Patterns of rape in Pietermaritzburg:

A pilot study

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For those who have been raped, heard or unheard,
and bravely survive.

Except where indicated, the research is my own work and has not been published before.

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ABSTRACT

The study investigates the profile of rape in Pietermaritzburg and surrounding area. The data were generated by retrospective review of 691 rape survivors' records from October 2002 to December 2004. Numerous variables were analyzed using frequencies, chi-square and multiple regression. Patterns that emerged from the data help to describe rape as recorded by staff at the local Rape Crisis Centre where the administration of anti-retroviral and Post-exposure Prophylaxis medication following rape is monitored. The HIV status of the survivors was analyzed and incidence found to be comparable to UNAIDS (2006) statistics.

Many patterns were identified in the data. For example, survivor age was associated with other variables including; race of the perpetrator, day of the week, type of violence used, location and relationship between survivor and perpetrator. Furthermore, relationship to perpetrator was found to impact on time delay before reporting, location and number of perpetrators.

CHAPTER 1: INTRODUCTION

Rape is an international concern. "Violence against women is a major contributor to the ill-health of girls and women" (WHO, 2006a, p.vi). Internationally, one in five women have suffered some form of sexual assault, and in some countries up to one-third of women were forced during their first sexual experience (WHO, 2006a). Gender violence is "a major obstacle to development" (Garcia-Moreno, 2005, p.i). Despite this and in light of the growing health concerns surrounding the spread of HIV/AIDS, Garcia-Moreno (2005) believes violence against women continues to receive "an unjustifiably low priority on the international development agenda and in planning, programming and budgeting" (Garcia-Moreno, 2005, p.i). There is a limited research base available on which to build specialist knowledge and develop interventions in the area of sexual violence (Abrahams, Jewkes, Hoffman & Laubsher, 2004). International bodies have highlighted the challenges facing rape research and its negative impact on public health (WHO, 2004).

Rape is a challenging area to research for several reasons. Reported rapes appear to represent a small proportion of actual incidence (Jewkes, Levin, Mbananga & Bradshaw, 2002); flawed methodological choices in research result in underdetection of incidence (Koss, 1992); coerced consensual sex appears to be a common problem and is difficult to identify (Jewkes & Abrahams, 2002) and domestic violence is often not considered to be rape (Nduru, 2005). Furthermore, although rape is ultimately a result of male behaviour, most of the research has focused on the experience of women (Abrahams et al., 2004).

American and European literature describes the epidemiology of rape in the developed world, but there is a limited amount of comparable South African data on the subject. Owing to South Africa's history of Apartheid, multi-cultural society and wide-spread poverty, South Africa's situation is not directly comparable to Western countries and much of the current research may not be generalizable to this country. Many developing countries lack the infrastructure necessary for accurate reporting and hence do not have a substantial body of survey data (Jewkes & Abrahams, 2002).

There appear to be identifiable differences between a rape-free and a rape-prone society. The literature suggests that this differentiation is based essentially on cultural and social differences (Sanday, 2003).

The history of Apartheid has been held largely accountable for the high incidence of rape in South Africa, for numerous reasons, including displacement of aggression and emasculation (Robertson, 1998). In the search for an identity within post-Apartheid South Africa, gang activities have also contributed to the construction and maintenance of a personal identity. This gang identity is likely to include the concept and expression of masculinity, which, it seems, is a risk factor in the incidence of rape (Hill & Fisher, 2001; Woodward, 2000).

The present study investigates patterns of rape in a small metropolitan area by analysing the statistics generated by the local Rape Crisis Centre. It is based on quantitative analysis of the survivor records following the report of the rape. Results are reported as descriptive findings and significant associations between variables. Although numerous qualitative questions are generated from the findings, the discussion of the results is largely hypothetical yet grounded in the limited local research available. This thesis intends to lay the foundation for future qualitative research in the area of rape. Rape is described as a culturally informed, social crime. This research has begun to extend Western understanding of sexual assault and to identify characteristics within South African research bodies. A variety of theories on rape are discussed in an attempt to understand the phenomenon within the South African context.

1.1 THEORIES OF RAPE

The first difficulty encountered when discussing rape is its operationalisation. In order to identify a pattern of behaviour, that behaviour first has to be systematically described and understood within a number of contexts and from numerous perspectives. Most theories of rape found in the literature are grounded in a Western paradigm. However, they provide a useful baseline for further debate and comparison with the South African context. Francis (1996) states that, "Rape is criminal. Rape is gendered. Rape is sexual." [p.vii]. This definition is problematic for various philosophical reasons: evolutionists may believe that

rape is 'natural', not criminal (Thornhill & Palmer, 2000); correctional facility officials may dispute that it is gendered, as it occurs with frequency in male prisons as a method of establishing status in the hierarchy (Sanday 1990 in Sanday, 2003); and feminists vehemently deny that rape is for sexual gratification, although that may be a secondary motivation, with power and control being the main motivating factors (Rada, 1978 in Tobach & Reed, 2003). Labuschagne (2006) describes rape as "a sexual behaviour to satisfy non-sexual needs: power, anger and self-esteem" (p.1). In the following section, several theories of rape are briefly discussed and, as far as possible, applied to the South African context.

1.1.1 Evolutionism

Evolutionary theorists suggest that men rape in order to maximize the chance of spreading their genes (Thornhill & Palmer, 2000), so are therefore motivated by reproduction (Kimmel, 2003). They explain rape in terms of opportunistic occurrences. During the Bosnian war between 1992-1995, rape was described as a process of "ethnic cleansing" (Hargreaves, 2004, p. 1916). However, this theory does not account for human agency or moral reasoning, which, it is thought, are two of the criteria that separate human beings from the animal species (Kimmel, 2003).

1.1.2 Feminism

The feminist stance offers a range of perspectives on rape, varying from the personal choices women have with regard to sex, to the social contexts within which women make those choices (Francis, 1996). Brownmiller (1975) describes rape "as nothing more or less than a conscious process of intimidation by which *all men* keep *all women* in a state of fear" (p.viii cited in Francis, 1996). This viewpoint is also identified in the description of the treatment of women during times of war. The nine year-long civil war in Sierra Leone is another grim example of women being both humiliated and impregnated during political conflict (Bogert & Dufka, 2001). Rape becomes used as a weapon and means of oppression in this and other examples of war.

The South African struggle for liberation from Apartheid appears to have many similarities with other wars in terms of the treatment of women. Mtintso (in Goldblatt & Meintjes, 1998)

describes her experiences of interrogation during detention as "one of constant physical assault and abuse of her womanhood" (p.231), as most of the beatings were concentrated around the area of her womb. She described how in the early days women were treated "as if they were simply the bed-fellows of the men" (p.231). Women became victims of the Apartheid conflict when they were captured and sexually abused in order to humiliate men by highlighting their inefficiency in protecting their women. These women were personally humiliated by being kept as sex slaves in the hostels (Goldblatt & Meintjes, 1998). Unfortunately, the difficulty of detecting or proving rape makes it an extremely effective means of terrorising during war (Alakija, 2000).

On the other end of the feminist continuum, Sanday (2003) describes a society in which men and women play an equal role in shaping public processes, where mutual respect in all relations (including sexual relationships) is highly valued. In this society there is no masculine culture dominating social norms. In such a society rape is rare and sexually aggressive men are socially shunned. This society is reported to exist in Indonesia – the Minangkabau society. Sanday (2003) suggests that male sexual aggression is determined by the society in which the men live. South Africa is a particularly violent society and accordingly has a high incidence of rape (Robertson, 1998).

1.1.3 The construction of Gender

The construction of a masculine gender identity may be an important aspect of sexually aggressive behaviour amongst men. Hill and Fischer (2001) found that "masculine sex-typed men" (p. 39) are more inclined towards acquaintance rape than more "androgynous men" (p.39). Furthermore, in a self-report study, men who supported rape-myths (for example, that women fantasise about being raped) were more likely to rape than men who recognised them as being 'myths'. Abrams, Viki, Masser and Bohner (2003), proposed that the myths served as "psychological releasers or neutralizers" (p. 111) which condoned sexually aggressive behaviour in men. Although it is acknowledged in a study by Kalichman, Simbayi, Kaufman and Cain (2005) that people who subscribe to rape myths are in the minority, it is disconcerting that an equal proportion of men and women believed that women 'cause' rape by their actions or 'ask for it'.

According to O'Neil, Helms, Gable, David and Wrightsman, (1986, in Hill & Fischer, 2001), gender role conflict can be construed as having four dimensions which mediate the impact of masculinity on sexual violence. The dimensions described are:

(i) success, power and competition;
(ii) restrictive emotionality;
(iii) restrictive affectionate behaviour between men;
(iv) conflict between work and family relations.

