alcohol consumptions per capita in the world. Women are often threatened with legal guns kept at home.

A previous cross-sectional study on the risk factors associated with domestic violence in South Africa showed that the lifetime prevalence of experiencing physical violence from a current or ex-husband or boyfriend was 24,6%.<sup>10</sup> The study published in 1998 was limited to three provinces viz Eastern Cape, Mpumalanga and the Northern Province. The risk factors associated with domestic violence included; violence during a woman’s childhood, not having tertiary education, liberal ideas on women’s roles, drinking alcohol, having another partner during that year and either partner financially supporting the home. This was the first representative study of violence against women in South Africa, which focused on risk factors for experiencing physical violence from an intimate partner. The control of women by men was noted to be very prominent in South African society. Furthermore, women were found to be tolerant of intimate partner violence, specifically amongst teenage

girls where they were reluctant to leave violent boyfriends even when they had no children or financial dependence on the relationship. The male partners of abused women were much less educated than the total sample, more likely to be unemployed and abused alcohol.

A large cross-sectional household survey conducted in eight southern African countries showed that the lowest rates of intimate partner violence came from Mozambique and Malawi (9%), and the highest rate was from Zambia (32%).<sup>11</sup> Unemployed individuals in households with some income were more likely to report intimate partner violence. Thus there was an association with income gradient rather than household income. Zambia was the only country where the level of education was associated with violence; a person who had not completed primary school was less likely to report a violent argument with a partner. Having multiple partners was the most consistent risk factor across all countries for intimate partner violence.

### **Violence against pregnant women**

A review of data from the United States and other developed countries found a prevalence of violence during pregnancy of between 0,9 and 20,1%.<sup>12</sup> The lowest estimates were from a private clinic where women responded to a self-administered questionnaire. These respondents were mostly older, married women of higher socioeconomic status. The studies, which reported higher estimates, used numerous very specific questions. However they could not identify whether the pattern of violence changed during pregnancy. It was suggested that further research be conducted where there was a direct comparison of the prevalence of violence during non-pregnant and pregnant periods.

A review of African studies on intimate partner violence during pregnancy found the prevalence to range from 2 to 57%.<sup>13</sup> Most of the studies showed prevalence above 27% (9 out of 13). The negative health outcomes were not only isolated to the women but also to the infant, and included pregnancy loss, preterm labour, hypertension, and low birth weight. Risk factors identified for intimate partner violence were younger age, low level of education, low socio-economic status, alcohol use and a history of abuse in the past 12 months.

A study in South Africa, which included 1395 interviews conducted at antenatal clinics in Soweto to estimate the prevalence of physical/sexual partner assault,

showed that 30% of the participants reported being physically and/or sexually assaulted by a male partner in the preceding 12 months.<sup>14</sup> The lifetime prevalence of physical and/or sexual assault by a male partner was 55.5%. The authors felt that the high lifetime prevalence found in this study may have reflected a higher disclosure, which was facilitated by the interview environment being away from the woman's home.

A study conducted in Pietermaritzburg Hospital complex, in South Africa on pregnant trauma patients, found that trauma was a result of intentional assault in 52% of the cases.<sup>15</sup> The patients intimate partner was the assailant in 55% of the cases. They attributed the high incidence of assault to low socio-economic status of the patients and an associated higher rate of alcohol abuse and violence.

### **Research in emergency departments**

Violence against women from emergency departments have mostly come from the United States. An emergency department based study from Philadelphia, included 405 women who had been intentionally injured, and compared them to 520 women who had health problems unrelated to violent injury.<sup>16</sup> Data was collected by conducting standardised interviews on sociodemographics, alcohol and substance abuse, circumstances of the event, previous exposure to violence, and sociodemographics of partner. 187 women reported being intentionally injured by a male partner compared to 213 women who reported intentional injury inflicted by other persons, the latter included acquaintances, family members or strangers. The mechanism of injuries included being beaten with fists or household objects (88%), being stabbed (12%) or shot (1%).

A study from Denver included two academic emergency departments, two hospital walk in clinics, and a private hospital emergency department.<sup>17</sup> There were 648 participants. The incidence of domestic violence of 418 women with a current male partner was 11.7%. Only 11 (22%) of these women had presented because of an acute injury. The cumulative lifetime prevalence of domestic violence exposure was 54%.

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## **Article**

### **Violence against women**

A prospective study of women presenting to a South African Trauma Centre

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Violence against woman has become widely recognised as a significant social problem and major public health issue. <sup>[1-6]</sup> It has become a crisis in almost all societies and represents a violation of women's rights. Documenting the magnitude of the problem and producing reliable comparative data to guide policy and monitor progress is difficult. One of the challenges is that, because of the sensitivity of the subject, violence against women is almost universally underreported. Furthermore most studies on intimate partner violence in South Africa have been conducted in the community or in the work place and have focused on intimate partner violence or domestic violence encompassing physical, sexual and emotional abuse. <sup>[7-12]</sup>

The current study was carried out in a hospital environment and focused on women presenting to a major Trauma Centre, who had been assaulted, by either an intimate partner or any other person.

### **Patients and Methods**

All female patients presenting to the Trauma Centre at Groote Schuur Hospital with injuries secondary to an assault, over a six-month period between November 2008 and April 2009, were included in the study.

In this prospective study a standardized structured questionnaire was administered to all study participants, by either a medical doctor or a senior medical student in a face-to-face interview. The interview was conducted in private, after informed consent was obtained. The questionnaires were available in English, Afrikaans and Xhosa.

The questionnaire include details of the demographics of the patient (age, race), level of education, the employment status, type of housing, place of origin, and history of / current alcohol and substance abuse. The following details of the perpetrator were also captured: demographics (age, race), level of education, history of /current alcohol and substance abuse, history of previous criminal record, and involvement in gangsterism. The relationship of the perpetrator to the patient was noted i.e. husband/partner, ex-husband/previous partner, family member, acquaintance or unknown person. The circumstances related to the assault (financial, sexual, robbery, alcohol/drug intoxication, unknown), the object used (fist, foot, bite, blunt object, knife, firearm), the injuries sustained in the assault, and other types of abuse were also noted.

The injuries sustained were treated using standardized protocols available in the Trauma Centre. In particular, all patients were seen by the social worker to assess the safety of the home environment before discharge.