Rando, Rogers and Brittan-Powell (1998 in Hill & Fischer, 2001) found that the third dimension, *restrictive affectionate behaviour between men*, was significantly related to the conflict involved in the construction of gender. South African society is generally accepted as being traditionally patriarchal (Greene, 1996; Morrell, 2006) in which men are typically raised to believe that asking for help and expressing feelings are inconsistent with dominant hegemonic masculinity (Deering & Gannon, 2005). This attitude could potentially increase the gender related conflict in South African men. Hill and Fischer (2001) found in their research that a man's sense of entitlement formed an important mediator between masculine identity and the (increased) likelihood of rape.

Kalichman et al.'s (2005) study in Cape Town on gender attitudes and sexual violence found that both men and women had similar views regarding social norms. Nearly all men and women stated that women should obey their husbands, two thirds of women believed that there were many jobs a man could do better than a woman, and one in three women agreed that women should not talk to men about sex. Their findings were consistent with other research in which South African women were stereotyped as being docile, especially in sexual relationships. This underlying belief was held equally by both men and women (Kalichman et al., 2005). The power differential within the construct of gender that appears to exist in many intimate South African relationships may impact on the violence that occurs within them.

Abrahams et al. (2004) suggest that much of the research on rape concentrates on the experience of women. This is problematic in view of the fact that rape is essentially male behaviour. In their research they found among the men who reported committing sexual

abuse that there was a strong perception that hitting a partner was justified. There was reduced support for gender equity. They also found a significant association between those boys who had witnessed or experienced physical abuse, becoming sexually violent as grown men (Abrahams et al., 2004). Their research offers a rare South African male perspective on risk factors of sexual violence against intimate partners.

1.1.4 Alcohol

Alcohol is implicated in approximately one to two thirds of rapes in America (Abbey, 1991 cited in Brecklin & Ullman, 2001). Brecklin and Ullman (2001) state that alcohol may affect rape in at least two ways; firstly, the risk of physical violence is increased after the perpetrator has used alcohol as his inhibitions to commit sexual aggression are reduced; and secondly, the victim's inhibitions are likely to be lowered once she has consumed alcohol, placing herself at higher risk of being raped. In a study in Baltimore, USA, it was found that among women that abused substances, 38% reported emotional abuse, 15% physical abuse and 4% sexual abuse (Lewis, 2004).

Research by anthropologists (in Abrahams et al., 2004) suggests a complex social-learning association between rape and alcohol. Locke and Mahalik (2004) found that a combination of alcohol use and the power construct of masculinity were important predictors of sexual aggression. Men who constructed masculinity in terms of power over women and consumed alcohol were significantly more likely to rape than those who did consume alcohol, but did not construe masculinity in terms of power over women (or homosexual men).

1.1.5 Intimate partner abuse

Intimate partner violence is a major aspect of rape that requires comment in this thesis. However, owing to limitations in scope, justice could not be done to this vast topic. It has been highlighted that rape of an intimate partner is often tolerated by both the female survivor and other family members (Jewkes & Wood, 2001). Jewkes et al. (2001) found that young men were intensely invested in their sexual relationships for numerous reasons, including lack of future prospects owing to poverty, unemployment, boredom and a sense of achievement in having a prized girlfriend amongst peers. This investment in the relationship

resulted in the young men trying to control their girlfriends and intolerance of any behaviour that could be construed as being insubordinate. It was found that beatings and other forms of abuse, including sexual violence, were common in this community. These signs of jealousy were interpreted not as rape, for example, but rather as explicit signs and expressions of love and commitment (Jewkes et al., 2001).

A brief further comment on recent research highlighting risk factors for abuse within intimate relationships may suffice on this vast topic. Roberts, Auinger and Klein (2006) found the highest risk of being physically abused was in an adolescent, heterosexual relationship. Increased time in the relationship was associated with more verbal abuse against both genders. It was concluded that the nature of the relationship in adolescents would influence the development of abuse later in the relationship (Roberts et al., 2006). Socio-demographic factors, such as age, partnership status and education, are known to influence the prevalence of sexual abuse against women. However, the interaction between these factors has not yet been fully investigated on a worldwide scale (WHO, 2006b).

The World Health Organization's (2006b) international study on domestic violence found that in many countries, of those women who experienced any violence by an intimate partner, between 30% and 56% were exposed to both physical and sexual violence. However, in other settings a substantial proportion of women experienced sexual violence only (WHO, 2006b). These figures give an indication of the overlap between physical and sexual violence.

1.2 SOCIAL STRUCTURE and RAPE

The present study assumes that rape is a societal process, influenced by culture. According to Sanday (2003), rape is not randomly distributed amongst societies, but is correlated with those societies' attitudes towards women. Parallel elements embedded within a society can be identified that may contribute to rape: one is the perception of masculinity and the other is the manner in which that perception is expressed within the culture. A study in South Africa identified two main predictors of sexual violence within intimate relationships. The strongest

variable was sexual refusal, and the second was a perceived challenge to male control in the relationship (Abrahams et al., 2004).

In pre-colonial Africa, the smooth-running of society depended on a man's ability to control women (Epstein, 2006). Women were the workers who kept the house, looked after children, farmed the land and gathered firewood and water. Men's responsibilities were largely to protect the homestead from invading tribes and to find new land when the fragile soil had eroded beyond sustainable farming (Epstein, 2006). In the last twenty years, particularly, numerous changes within South African society have contributed to the erosion of traditional constructions of gender and challenged male supremacy (WHO, 2006b). The history of Apartheid and the resulting changes may have contributed to the destabilising of the power status quo between the sexes, and sexual violence may have become its expression. While government addressed economic and political changes since 1994 after the dissolution of Apartheid, more subtle changes involving the construction of gender were also taking place (Morrell, 2001). In principle, these changes were perceived as being positive as they addressed numerous inequalities between men and women. However, there were also some negative aspects. Coupled with an emerging feminist stance, constructions of masculinity were being challenged and this may have threatened some men's sense of manhood and power. A common ground for the expression of the values which evolved from this deconstruction is still largely undeveloped and unresolved. Epstein (2006) suggests that women are becoming increasingly repelled by "traditional" (p. 36) men's attitudes and expectations, whilst most men are unwilling to adapt to certain changes for fear of being considered "henpecked" (p. 36) by their peers. Abrahams et al. (2004) argue that traditional men still prefer to have more than one partner. Wood and Jewkes (2001) found in their research amongst youths in Umtata that having more than one sexual partner was a status symbol and even a 'requirement' in order to establish respect amongst peers. It was generally acknowledged that except for the main girlfriend, love and romance had very little to do with other sexual relationships that were cultivated in that community. Beatings and other abuse were usually tolerated by members of the community as methods of establishing a sense of masculinity and maintaining the sexual hierarchy (Jewkes et al., 2001).

Conflicting attitudes between men and women towards marriage and relationships may impact on the incidence of sexual violence in South Africa.

Rape tends to be localised and specific in some communities in South Africa. Terminology has evolved that expresses the meanings and sometimes motivation behind rape. Examples of such terminology are "Jack-rolling" and "Streamlining". Jack-rolling is another term for gang rape that is used by the perpetrators to describe their activity as a gang (Vetten & Haffejee, 2005). Streamlining is a term that is used by a boyfriend to describe his intentions of 'sacrificing' his girlfriend to his friends and acquaintances for them to rape. The motivation is often a form of revenge or punishment for her behaviour (Jewkes, 2000b). Her behaviour would probably reflect an attitude of superiority and the boyfriend would consider himself 'successfully masculine' if he was able to subdue her through having her raped (Jewkes, 2000b). Although these types of rapes are not unique to the South African context, they are entrenched in male supremacy and a feeling of entitlement. The terminology is believed to be specific to South Africa.

1.3 THE SOUTH AFRICAN SITUATION

1.3.1 The Law

In South African law, which is currently undergoing amendment, rape is defined as "the unlawful sexual intercourse with a woman without her consent." (Human Rights Watch, 1997, p.15). This narrow definition of rape in South Africa was problematic in that it excluded many cases of rape. It only applied to women, and had to involve penetration of the vagina by the penis. It excluded rape of men, male children, oral rape and rape with the use of an object. Other forms of penetration, for example, using objects, would fall under alternative names like indecent assault and sodomy – carrying with them different (and often lesser) sentences (Human Rights Watch, 1997).

In November 2006, a broader and, importantly, gender-neutral amendment bill (Sexual Offences and Related Matters, B50B-2003) was passed by the Portfolio Committee on Justice and Constitutional Development. But it still has to be adopted by the National

Assembly. The Bill is in the process of being resubmitted (split into a section 75 and 76 Bill). It had the objective of redefining the crime of rape that is consistent with the liberal South African Constitution (Personal communication, D. Clark, Principal State Law Advisor, 29 January 2007). The definition of rape in the new law will provide that "any person who intentionally and unlawfully commits an act of sexual penetration with another person, or who intentionally and unlawfully compels, induces or causes another person to commit such an act, is guilty of the offence of rape" (Singh, 2004, p.131).

The acceptance in the National Assembly of this law will mark the way forward for fuller public awareness and health sector involvement in the prevention of sexual violence in South Africa.

1.3.2 Media in South Africa

The present work coincided with the press coverage of a high-profile rape case in South Africa. The former deputy president was accused of rape and the accusation has elicited opinions ranging from support for the victim to blame for her own alleged rape (Reuters, 2006). It became apparent that blame of the accuser for not physically defending herself was not limited to men, but numerous women attending the trial believed that it was the victim's responsibility to escape the rape situation. This case has challenged the notion of gender in our constitution and some have questioned for whom South Africa's democracy is being forged (Shelver in Reuters, 2006). It has been suggested in the media that since liberation from Apartheid, although the rights of women exist on paper, the issue of women being perceived as property still has not been resolved (Kadalie in Reuters, 2006).

1.3.3 Apartheid

The multifaceted effects of Apartheid in South Africa's history should not be underestimated with regard to its impact on mental health (Durrheim, 2003). Steve Biko described the experience of oppression as only one who lived through it can. He wrote: "The black man has become a shell, a shadow of a man, completely self defeated, drowning in his own misery, a slave, an ox bearing the yoke of oppression" (p. 29, in Durrheim, 2003). It is not suggested that Apartheid justifies rape in South Africa. However, a substantial body of

literature on the negative impact of Apartheid on the construct of masculinity (Morrell, 2001), particularly of Black men, offers support to the masculinity theory which suggests that men who experience gender identity conflict display increased aggression towards women and are more accepting of rape myths and sexual aggression (Rando et al., 1998 in Hill & Fischer, 2001).

1.3.4 The reporting of rape

Literature on rape specific to the South African context is limited and there are marked discrepancies amongst those statistics available from various sources (Rape Crisis, 2005). Reports from police stations suggest figures for 2002 of 115.3 per 100,000 for the whole of South Africa (SAPS, 2005) and 99.3 per 100,000 for KwaZulu-Natal. Those from community-based surveys record 2070 per 100,000 victims per year (Jewkes, 2002). These statistics highlight not only the discrepancies in reporting of rape, but also raise the question of why such discrepancies exist. It is suggested by Human Rights Watch (1997) that under-reporting is, in part, due to flaws in the medico-legal system "with problems of inaccessibility, prejudice and lack of training at all levels" (p. 3). A number of examples are cited in the literature of under-reporting of rape in South Africa.

(i) Marital rape is seriously under-reported as violence is reported to exist in 50-60% of marital relationships (Vogelman & Eagle, 1991, in Rape Crisis report, undated). There is support in the literature linking the feeling of entitlement to rape, particularly acquaintance rape (Funk, 1993; Hill & Fisher, 2001). It is suggested that rape is often a component of violence in marriages as a man may view sex with his wife as his entitlement. Within African society the tradition of 'lobola', where a man pays his future wife's family compensation for them losing her, may serve to reinforce the wife's position of belonging to the husband (Kadalie in Reuters, 2006; Mkhize, 2005, personal communication).

(ii) The high rate of violence towards women has received attention in the past decade. A study on the incidence of violence amongst South African women found that 41% of women never reported their experiences of violence (neither to

a friend nor the police). This substantiates the high rate of under-reporting of these incidents (Institute of Security Studies, 1999).

(iii) The under-reporting of rapes in rural areas is (reportedly) even higher than in urban areas (Vetten & Haffajee, 2005). Suggested reasons for this include: a lack of accessibility to police stations and hospitals in the rural areas. This results in many women avoiding the process of reporting to authorities.

In a survey on the reporting of rape, Jewkes et al. (2002) found that women were significantly less likely to report rape with increasing age. White women were more likely to report rape and, of the provinces, women in the Western Cape were most likely to report.

1.3.5 Children and sexual abuse

In addition to the legacy of Apartheid, the AIDS epidemic also impacts on the incidence of rape in South Africa through the dissolution of numerous social structures. Traditional family systems incorporating the extended family have been broken down owing to the inordinate number of HIV/AIDS related deaths. This has led to an increase in the number of orphaned children and child-headed households. In order to provide for siblings, the older ones may prostitute themselves (Deen, 2002). By the end of 2003, 15 million children (under the age of 15 years) in Sub-Saharan Africa will have been orphaned by AIDS. By 2010, it is predicted that 18 million African children (under 18 years old) will be orphaned by AIDS (Andrews, Skinner & Zuma, 2006).

Domestic abuse is known to be higher within stressed households, and many children run away from the abuse only to be forced into prostitution for survival (Petit, in Deen, 2002). According to South African Police Service reports in 2001, 41% of all reported rapes and attempted rapes were perpetrated against children under the age of 16 years (LoBaido, 2001). An international study (in Millner, 2002) reported that up to two thirds of all reported sexual assaults happened to girls 15 or younger, suggesting that the larger proportion of rape victims is children (Millner, 2002). According to Petersen, Bhana and McKay (2005), girls between the ages of 12-17 are at particular risk of being raped.

In a U.N. Human Rights Commission report on the rise in child rapes in South Africa, Petit (2002, in Deen, 2002) suggested some reasons for the phenomenon, which he believes is not new. He cited four contributory factors, namely: the high rate of violence, the culture of patriarchy, the objectifying of women and children, and alcohol abuse. Three of these four factors (tentatively excluding alcohol) are arguably inherent within the South African culture. Funk (1993) suggests that when rape becomes so common-place, there is a risk that it may be seen as normal.

1.4 THE LINK WITH HIV/AIDS

Gender based violence has received increased media coverage and attention in the health sectors over the recent years. Freeman (2004) reports from antenatal clinics that the prevalence of HIV/AIDS for age groups between 25-29 years old, is 33.5% in KwaZulu-Natal. Latest media reports suggest that the prevalence of HIV amongst women is currently higher than previously reported. The Medical Research Council estimated rates in KwaZulu-Natal to be between 38% and 50% (Carnie, 2006). These figures are higher than the estimated national figures that report 16.8% to 20.7% of the population (between ages of 15 and 49 years) are currently infected with HIV (UNAIDS, 2006). This indicates that there is possibly still a rise in the incidence of HIV. The possibility of contracting HIV adds another dimension to the already traumatic experience and significant mental health consequences of rape (Freeman, 2004). Therefore, considerable public debate has focussed on accessibility and administration of anti-retroviral drugs following rape (Dunkle, Jewkes, Brown, McIntyre, Gray & Harlow, 2003).

UNAIDS (2006) estimates that between 4,900,000 and 6,100,000 people are infected with HIV globally, more than half of which are women. In sub-Saharan Africa, young women between the ages of 15-24, account for 75% of HIV infections and are three times more likely to become infected than young men. This disproportionate ratio of infections of women has highlighted the problem of violence against women and the numerous risk factors that impact on women's health. These include, for example, inhibiting a woman from practising safe-sex through condom use, physical violence which increases exposure risk and

increased risk of partner violence when a woman discloses that she is HIV positive (Dunkle, Jewkes, et al., 2003). There is a general recognition that the vulnerability of girls and women to HIV infection is directly linked to gender-based violence. Their vulnerability is not limited to the biological arena, but can also be identified in the legal, social and economic domains (Wassenaar, Barsdorf & Richter, 2005). It appears to be grounded in an historically pervasive gender inequality (WHO, 2004).

A recent study in India (in Abrahams et al., 2004) reported that sexually violent men were more likely to have extramarital affairs, possibly because they have difficulty forming attachments and loving intimate relationships. It is therefore suggested that infidelity is more common in sexually aggressive men. A study at Harvard found that men with increased levels of testosterone were more likely to be unfaithful (Cromie, 2002). In other words, men with higher testosterone levels may be more unfaithful and sexually aggressive, thereby increasing their own risk of contracting HIV and spreading the disease to their other intimate partners (Abrahams et al., 2004).

Traditionally, rape may be construed as an attack in a deserted place by an (armed) stranger. This perception has since been disputed by a number of studies that show most rapes occur within domestic situations by an intimate partner, acquaintance or man in authority, for example, school teachers (Jewkes, Levin, Mbanganga et al., 2002). It is widely accepted that violence toward girls and women is a violation of basic human rights, but in recent decades sexual violence has become identified as a public health problem, possibly owing to its direct link with HIV (WHO, 2004). The numerous pathways linking rape and HIV/AIDS are discussed in some detail below.

1.4.1 Intimate Partner Violence

A forced sexual encounter increases the risk of contracting HIV from an HIV+ partner, because the degree of trauma, including vaginal lacerations and abrasions, increases the likelihood of exposure to blood and/or other secretions. Furthermore, there is evidence to suggest that the average age of sexually abused women is becoming younger. Young girls'

vaginal tracts are more easily torn during sexual intercourse, especially a forced encounter (WHO, 2004) thereby increasing the risk of contracting HIV.

1.4.2 Sexual Risk Taking Behaviour

There is a growing body of research that suggests the increased chance of contracting HIV and violence towards girls and women may be mediated by risk taking behaviour. This risky behaviour includes having multiple partners, engaging in transactional sex (sexual favours in exchange for money or goods) or having non-primary partners. Girls and women who were sexually abused during childhood and adolescence are more likely to take sexual risks and have earlier voluntary sexual initiation than those who were not abused (WHO, 2004). Given that adolescence is a particularly challenging period for establishing normative sexual behaviour, young girls and boys are placed in a vulnerable position regarding future sexual risk taking behaviour (Petersen, Bhana & McKay, 2005).