Patients were excluded from the study if they were not fluent in English, Afrikaans or Xhosa, presence of psychosis, and persistent diminished level of consciousness (Glasgow Coma Score < 15/15) during the admission.

The Human Ethics Committee of the Faculty of Health Sciences approved the study (Project 2008/066, Project 2013/138).

## **Results**

Of the 118 questionnaires administered, 17 were excluded because the data was incomplete. A total of 101 questionnaires were included in the analysis.

### **Patient details**

The patient details are shown in Table 1. The mean age of the women in the study was 29.7 +/- 8.7 years (range 15 to 56 years). The highest level of education attained was primary school in 24%, secondary school in 63%, and tertiary education in 11%. Forty two percent of the women in the study were employed, 56% were unemployed and 2% were students. The majority of the patients lived in formal housing (n=74), compared to 25 patients living in informal housing, and two who were homeless. There was a history of alcohol use in 61% of the patients. Fifty percent of the patients consumed less than 7 units of alcohol per week, and 11% more than 7 units of alcohol per week. Eight percent of the patients gave a history of using marijuana and three percent admitted using; either cocaine, heroin or tik.

### **Perpetrator details**

The details of the perpetrator of the assault are shown in Table 2. The gender of the perpetrator was recorded in 98 interviews; 86% (n=84) were male, 11%(n=11) were female and three percent (n=3) involved both genders. The mean age of the perpetrator was 31.1 +/- 9.7 years (range 16-67years). The relationship of the perpetrator to the victim of the assault was recorded in 99 interviews. In 48% of the assaults the perpetrator was the husband/partner, 22% involved an acquaintance, six percent involved a family member, and two percent involved an ex-husband/partner. In 22% the assault involved an unrelated person.

The level of education of the perpetrator was recorded in 58 of the interviews. Twenty two percent of the perpetrators only had primary school education, 66% (n=38) had secondary school education and twelve percent (n=7) had tertiary education.

The abuse of alcohol/substances amongst the perpetrators was recorded in 78 interviews. Forty-three (55%) of the perpetrators were reported to consume more than 7 units of alcohol per week, seventeen (22%) were reported to consume less than 7 units of alcohol per week, and 18(23%) apparently did not have a history of alcohol use. There was a history of marijuana use in 18(18%) of the perpetrators and a history of cocaine, heroin or tik use in 19(19%) of the perpetrators.

According to the victims, 33 of the perpetrators had a previous criminal record. Twenty of the perpetrators were reported to be involved in gangsterism.

The reason for the assault included a financial dispute (n=14), a domestic argument (n=2), alcohol/drug intoxication (n=18), sexual (n=11), and theft (n=12). The reason for the assault was not known in 33 cases.

The mechanism of injury included being punched (n=32), kicked (n=17), bitten 9(n=4), raped (n=2), beaten with a blunt weapon (n=36), stabbed with a knife (n=30) and wounded with a firearm (n=7) (figure 11). More than one mechanism of injury accounted for 18% of the assaults.

### **Injuries sustained**

The list of injuries sustained is shown in Table 3 and Table 4. There were a greater number of patients with blunt injuries (n=118) than penetrating injuries (n=50).

Most of the blunt injuries were to the head and neck (n=33), the face (n=45) and the extremities (n=32). There were hardly any injuries to the thorax and abdomen (n=8). Sixty-six percent of the blunt injuries were to the head and neck, and face. Sixty-nine (58%) of the blunt injuries were of a minor nature and included abrasions, lacerations and burns. There were 49(42%) blunt injuries, which were regarded as severe, and included skull fractures, facial fractures, and long bone fractures in the upper and lower limbs.

In contrast to the blunt injuries, only 20% of the penetrating injuries involved the head and neck, and face. Twenty-nine (58%) of the penetrating injuries were of

minor nature and included lacerations of the limbs, and lacerations of the thorax and abdomen, which did not penetrate the body compartment. Twenty-one (42%) of the penetrating injuries were regarded as severe and included haemothoraces, intra-abdominal visceral injuries, vascular injuries and upper limb nerve injuries.

The proportion of minor injuries and severe injuries were similar for blunt and penetrating injuries (58% versus 42%).

## **Discussion**

Violence against women is widely recognized as being a major social problem.<sup>[1-6]</sup> In order to address this crisis, it is necessary to identify and understand the risk factors associated with violence against women. Previous studies on the problem have almost exclusively involved cross-sectional surveys. Almost all the research on violence against women undertaken in emergency departments has come from the United States.<sup>[13,14]</sup> Thus the current audit of women attending the Trauma Centre at Groote Schuur Hospital following an assault is novel for a low-middle income country.

In this study, all female patients attending the Trauma Centre following an assault over a six-month period were subjected to a standardized questionnaire, which was designed to gather information about both the victim and the perpetrator of the assault, in order to identify the risk factors associated with the assault. A total of 118 female patients were treated in the Trauma Centre following an assault and 101 patients were included in the analysis.

This study confirmed that intimate partner violence was the commonest form of violence. Forty-eight percent of the assaulted involved either the husband or current partner. It is worth noting that in 78% of the cases the victim knew the perpetrator. Only 22% of the assaults were by an unknown person.

The level of education does not appear to be a risk factor. The highest level of education attained by the victims was primary school in 24%, secondary school in 63% and tertiary education in 11%, which is probably similar to the general population. The highest level of education obtained by perpetrators was similar. It is worth noting that 12% of the perpetrators had had attained tertiary education. It would therefore appear that higher level of education does not necessarily protect the

victim against violence, and could arguably increase the risk, especially if the intimate partner has a lower level of education.

Substance abuse was not considered to be a risk factor. Only 11% of patients gave a history of consuming more than seven unit of alcohol per week. Furthermore, only eight percent of patients abused marijuana and three percent of patients abused cocaine, heroin or tik. In contrast, a significantly greater number of the perpetrators were reported to consume more than seven unit of alcohol per week (55%) and abuse marijuana (18%), and cocaine, heroin or tik (19%). Unfortunately it was not recorded whether either the victim or the perpetrator was under the influence of alcohol or drugs at the time of the assault.

What is of concern is the severity of the injuries sustained. Forty-two percent of both the blunt and the penetrating injuries were classified as severe and included skull fractures, facial fractures, long bone fractures, intra-thoracic injuries and intra-abdominal visceral injuries. All of the injuries required a significant level of violence. This is hard to believe since in the majority of instances the perpetrator was the intimate partner.