1.4.3 Inability to negotiate the use of condoms

South Africa has been identified as a patriarchal society, particularly hazardous for women in terms of physical abuse. This potential violence may limit the woman's ability to negotiate the use of condoms in their intimate relationships (Wingood & DiClemente, 1997). Difficulties that arise in relationships may include the issue of trust as women may be perceived as being mistrustful of partners when requesting the use of a condom. The request may be perceived by the partner as a challenge to his authority (Wingood & DiClemente, 1997). Women may be reliant on the wishes of their men to offer protection from HIV infection.

There are a number of known potential consequences of sexual violence, apart from contracting HIV or a sexually transmitted disease. There are psychosocial problems, which may include disruption of an important relationship, higher risk of multiple partners and possible sexual maladjustment in marriage (Chapko, Somse, Kimball, Hawkins & Massanga, 1999). Each of these aspects contributes to the ill-health of women and children. The vulnerability of such a large population cannot be ignored, and further research and intervention strategies are essential for the future well-being of society as a whole. Whereas

most research on sexual violence has been conducted using information concerning the woman's experience, rape is essentially male behaviour. So far the relevance of research conducted using male university students and military men has been unclear (Abrahams et al., 2004). Recent research has begun to include investigations into rape from a male perspective to identify characteristics that may be associated with a rapist, if indeed, such a profile exists.

1.5 PROFILING RAPISTS

In South Africa most statistical analyses of rape data originate from police records, which are limited mainly to the demographics of the victims and the perpetrators. In an attempt to identify risk factors and to be able to predict violent behaviour, research that focuses on the male perspective and personality has begun to emerge. Based on the work of international theorists (Richards, Washburn, Craig, Taheri & Yanisch, 2004), the Investigative Psychological Unit in Pretoria has researched the profile of rapists by analysing data surrounding rape in South Africa from a psychological perspective (Labuschagne, 2006). In an attempt to understand their *modus operandi* within South Africa, rapists were subdivided into categories, which are based on the international studies. These categories were generated using serial rape data and offenders were categorised as:

1. Power rapists (power reassurance and power assertive)
2. Anger rapists (anger retaliatory and anger excitation)
3. Opportunistic or Impulsive
4. Gang rapes
5. Infant rapists (Not discussed here as the focus of this study is on victims over the age of 12 years).

1.5.1 Power Rapists

According to Labuschagne (2006), the general characteristics of this type are that the perpetrators want to exercise power and control over their victim; they may force the victim by overpowering her, using threats or intimidation. They usually feel sexually and socially

inadequate. The motivation for rape is to make the rapist feel adequate as the act allows him to show virility, authority and dominance, which he is unable to feel in everyday life.

1.5.2 Anger Rapists

The main themes with this type of rapist, according to Labuschagne (2006), are aggression and the unnecessary and excessive use of violence. The rape is used to humiliate and degrade the victim.

1.5.3 Opportunistic Rapists

This type is likely to take advantage of an opportunity that presents itself and does not plan to rape beforehand; an example would be in a housebreaking. The motivation for this type is primarily sexual and is not fantasy-driven, but purely coincidental. The violence is minimal and only when deemed necessary. The victim is usually left tied up and given little attention. Drugs or alcohol may be used prior to the original crime.

1.5.4 Gang Rapist

This type of rapist is difficult to profile as an individual. However, it is possible to identify features of the group. There is usually a combination of circumstance and mob-(peer) pressure to participate. There will probably be a leader with a dominant personality who attacks first and expects the others to follow (Labuschagne, 2006).

These profiles appear to describe men with a tendency towards personality disorders. Following the evolutionist argument of rape being a "mating effort", Lalumiere, Harris, Quinsex and Rice (2005) conclude that antisocial behaviour is closely linked to a perpetrator's proclivity to rape, and that "sexually coercive men engage in high mating efforts" (p. 75). According to Freeman (2004), personality disorders are found in 30% to 40% of people with HIV/AIDS, which is three to four times higher than the average of people without the disease. The most common personality disorders in HIV infected men are reportedly anti-social and borderline personality disorder. According to Labuschagne (2006), Anger excitation (or sadistic) type rapists are more likely to have these types of personalities.

This being the case, it implies a higher risk of sexual violence amongst HIV positive men, thereby placing the rape survivors at particular risk of becoming HIV infected.

1.6 SUMMARY

Because of the limited South African literature on rape, Western theories of rape were applied to the South African context in an attempt to operationalise rape. South Africa's high incidence of rape is a societal phenomenon that may have its roots in a violent history, and could be reflected in our current culture. Since the termination of Apartheid, numerous changes have impacted on South Africa's multi-cultured society, which has resulted in social tension. These conflicts have been identified in numerous areas of emergent South African culture, particularly in the context of gender. It is acknowledged internationally that gender-based violence impacts negatively on the mental and physical health of girls and women. Furthermore, those children exposed to violence are at risk of perpetuating the cycle. It is impossible to identify one direct cause of rape, but it is believed that the broad area of gender inequality that filters through legal, economic and social domains may contribute to the high incidence of rape in South Africa.

The impact of sexual violence on the transmission of HIV/AIDS in Sub-Sahara Africa should not be underestimated. There is a large body of literature on rape in the context of HIV, and this knowledge has initiated changing perspectives over a relatively short period of time. It is anticipated that the pending new definition of rape in South Africa will offer a more comprehensive legal platform from which to prosecute offenders, compared with current legislation. This law, coupled with increased research, may assist with breaking the cycle of violence.

South Africa has two noteworthy reputations that apparently contradict each other: the first is for having one of the highest rates of rape in the world and the second is its progressive constitution. As long as these continue to co-exist, further research into the topics of rape and gender seems indicated.

The present study aims to describe the patterns of rape in a South African context by analysing rape data from one Crisis Centre. It is hoped that this data might contribute to the body of knowledge and inform future intervention programmes. It may also be used to motivate future funding for the centre in question and assist with setting up more facilities of this type.

CHAPTER 2: AIMS and METHODS

This research was initiated by the staff at the local Rape Crisis Centre (a National NGO) who requested an analysis of the rapes in their catchment area, in an attempt to understand the types of rape they deal with on a daily basis; to justify the services they provide and to motivate future funding and training activities. Owing to the dearth of local research, a primary aim of this exploratory research is to provide a platform for further investigations into rape within the South African context.

2.1 Objectives

In order to complement existing research in this area, the following objectives were developed:

(i) To describe the frequencies of the identified variables and any patterns in the data contained in the files at the Rape Crisis Centre.

(ii) To measure any associations that may exist between the variables extracted from the data in the files and to describe these intersections.

(iii) To identify and measure the strength of predictive relationships between selected variables.

The study was conducted by retrospective review of the counselling records at a KwaZulu-Natal Rape Crisis Centre, for the period between October 2002 (its inception) and December 2004. The records for 691 rape survivors were traced. The records gave statistics of the survivor and the survivor's narrative account of the offender and circumstances surrounding the rape. As with any discursive account there is a risk of arguable accuracy, for example, inaccurate recollections or fabrications. This may limit the data. However, this is a pilot study and certain limitations are anticipated.

2.2 Ethical Issues

Rape survivors are considered a vulnerable population owing to the trauma of their experience. In this study, the survivors were not interviewed themselves, but their counselling records were accessed at the Rape Crisis Centre and details extracted. There is some ethical debate regarding access to patients' records without their express consent. However, there are studies which examined patients' opinions about their records being used for research purposes (Kass,

Natowicz, Hull, Faden, Plantinga, Gostin et al., 2003). In a review of studies that have been conducted in this area, Kass et al. (2003) found that patients were in favour of their records being used for research purposes provided their personal identity was safeguarded by established procedures. Currently, many Research Ethics Committees (RECs) allow access to identifiable records, without the patient's consent, under the following conditions:

(i) "if the research is of minimal risk

(ii) if methods for protecting confidentiality are well outlined and

(iii) if identifiers are destroyed as soon as possible." (Kass et al., 2003, p.429).

All of the above requirements were met in this study.

It has been argued that confidentiality is violated once an individual's records become available for research purposes. However, Regidor (2004) suggests that this is a theoretical violation because the violation of privacy only constitutes harm when the person's identity is made available. He highlights the ethical conflict between the value of knowledge and the harm done in its paucity (Regidor, 2004). In this study, confidentiality was maintained by substituting numbers for names so that no survivor was identifiable in the research database.

According to Macklin (2002) it may be considered ethically 'wrong' to have access to records without informed consent, irrespective of whether harm is done or not and this debate is still largely unresolved. Regidor (2004) suggests that each of the four principles of autonomy, non-maleficence, beneficence and justice should be applied to the perceived consequences of the research, in order to identify moral justification for the research. In this study, the autonomy of the participants was respected through confidentiality; it is believed that there will be greater benefit to society than harm done to the participants, even without their informed consent. So after weighing the consequences, it was considered that the potential benefits to society outweighed the harm to the participants, thereby minimizing the 'wrong-ness' for the lack of consent.