The advantage of this study, which was undertaken in a busy trauma unit, is that it captured all the women who were victims of an assault and attended a hospital. It was possible to accurately capture the relevant details about the victim and injuries sustained, and to some extent the details of the perpetrator. The major limitation of the study is that may only reflect the tip of the iceberg since it is possible that a large number of victims of violence against women did not attend hospital.

The major shortcoming of the study was that there was no control group, to which direct comparison could be made. Thus the patient population presenting to the emergency unit may have confounded the conclusions stated.

As perpetrator demographics could only be accurately documented for sex and relationship, it was difficult to draw any conclusions on level of education, substance abuse, criminal history and involvement in gangsterism as risk factors for violence.

## **Conclusion**

This study it was restricted to women who were seeking medical attention for severe or life threatening injuries related to violence against women. It therefore represented the incidence of women seeking medical attention for intimate violence not the

incidence or prevalence of violence against women. It did however confirm that intimate partner violence was the most common form of abuse that women experienced. Preventative strategies should focus on this.

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Victim Demographics	
Age	15-56 years (mean 29,7 +/- 8,7)
Level of Education	
Primary School	24 (24%)
High School	62 (61%)
Tertiary Education	11 (11%)
No Education	1 (1%)
Unrecorded	3 (3%)
Employment Status	
Employed	42 (42%)
Unemployed	57 (56%)
Student	2 (2%)
Housing	
Formal Structure	74 (73%)
Informal	25 (25%)
Homeless	2 (2%)
Substance Abuse	
< 7 units of alcohol/week	48 (48%)
> 7 units of alcohol/week	11 (11%)
Marijuana	8 (8%)
Cocaine, Heroine or Tik	2 (2%)

Table 1 Victim Demographics

<b>Perpetrator Demographics</b>	
<b>Sex</b>	
Male	84 (83%)
Female	11 (11%)
Male & Female	3 (3%)
Unrecorded	3 (3%)
<b>Relationship</b>	
Husband / Current Partner	49 (48%)
Ex-husband / Previous Partner	2 (2%)
Family Member	6 (6%)
Acquaintance	22 (22%)
Unknown Person	22 (22%)
<b>Age</b>	16-67 years (mean 31,1 +/- 9,7)
<b>Level of Education</b>	
Primary School	13 (22%)
High School	38 (66%)
Tertiary Education	7 (12%)
<b>Substance Abuse</b>	
< 7 units of alcohol/week	17 (22%)
>7 units of alcohol/week	43 (55%)
Marijuana	18 (18%)
Cocaine, Heroine or Tik	19 (19%)
Previous Criminal Charges	33 (33%)
Involvement in gangsterism	20 (22%)

Table 2 Perpetrator Demographics

## Blunt Injuries Sustained:

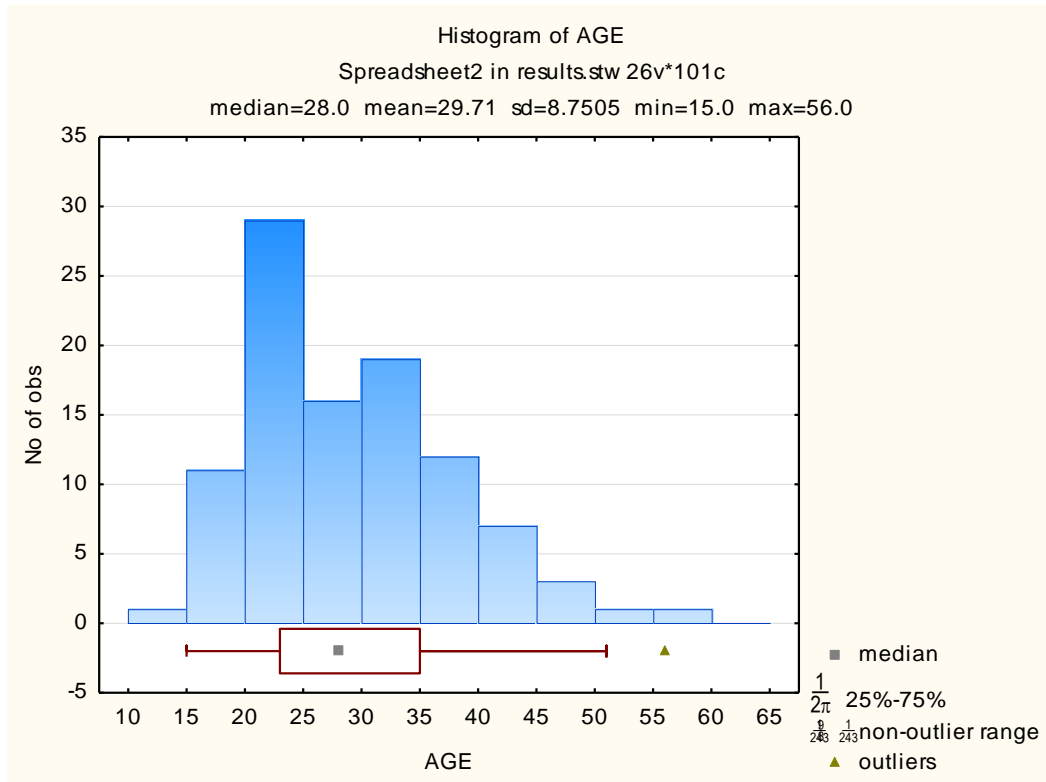
	Minor	n	Severe	n
Head and Neck:	scalp abrasion/contusion (4), scalp laceration (13), scalp burn (1)	18	linear skull fracture (1), depressed skull fracture (3), closed head injury (7), cerebral contusion (1), subdural haemorrhage (2), cervical vertebral fracture (1)	15
Face:	facial abrasion/contusion (14), facial laceration (15), burn (1), tooth avulsion (1)	31	nasal fracture (4), le fort fracture (2), corneal abrasion (2), orbital fracture (1), zygoma fracture (1), mandible fracture (4)	14
Thorax:	rib cage contusion (3), burn (1)	4	rib fracture (2)	2
Abdomen:	abrasion/contusion (2)	2		
Extremities:	limb abrasion/contusion (12), burn (2)	14	CRUSH injury (2), finger fracture (4), metacarpal fracture (3), humerus fracture (1), shoulder dislocation (1), tibia fracture (2), fibula fracture (2), calcaneal fracture (2), ligamentous knee injury (1)	18
		<b>69 (58%)</b>		<b>49 (42%)</b>