Permission for the researcher to access the counselling records was obtained from three sources in accordance with requirements. They were: the Research Ethics Committee at the University

of KwaZulu-Natal, the hospital superintendent where the unit is housed and the Provincial Department of Health (letters available on request).

The individual case records contained demographic information, notes about the counselling process and details about the incident, and were separate from the survivor's medical records. The HIV status of the survivor was available in these records as the counselling process incorporated counselling for Post-exposure Prophylaxis (PEP) and subsequent monitoring of the compliance. To comply with confidentiality requirements, reporting on this information is in the form of descriptive aggregate statistics only.

2.3 The sample

The term 'Survivor' is preferred in this study, as one of the anticipated outcomes of the study is to inform therapeutic interventions. Within a therapeutic framework, the use of 'survivor' instead of 'victim' seemed more appropriate.

The language used in this thesis for racial categorization of the perpetrators requires some comment. Stemming from the Population and Registration Act, terminology used during the Apartheid era was considered offensive and unnecessary. The author aims to analyse the race of the perpetrators in a sympathetic and sensitive way. Accordingly, the terminology has been based on the Morrell (2001) text, for reasons given in the introduction, as the most appropriate description of a complex social construct. They are the following: White, African (when referring to people previously referred to as Bantu), Coloured, and Indian (when referring to people previously referred to as Asian). It is also noted that 'race' is at best a very crude indication of culture, and that culture is probably a more appropriate variable to use in a study of this nature. However the nature of the data set analysed in this study did not allow for any complex determination of the culture(s) of victims and perpetrators.

Rape survivors may report an attack at either a police station or directly at a hospital. The centre whose data are the focus of this study is the main rape clinic for the Pietermaritzburg area for adult survivors. It is based at a government hospital site, which normally services patients in the lower socio-economic group. The survivors would be brought to the crisis

centre for medical attention, counselling and to complete the reporting process. The crisis centre notes are completed by either the attending doctor or nurse, who record the survivor's account of the incident. Following strict confidentiality guidelines and ethical clearance, these notes were accessed for this research. The information was entered onto a computer, using variables created in SPSS (Release 11.5.1, Nov 2002) and later updated using a more recent version of SPSS (Release 13.0, November 2004).

The nature of the cases reporting to the Crisis Centre requires some consideration. Following an attack, survivors are able to report to the crisis centre for supportive counselling, medical treatment and anti-retroviral treatment (ARV) for HIV prophylaxis. In accordance with National Antiretroviral Treatment Guidelines (First edition, 2004), the survivor's HIV status is determined initially. Those who are already HIV positive are offered ongoing counselling and medical treatment, but may not be provided with free Post-exposure Prophylaxis treatment (PEP policy attached, appendix ii). There has been ongoing political debate surrounding this policy and some uncertainty with regards updated guidelines. However, the clinic that forms the focus of this research is to date guided by the National Antiretroviral Treatment Guidelines (First edition, 2004) mentioned previously. It is possible that this policy may prevent some HIV-positive rape survivors from reporting their rape. Furthermore, some women may have had unprotected consensual sex, and thus fear having contracting HIV. Following the government's guidelines, they may have felt obliged to report the incident as a rape in order to obtain free anti-retroviral treatment. There was no evidence in this research to suggest that this was the case, however it should be borne in mind.

There were 810 survivors who presented to the clinic between the period October 2002 to December 2004. Not all of the records could be used and the final sample consisted of 691 survivor records. When it became apparent that a record could not be used (see criteria below), that file was re-filed and no note was made of it. In hindsight, an analysis of the number and reasons for rejection may have provided useful information about the method of data collection as this is the first attempt at an analysis of these records. A number of recommendations for future methodology have been generated from this exercise. In total 119 records (14.7%) were excluded. These exclusion criteria are discussed fully in the following section.

2.4 The data

There was no theoretical model or previous research to guide the choice of variables in this research. They were decided upon following discussion with and guidance from the staff at the crisis centre who have extensive experience in this area.

Nineteen variables were identified from the information contained in the files as being exhaustive and mutually exclusive. Information was not available for every variable in every case and these cells were left blank or given the category of "unknown" if stated by the survivor.

The variables were listed as follows:

1. Case no.
2. **Date of birth**
3. Age
4. Gender (survivor)
5. **Date of incident**
6. Day of the week
7. Time of day
8. Race of perpetrator – not stated, African, White, Indian, Coloured
9. Number of perpetrators[1]
10. **Relationship to perpetrator** – stranger, acquaintance, friend, relative, intimate partner, husband
11. Drugs perpetrator – none/unknown, alcohol, dagga, other
12. Violence type – not stated, gun, knife, weapon, beating, coercion/threat, overpowering, drugged
13. Condom use – yes, no, unknown
14. Crime associated – housebreaking, murder, personal theft, hijacking, abduction, other

[1] The international standard of considering anything more than one perpetrator as a gang rape, is acknowledged. However, for this study the number of perpetrators was separated into the categories of one, two and three or more in accordance with the Rape Crisis Centre's files. They considered this categorization useful for their purposes.

15. Location of rape – taxi rank, public bar, public space, other house, survivor's house, deserted urban, deserted rural
16. No. of incidents
17. **Date reported**
18. Time delay before reporting
19. Public holiday – yes, no

Key variables are highlighted in bold in the above list and if information was not available for these key variables, the files were not used. The files were also not considered adequate if 15 of the 19 variables were missing from the case record. The clinic required the information of whether a condom was used or not, so this information was available in every case. There was apparently no structured questionnaire or format for the intake interview, hence not all questions were always asked by the attending medical personnel. It is suggested that such a structured protocol would have improved the validity of this research.

2.5 Data Cleaning

2.5.1 With regard to the time of day, the times in the data were coded in the following way. Half hours were recorded as such. Any time that was on the quarter-hour was rounded to the closest whole hour. For example: 08:15 would become 08:00 and 08:45 would become 09:00.

2.5.2 With regard to violence used during the rape, sometimes a survivor reported two types of violence. The survivor's narrative was used to interpret which type they considered to be more intimidating; this was the violence that was reported in the data. For example, if a survivor was threatened with a gun and then hit with a hand, the violence type was taken to be 'gun'. However, if the survivor was threatened with a gun, but beaten so badly that the gun was later of little consequence, the violence was reported as being 'beating'. This method of coding data would benefit from a reliability analysis in a future study.

2.5.3 Public holidays were reported as "Yes" if they occurred within a day of the actual public holiday. This was because many of the rapes occurred at night,

either in the early hours before or after a public holiday and it was felt that the proximity of the public holiday was noteworthy in these cases.

2.5.4 Male survivors were excluded from this study because of the relatively low number in the sample (n=16, 2.3%). The data may have become compromised by skewed gender data. The topic of male survivors is an area of investigation worthy of a more complete study than was possible here.

The data were analysed primarily using SPSS and Excel (Microsoft 2000, cc 1985 – 1999). Frequencies and descriptive statistics were run, percentages were calculated and means compared. The data were in the form of counts so chi-square associations were considered to be best for the purpose of identifying patterns in the data. Multiple regression models were also used in an attempt to predict dependent variables from other information available.

2.6 Reporting

All variables were analysed for frequencies and every combination of variables was examined. Owing to the limitations in the size of this study, not all the results were reported. Most of those variables which did not identify significant patterns or results, were excluded. However, some non-significant results are reported if they were considered to have important implications for the study, particularly in relation to significant results. The reported variables are outlined in the table (i) below.

Table i. List of Variables analysed using frequencies, chi-square and multiple regression tests

Single Variables	Multiple Variables
Survivor age	Characteristics of Survivor :
Day of the Week	Age x day of the week
Race of Perpetrator	Age x relationship to perpetrator
Time lapse in reporting	Age x violence type
Time of Day	Age x time lapse
Relationship to Perpetrator	Age x location
Violence type	Age x race of perpetrator
Associated crime	Age x crime associated
Location of rape	HIV status
Number of Perpetrators	Characteristics of Perpetrator:
Condom Use	No. perpetrators x relationship
Number of incidents	No. perpetrators x race
	No. perpetrators x day of week

Time lapse x relationship
Race x condom use
Perpetrator drugs x violence type
Characteristics of the Rape:
Location x relationship
Day of week x no. perpetrators
Public holidays
No. incidents x condom use
Location x condom use

The results are reported following a format used in Collings and Wiles' (2004) article on child rape in KwaZulu-Natal, for uniformity and continuity of information. Three basic headings were used: The Victim (termed Survivor in this study), The Offender and The Rape and these are replicated in this report. Frequencies for single variables are described first and then multiple variables are analysed by frequency, chi-square and multiple regression.

There are numerous variables each requiring comment and discussion. In order to facilitate clarity of reporting and to avoid repetition, the 'Results' and 'Discussion' chapters have been integrated into one chapter, called 'Findings and Discussion'.

2.7 Assumptions and Difficulties

In this study the two statistical assumptions for Chi-square, namely, that the variables must be independent and exhaustive, have been met.

A reliability analysis was not conducted, although empirically desirable, as this would have required a second rater having access to the records. This would have violated the confidentiality of the study as permission was only granted for one researcher to collect the data. However, in future studies of this kind, Cohen's Kappa is recommended for the purpose of reliability analysis in Chi-square contingency tables (Howell, 2002). This reliability check calculates the percent agreement between two raters, after correcting for chance and provides an assessment of the accuracy of the data collection record.

Owing to the large number of significance tests that were run using this data, there was an increased risk of family-wise error occurring (the probability of rejecting the null hypothesis

when it is true, from a set of comparisons (Durrheim 2002)). Furthermore, the requirement in the Chi-square analysis for significant cells to have a count of 5 or more was not always met. Therefore, some of the significant findings which were reported as such could be considered spurious. The importance of significance was considered secondary to the benefit of identifying patterns that might emerge in the data. Therefore, significance reported in this study should be read with caution.

The choice of statistical test is fundamental to the integrity of the research, and there are various other methods that could have been used for analysing this type of data. However, owing to constraints, such as time, limited scope of this work and finances, the analysis was limited to a basic analysis. In future studies of this type, it may be prudent to consider tests such as boot-strapping, multinomial analysis and logistic regressions for observing the interplay between more than two variables. If funding could be secured, the budget could include costing for a second rater, as well as enhanced statistical re-analysis. It is nonetheless hoped that the data presented in this pilot study show some robust patterns that can inform further studies in the area and may inform future rape prevention efforts.

CHAPTER 3 : FINDINGS and DISCUSSION

This chapter will combine results and discussion. Owing to the number of variables requiring comment, in order to avoid repetition of the findings, the discussion follows immediately after reporting the results in the sub-headings. Not every variable has been discussed owing to the dearth of previous research on this topic. However, most of the relevant findings have been commented on.

In the data presented below, the following statistical tests were used: *Frequencies* to describe the data and identify patterns. The records of 691 female rape survivors were reviewed. The data were expressed as percentages as well as counts and results were used to highlight areas requiring further investigation. *Chi-square* tests were used primarily to explore the associations between variables. The interpretation of significance was a challenge owing to the high probability of committing a family-wise error, so these results should be interpreted with caution. *Multiple regression* was employed to fit a 'model' to the data and to explore predictive relationships that had been identified in the chi-square tests. For the purposes of converting categorical data in the form of counts into numbers for the multiple regression analysis, the method of 'dummy coding' was used. For mathematical reasons it is necessary to leave one variable out of the set as the comparison variable (Kerlinger, 1986). That variable is referred to hereafter as the 'contrast' and is identified as such in each multiple regression test. The significance level was set at 95%, unless otherwise stated.

The data in this chapter are separated into single variable analysis and multiple variable analysis in which two variables were investigated in order to identify patterns in the data. In the multiple variable analysis, the data are presented in three sections, namely, characteristics of the survivors, characteristics of the perpetrators and characteristics of the rape situation. Each section is divided into sub-sections and discussed using relevant graphs and tables. A summary is given at the end of each section and a conclusion drawn at the end of this chapter.

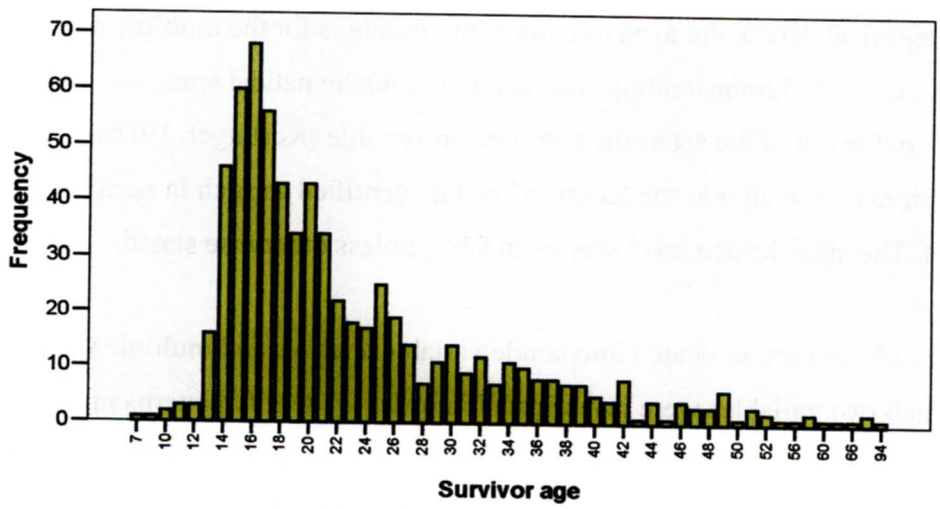
3.1 SINGLE VARIABLE ANALYSIS

3.1.1 Survivor age

This variable was limited by the health care policy in the clinic. Young children up to the age of 12 are normally redirected to another specialist crisis centre, however some exceptions were seen in this clinic. These frequencies therefore do not represent children younger than 12 years who have been raped. Reasons for these exceptions were not stated in the clinic records.

The mean age of the survivors was 23.24 years (sd=10), with a range of 7 to 94 years. The most frequent survivor age was 16 years (n = 68), and the second most common age was 17 years (n = 60). Children 12 years or younger represented 2.3% (n = 10) of the sample but this figure is not representative, as discussed. Graph 1 shows the normative data was positively skewed.

Graph 1. Survivor age in frequencies



The survivors' ages were categorized to facilitate analysis of the data. Six age categories were created and frequencies listed in Table 1. These categorized data were used throughout the analysis for 'age of survivor'. The frequency details are attached in the appendix. The

largest age group was the 16 - 25 years old group and the frequency tapered off as the survivors' age increased (Table 1). The categorized data are presented in Graph 2.

Graph 2. Survivor age groups in counts

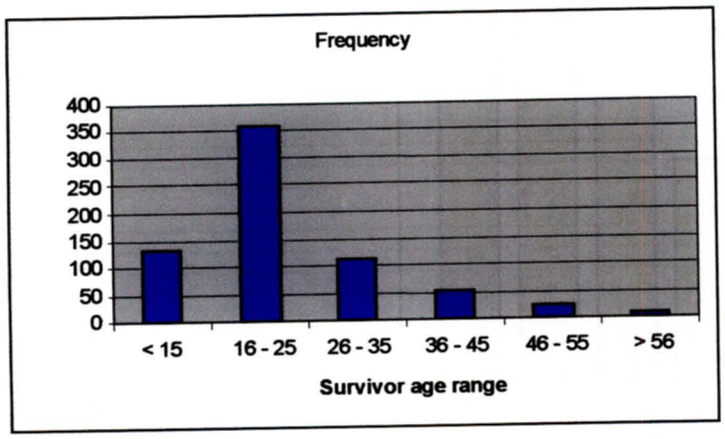


Table 1 Frequencies of collapsed ages

Grouped age in years	Frequency	Percentage
< 15	132	19.1
16 - 25	360	52.1
26 - 35	114	16.5
36 - 45	53	7.7
46 - 55	23	3.3
> 56	9	1.3
	691	**100**

3.1.2 Day of the Week

This variable reflects the number of rapes that took place on each day of the week (Graph 3). This information was usually not given by the survivors but was obtained from previous year calendars. An exception was noted with survivors who were abducted in that they were more likely to use days of the week to describe when the incident took place rather than actual dates. For example, "I was abducted last Saturday and only released on the following Wednesday". For cases in which a woman was abducted and raped more than once, the 'day of the week' was taken as the day of the first rape. Table 2 presents the frequencies in percentages and observed and expected counts.