Table 3

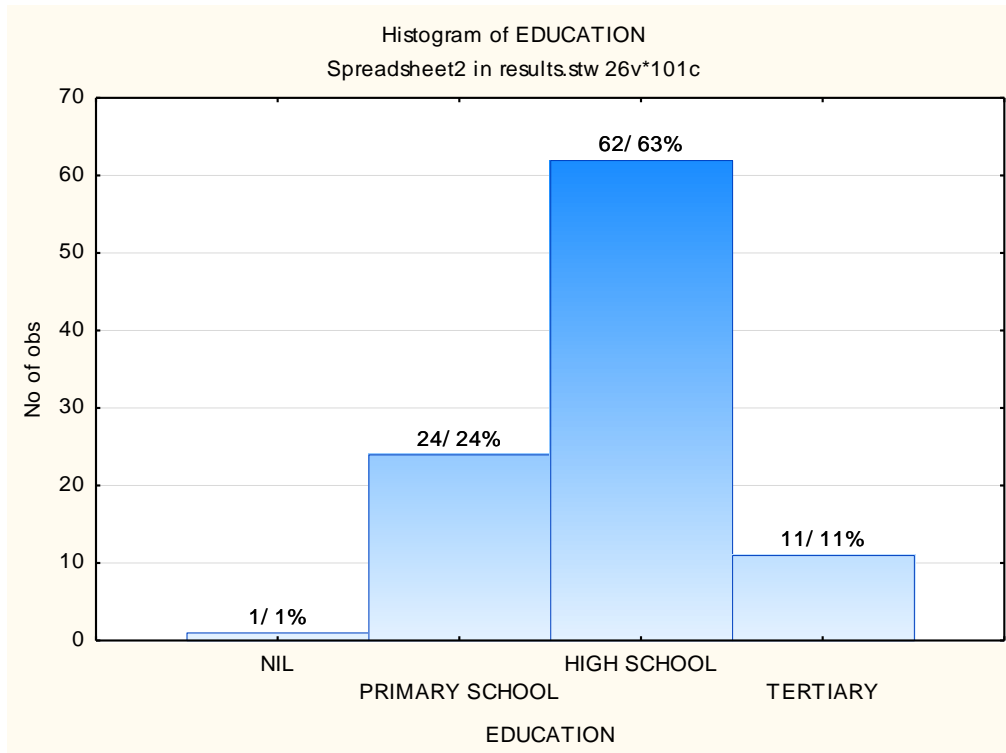
## Penetrating Injuries Sustained:

	<b>Minor</b>	<b>n</b>	<b>Severe</b>	<b>n</b>
<u>Head and Neck:</u>	penetrating injury with no organ involvement (3)	3	tracheal laceration (1), cord contusion with incomplete cord syndrome (1)	2
<u>Face:</u>	degloving of nose (1), degloving of lip (1)	2	corneal laceration (2), loss of vision (1)	3
<u>Thorax:</u>	penetrating injury with no violation of pleural cavity (8)	8	haemothorax (5), complete spinal injury (2)	7
<u>Abdomen:</u>	penetrating injury with no peritoneal penetration (1)	1	liver laceration (2), renal laceration (1), small bowel laceration (1), internal iliac artery laceration (1)	5
<u>Extremities:</u>	limb laceration (15)	15	vascular laceration (2), brachial plexus laceration (1), ulna nerve laceration (1)	4
		<b>29 (58%)</b>		<b>21 (42%)</b>

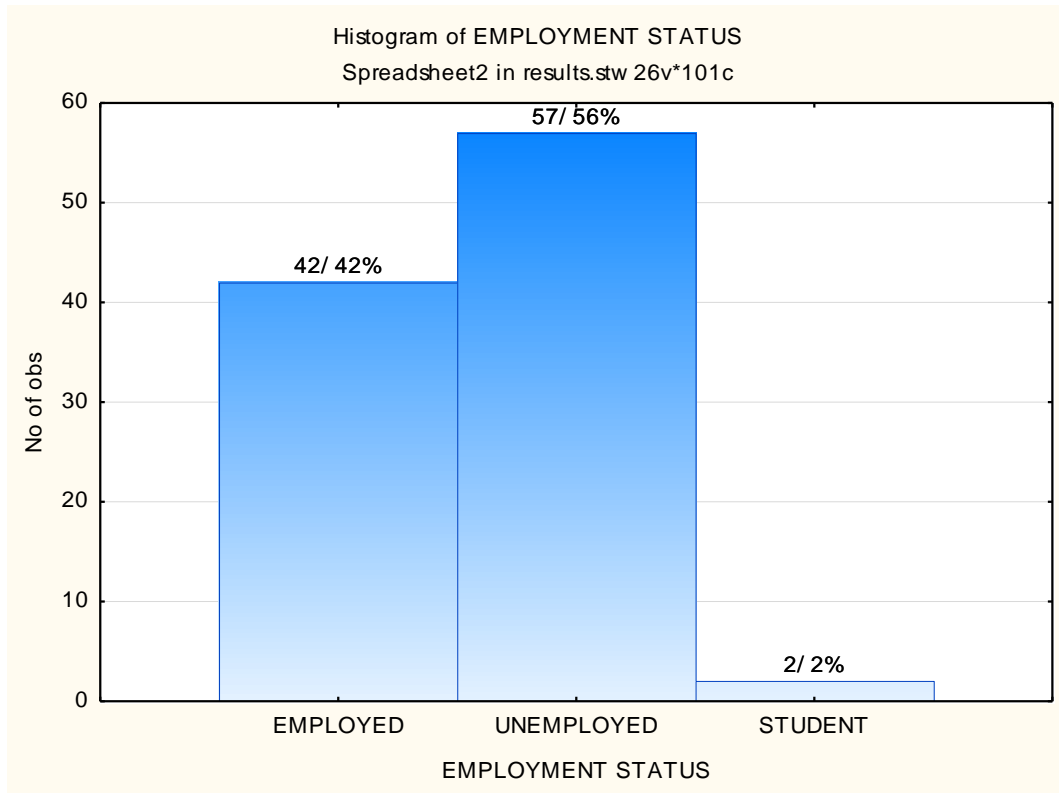
Table 4



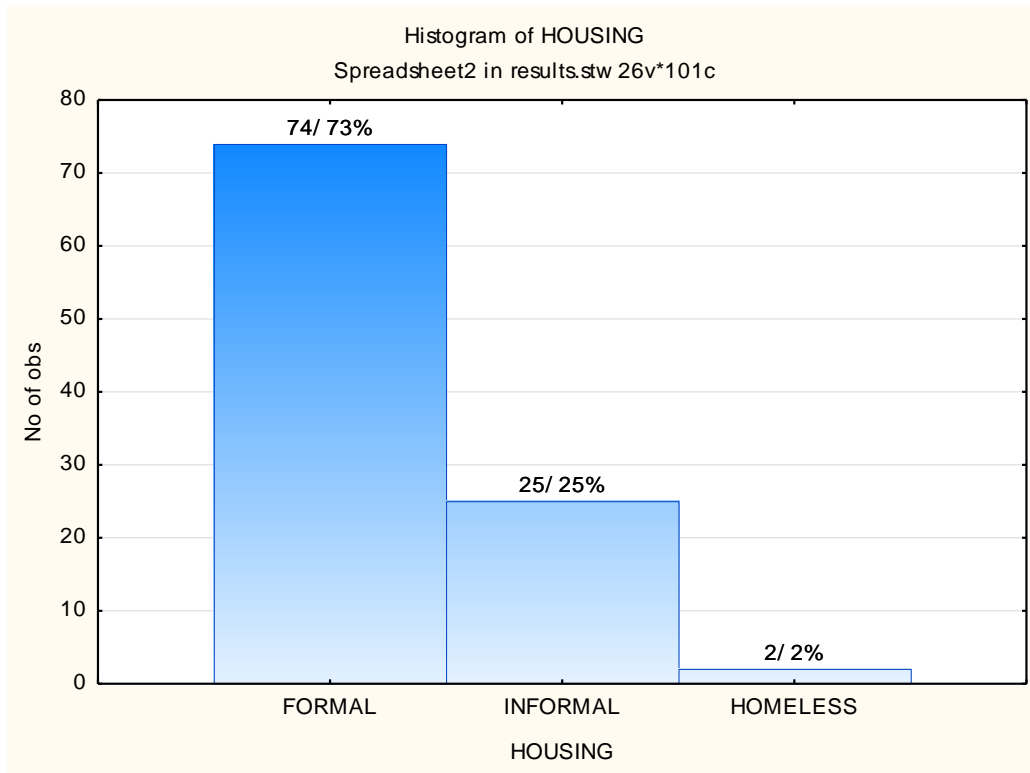
**Figure 1 Histogram of Victim Age**



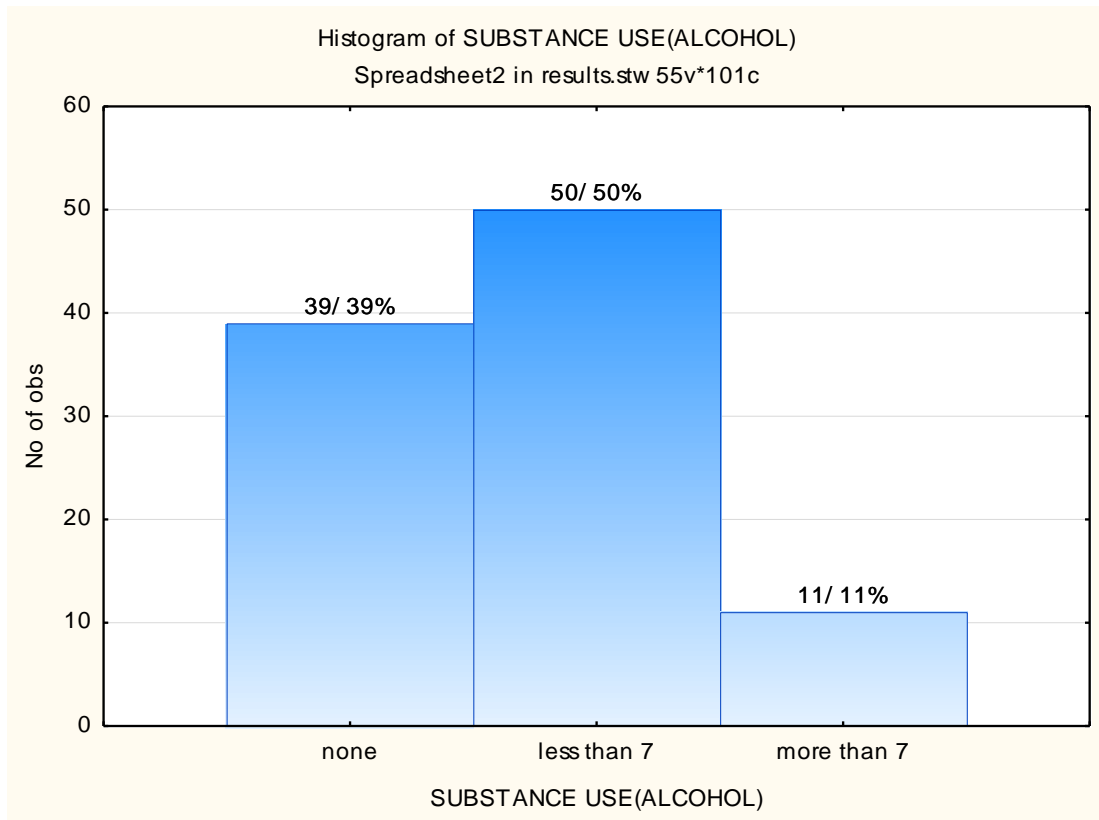
**Figure 2 Histogram of Victim Level of Education**