Graph 3. Day of the Week

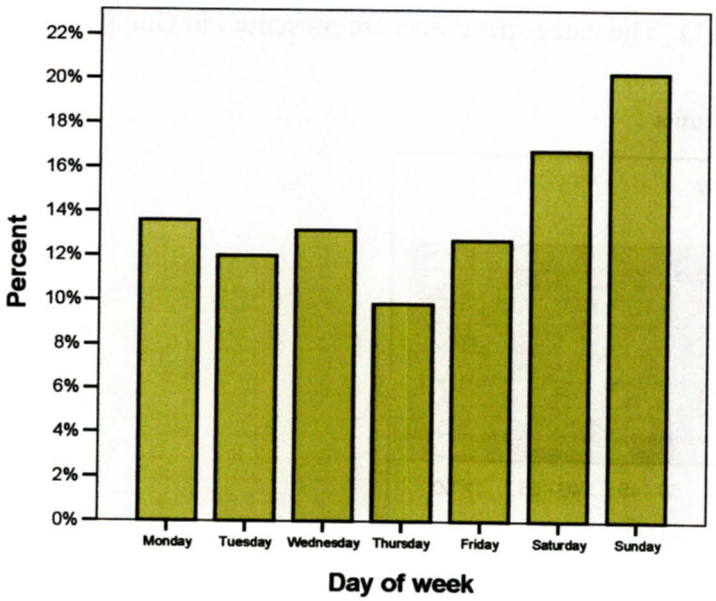


Table 2. Day of week in rank order of frequency showing observed and expected counts

		Frequency	Percent	Observed	Expected
Valid	Unknown	11	1.4		
	Sunday	140	20.3	140	97
	Saturday	116	16.8	116	97
	Monday	94	13.6	94	97
	Wednesday	91	13.2	91	97
	Friday	88	12.7	88	97
	Tuesday	83	12.0	83	97
	Thursday	68	9.8	68	97
	Total	**691**	**100.0**	**680**	

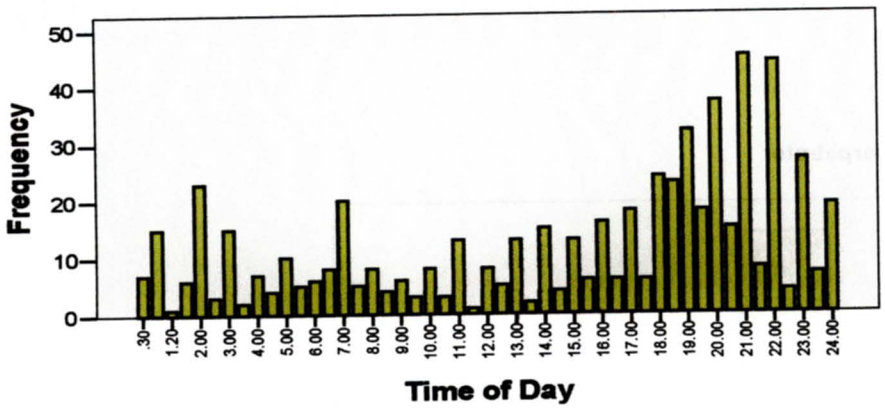
From the frequencies of the day of the week presented in Table 2, Sunday was identified as being the day of the week with the most number of rapes. Saturday was the second most common day. The expected number of rapes per day was 97 (= 680 /7), however this was not observed in the data. The expected rate of rapes over the weekend was 28.5% (2/7 days of the week), but they actually represented 37% of total rapes combined, thereby identifying weekend days as high-risk. There were slightly more rapes reported on Mondays and Wednesdays than on Fridays which was unexpected, given the association of Friday being the start of the weekend. There may be more likelihood of alcohol and mingling with

friends on a Friday than a Monday, which represents the start of the workweek. The Chi-square tests did not identify any significant association between rape and days of the week.

3.1.3 Time of day

This variable was a record of the time when the rape occurred. There was no difficulty with this category as survivors were usually quite clear about the timing of the incident.

Graph 4. Time of day in frequencies



From Graph 4 it is possible to identify a clear general trend showing that the highest risk period for being raped was in the evenings from 18:00, peaking at 21:00, until the early hours of about 03:00 in the morning. The risk then reduced gradually until the early evening, except for 07:00, which was again a high-risk period.

Discussion

It was hypothesized that this temporal pattern may have been linked to location of the rape. This hypothesis was supported in Vetten et al.'s (2005) research in which it was found that the largest proportion of women (41%) who were gang-raped, were walking at the time. Vetten et al. (2005) found 21% of women raped by a single perpetrator were raped whilst walking.

It was found that survivors were more vulnerable to attack during the early morning (07:00) possibly as they travelled or walked to work. Chi-square tests were run using the variables of location of rape and time of day. The association was not found to be significant in this study and was therefore not reported under its own sub-heading.

3.1.4 Race of perpetrator

With reference to the note on terminology in the previous chapter (chapter 2, p.22), the race of the perpetrator was divided into four race groups: African, White, Indian, Coloured and a 5th, not stated. The frequencies are presented in Graph 5 and Table 3. South African national and provincial statistics were compared to the sample frequencies, in order to identify group percentages.

Graph 5. Race of perpetrator

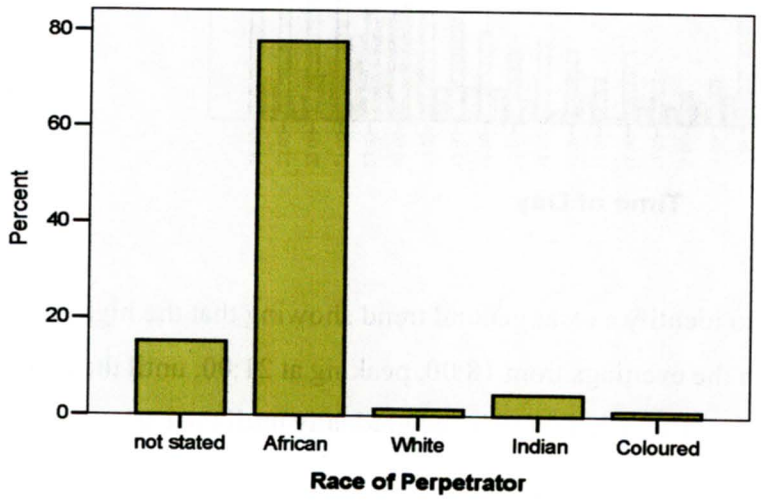


Table 3. Race of perpetrator

		Frequency	Percent
Valid	not stated	105	15.2
	African	537	77.7
	White	10	1.4
	Indian	31	4.5
	Coloured	8	1.2
	Total	**691**	**100.0**

Table 4. Males by Race in South Africa and KwaZulu-Natal

	South Africa	% total pop	KwaZulu-Natal	% KZN total
African	37 205 700	79.4	3 720 802	84.39
White	4 379 800	9.3	235 339	5.34
Indian/Asian	1 153 900	2.5	385 801	8.75
Coloured	4 148 800	8.8	67 150	1.52
TOTAL	**46 888 200**	100	**4 409 092**	100

Table 5. Race of perpetrator in KZN population & sample in observed and expected counts

	% of KZN total	% of sample	Observed n per race	Expected n per race	% Over or Under-represented
African	84.39	91.6	537	494.58	+7.21%
White	5.34	1.7	10	31.29	-3.64%
Indian/Asian	8.75	5.3	31	51.275	-3.45%
Coloured	1.52	1.4	8	8.907	-0.12%
Not stated			105		
	100%	100%	691	586	

From the frequency tables (Tables 4 & 5, STATSA, 2005), it is noted that 105 perpetrators (15.2% of the sample) were not categorised by race. The remaining perpetrators in this sample are separated as follows: African males make up 84.4% of the KZN population and 91.6% of the sample; they were over-represented in this sample by 7.2%. White males make up 5.3% of the KZN population and 1.7% of the sample; they were under-represented by 3.64% in this sample. Indian males make up 8.7% of the KZN population and 5.3% of the sample; they were under-represented by 3.45%. Coloured males make up 1.5% of the total KZN population and 1.4% of the sample; this was an almost proportional representation of 0.12%. By calculating expected frequencies, it was found ($df = 3$, $p<.0001$) that White and Indian perpetrators were significantly under-represented in the sample (3.6% and 3.4% respectively). African perpetrators were over-represented in this sample (7.2%).

Discussion

Bearing in mind the complexity of the terminology of race expressed in chapter 2 of this thesis, the race distribution of perpetrators could be considered in a number of ways. One

suggestion is that the location of the clinic skewed the data by race owing to the population served in that location; this would require further investigation. The race of the survivor was not recorded in the file, so there was, unfortunately, no way to identify if rapes were inter-racial or not. This information could possibly have assisted with accounting for the 15,2% representing no known perpetrator race and possibly also provide a baseline from which to generate further research in this area. A standardised questionnaire used by all attending medical personnel could improve data collection for analysis in the future.

3.1.5 Relationship to perpetrator

This variable was coded to represent the proximity of the relationship between survivor and perpetrator. The more distal the social relationship between the perpetrator and survivor, the lower the code number, i.e., no relationship (stranger) = 1 and close relationship (husband) = 6. A simple hypothesis was that the relationship distance would be associated with several other variables, possibly proving to be a protective factor in some cases. For example, the closer the social relationship, the less frequently rapes would occur within those relationships. The term 'intimate partner' was used to include the relationships of current or ex-boyfriend or ex-husband. Current husbands were termed 'husband' and had their own category as it was felt that the dynamics between married husband and wife would possibly represent a more complex relationship than other intimate relationships, involving as they do financial issues and relationships with extended family members. The frequencies are presented in Graph 6 and discussed below.