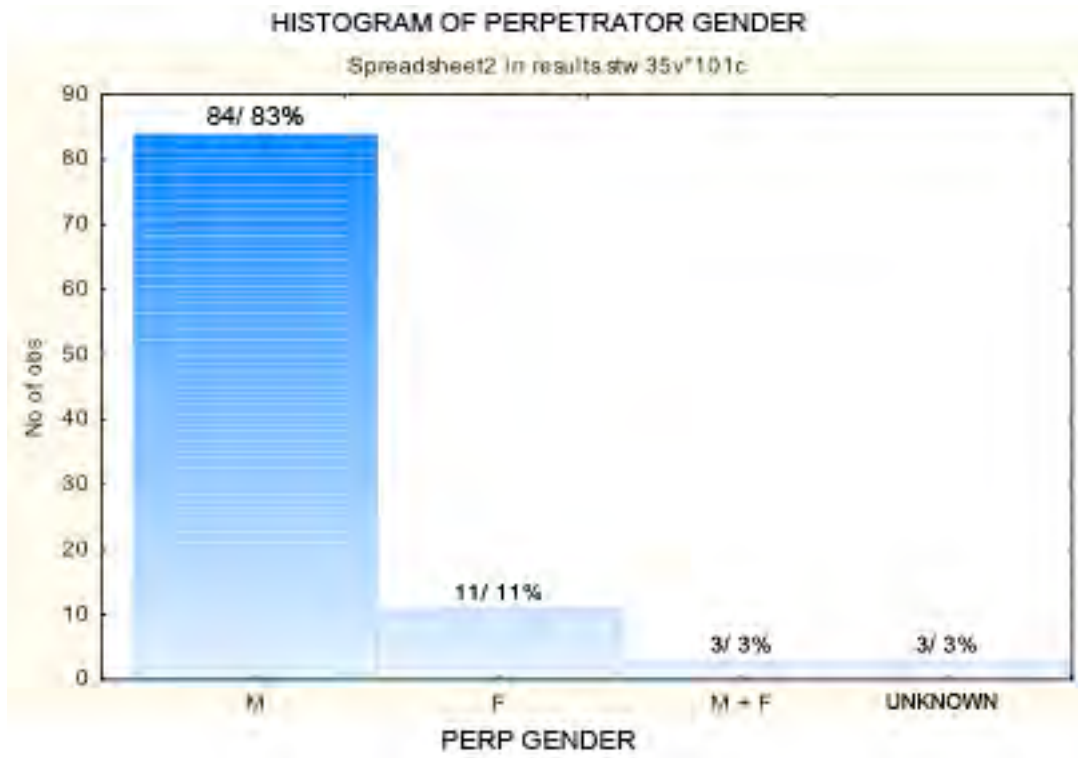
**Figure 3 Histogram of Victim Employment Status**



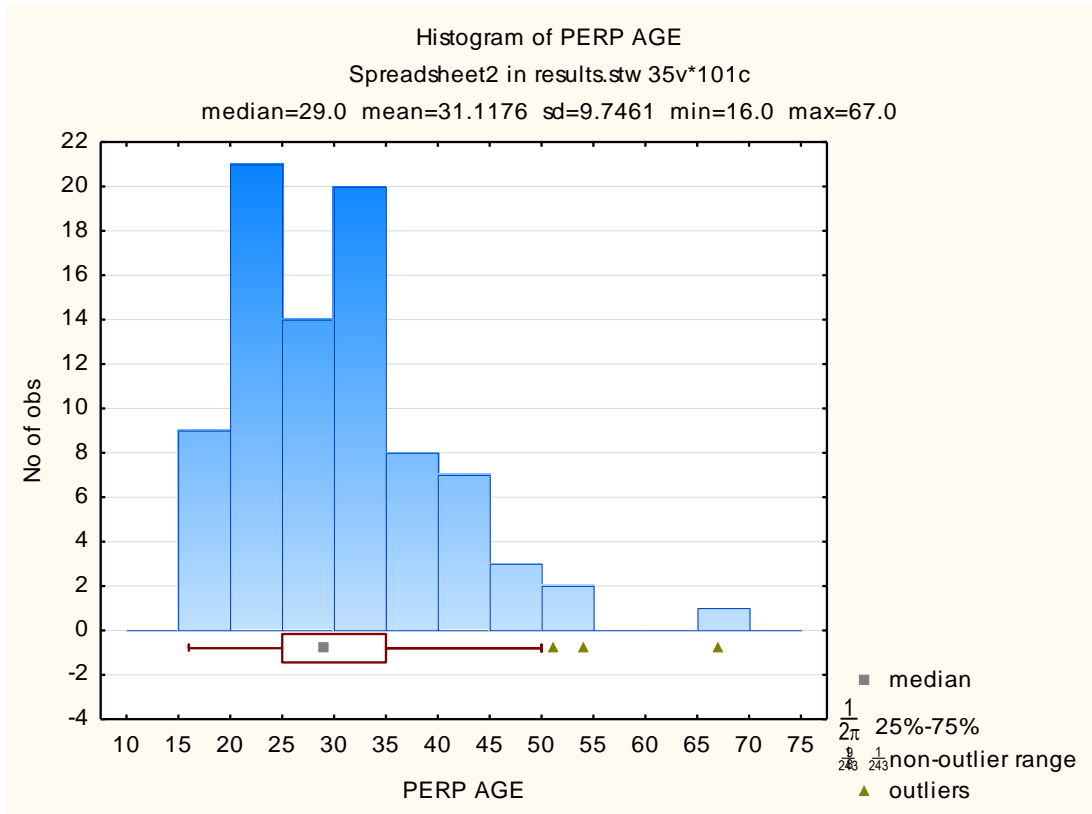
**Figure 4 Histogram of Victim Housing**



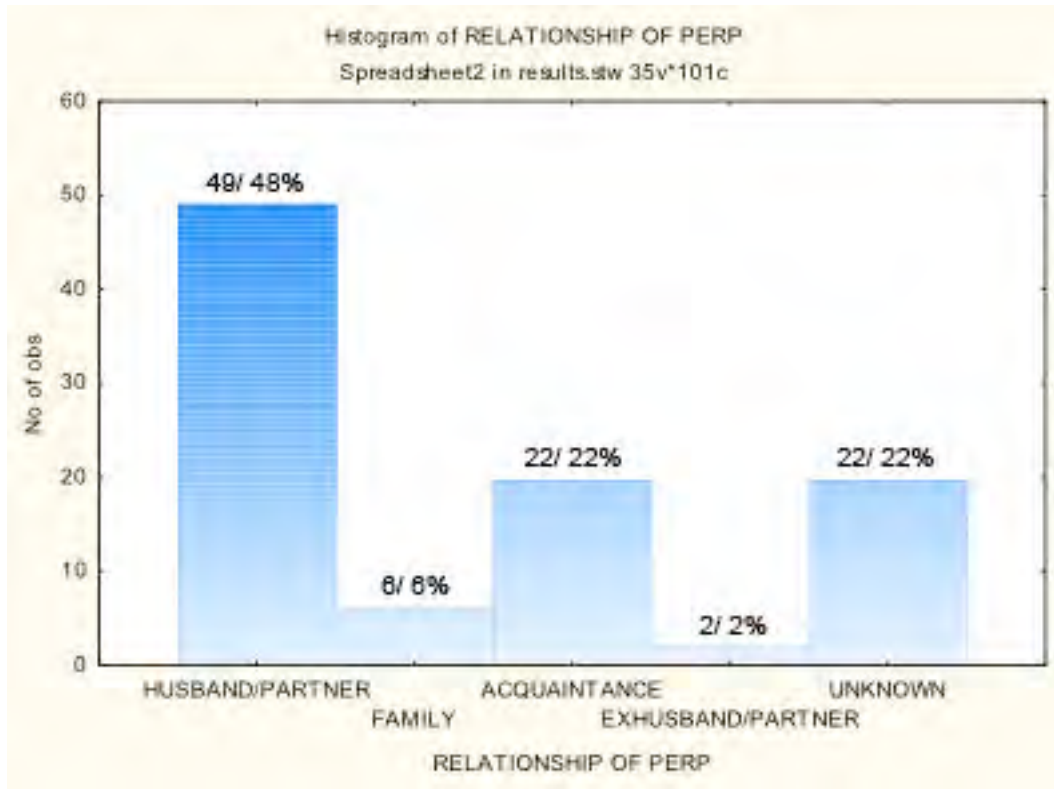
**Figure 5 Histogram of Alcohol Use by Victim**



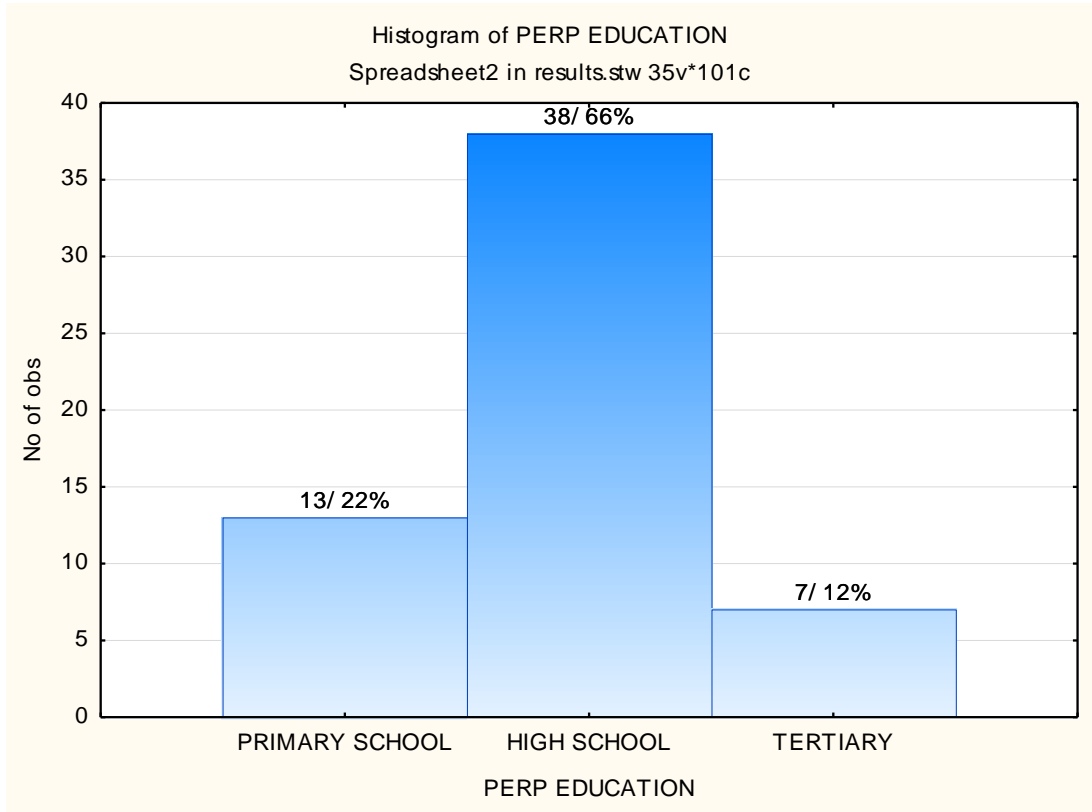
**Figure 6 Histogram of Perpetrator Gender**



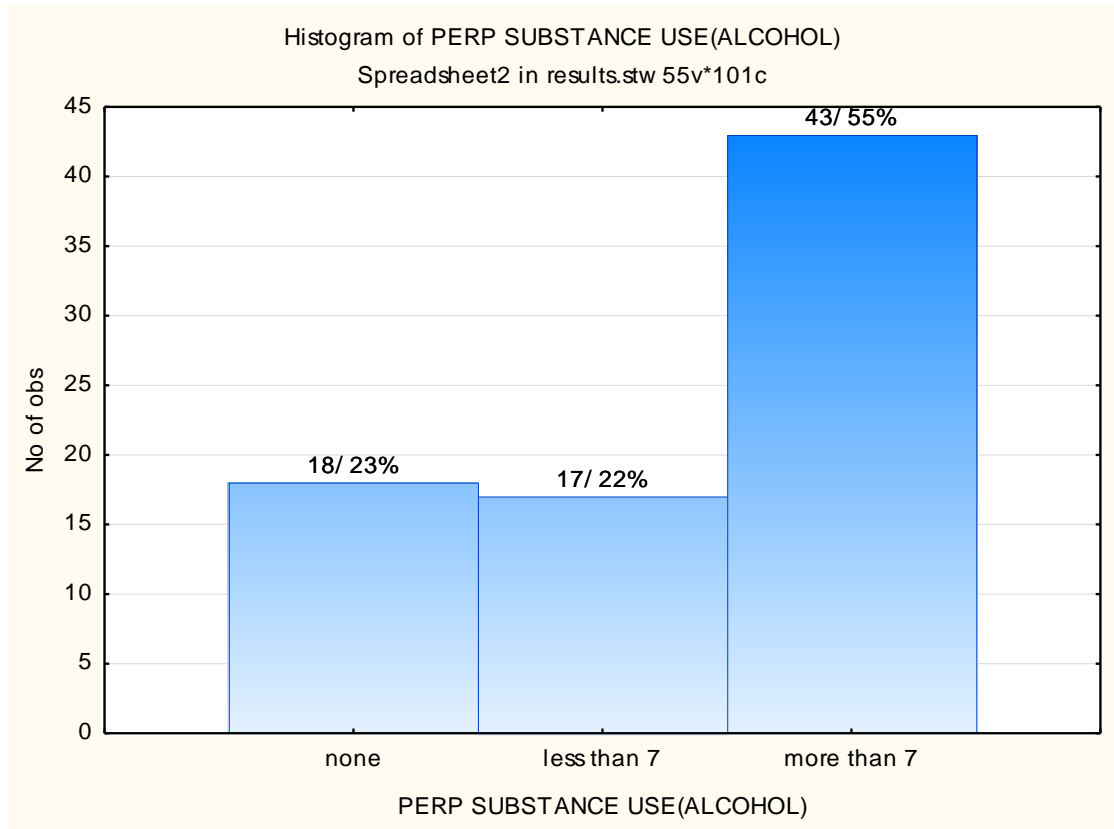
**Figure 7 Histogram of Perpetrator Age**



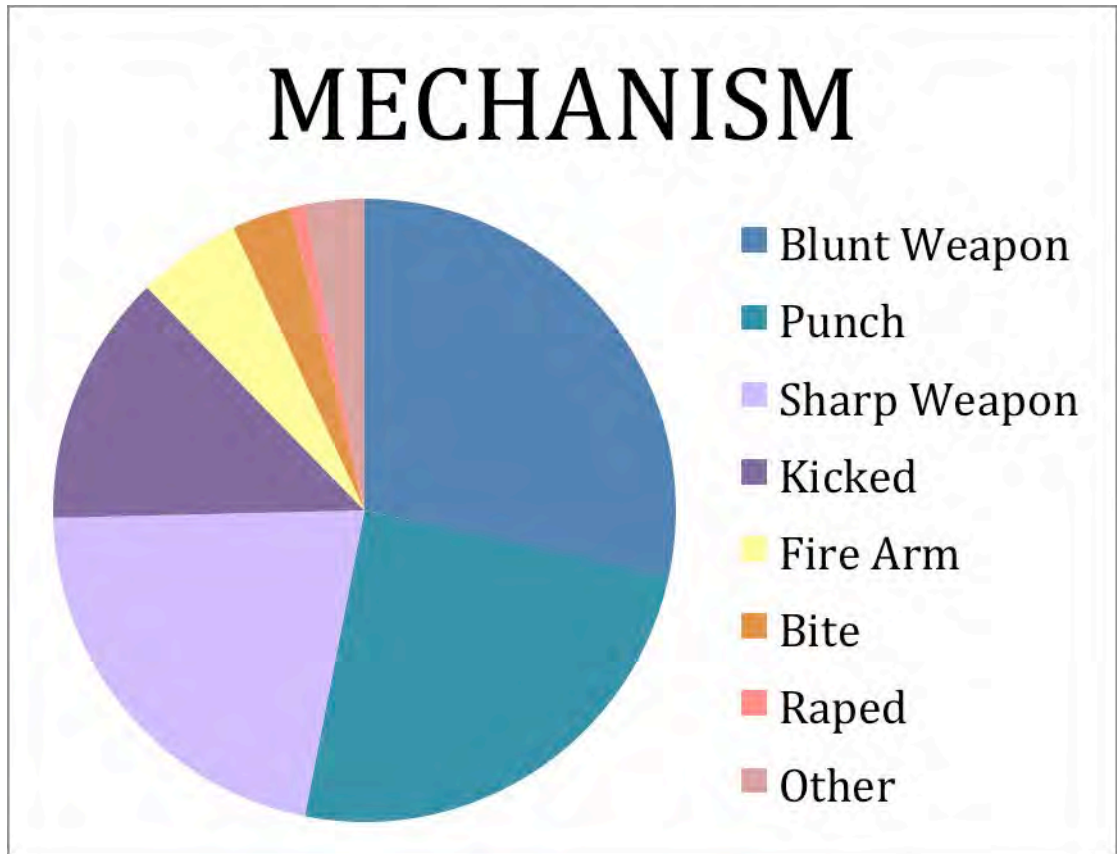
**Figure 8 Histogram of Relationship of Perpetrator to the Victim**



**Figure 9 Histogram of Perpetrator Level of Education**



**Figure 10 Histogram of Alcohol Use by Perpetrator**



**Figure 11 Mechanism of Injury**

**Violence Against Women Questionnaire**

**Victim Details**

Age

Race	African	Asian	
	Coloured	White	
	Other		

Origin	Province	
	Country	

Education	Primary	
	High School	
	Tertiary	

Number of Children

Work	Employed	
	Unemployed	

Housing	Formal	
	Informal	
	Homeless	

Social	Smoker	
	Alcohol <7 units/week	
	Alcohol >7 units/week	
	Marijuana	
	Cocaine/Heroin/Tik	

**Details of Abuser**

Perpetrator	Male	Female	
	Is he/she a gang member?		
	Has he/she ever been arrested		
	Is this recurrent abuse		

Relationship of perpetrator	Family member	
	Acquaintance	
	Husband/Partner	
	Unknown	

Age

Race	African	Asian	
	Coloured	White	
	Other		

Education	Primary	
	High School	
	Tertiary	

Social	Smoker	
	Alcohol <7 units/week	
	Alcohol >7 units/week	
	Marijuana	
	Cocaine/Heroin/Tik	

**Details of Abuse**

Reason for assault	Financial	
	Sexual	
	Theft	
	Alcohol/Drug Intoxication	
	Unknown	

Object Used	Firearm	Knife	
	Blunt	Fist	
	Foot	Bite	

Injuries sustained		

Outcome	Discharged	
	Admitted	
	Speciality referral	
	Theatre	
	Died	

Type of abuse	Verbal	Physical	
	Psychological	Harassment	
	Intimidation		

How many different people have assaulted you in the past?

How many times have you been assaulted in the last year

Does the abuse occur in public

Action	Have you reported this incident	
	Are you planning on reporting this incident	

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**Internet references:** World Health Organization. The World Health Report 2002 – Reducing Risks, Promoting Healthy Life. Geneva: World Health Organization, 2002. <http://www.who.int/whr/2002> (accessed 16 January 2010).

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