Graph 6. Relationship to perpetrator

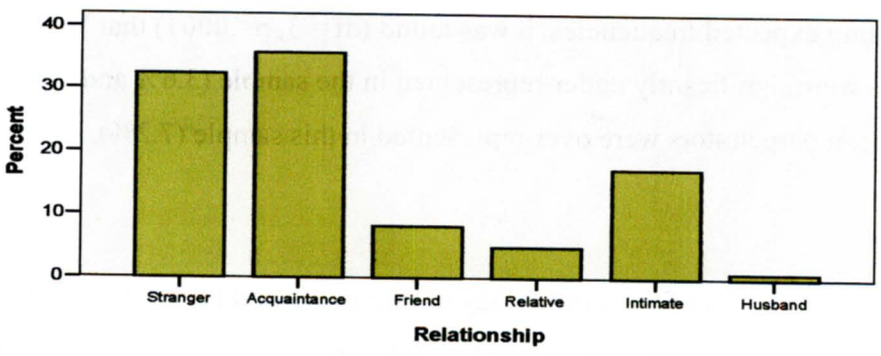
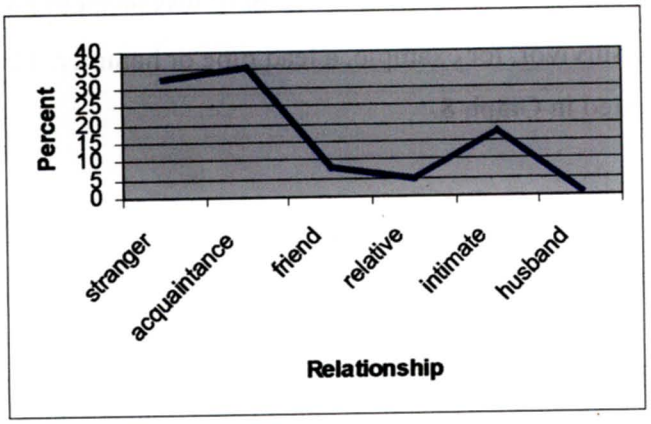


Table 6. Relationship to perpetrator in rank order

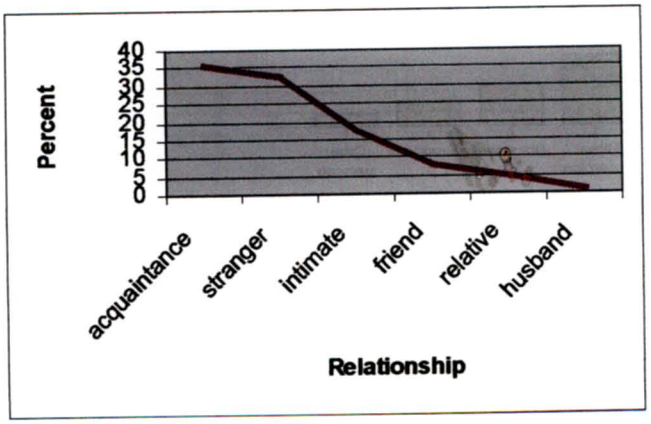
		Frequency	Percent
Valid	Acquaintance	247	35.7
	Stranger	224	32.4
	Intimate	120	17.4
	Friend	57	8.2
	Relative	34	4.9
	Husband	6	.9
	Unknown	3	.4
	Total	**691**	**100.0**

As is evident from Table 6, the most frequent relationship with a rapist was an acquaintance. The second most common was that of a stranger. Intimate partners (boyfriends) accounted for 17% of rapes and husbands accounted for 1%.

Graph 7 a) Hypothesized order of Relationship proximity in terms of frequency



Graph 7 b) Actual ranked order of Relationship proximity in terms of frequency



Graph 7 a) and b) represent two interpretations of the relationship proximity to the perpetrator. Graph 7 a) presents the hypothesized order of the relationships in terms of proximity and Graph b) presents the actual measured order of the relationships.

No association was found between the proximity of the relationship and the frequency of rape. In other words, there was no support for the simple hypothesis that proximity of relationship would be a protective factor for this variable. Because domestic violence is probably under-reported, (Dunkle et al., 2003) it is likely that the figure reported for 'husbands' was an under-representation of the actual number of rapes that occurred within domestic situations.

3.1.6 Violence type

The violence that was used during the rape was recorded according to the survivors' narrative. In addition to the self-explanatory categories, 'other weapon' was taken to be any type of instrument that could harm the survivor, for example, a lead pipe or hammer. The frequencies of violence type are presented in Graph 8.

Graph 8. Violence type used during rape

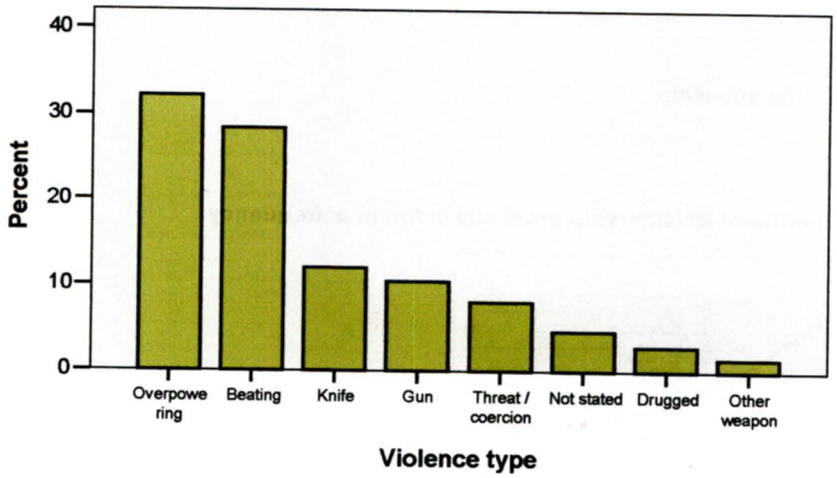


Table 7. Violence type in rank order

		Frequency	Percent
Valid	overpowering	222	32.1
	beating	196	28.4
	knife	83	12.0
	gun	72	10.4
	threat / coercion	56	8.1
	not stated	32	4.6
	drugged	20	2.9
	Other weapon	10	1.4
	Total	**691**	**100.0**

Figures in Table 7 describe 'overpowering' as the most frequent method of violence associated with rape and 'beating' was the second most common. The use of knives and guns followed and were more common than verbal threats or coercion. 'Other weapons' were the least common form of violence used. In the case of 'drugged' it is difficult to ascertain whether the survivor was (violently) forced to take the drug or whether they (unwittingly?) consumed the substance, and were later 'taken advantage of' in a non-violent way. This could possibly be further investigated in a qualitative study. The only two substances mentioned in the survivors' reports as drugs were alcohol and dagga. There was no mention of the 'date-rape drug' Rohipnol.

3.1.7 Associated crime

There were occasions when another crime was committed at the time of the rape and this was recorded and analysed. The frequencies are presented in Graph 9. According to the narrative of the survivor, it was most common for no other crime to be associated with the rape. This question was not specifically asked during the interview with the survivor, so if no crime was recorded in the file, this may have been an omission rather than there being no associated crime.

Graph 9. Associated crime

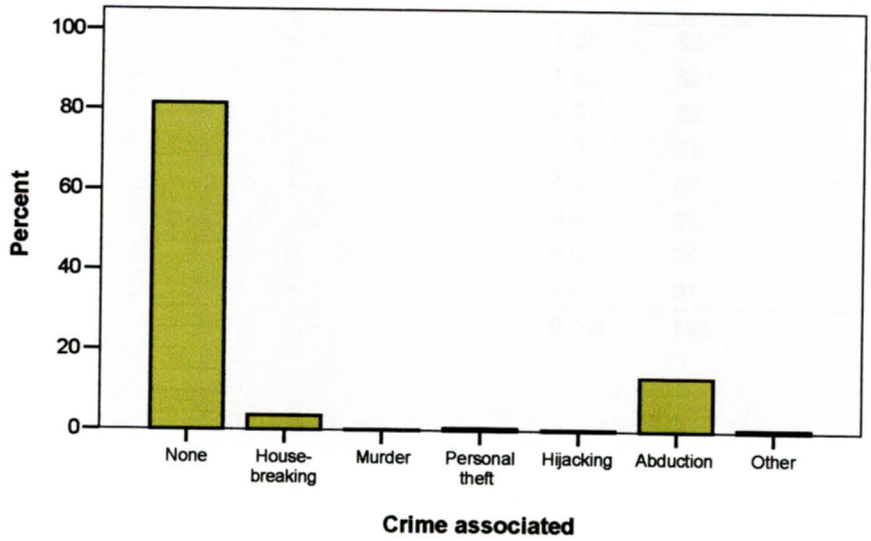


Table 8. Crime associated in rank order of frequency

		Frequency	Percent
Valid	None	563	81.5
	Abduction	92	13.3
	Housebreaking	25	3.6
	Personal theft	4	.6
	Other	4	.6
	Hijacking	2	.3
	Murder	1	.1
	Total	**691**	**100.0**

Of the reported crimes, abduction of the survivor was the most common. The abduction could last any time from one hour upwards and in this sample, the longest period a survivor was reportedly held for was four weeks. Survivors reported either escaping from captors or being released. Housebreaking was associated with 3.6% of rapes. The temporal link was, however, not established, so it was not possible to state whether the housebreaking or the rape was the primary motivation for the attack. This was also true for personal theft. There was one murder. In this case, the rape survivor's friend was murdered after they were both raped, and the survivor managed to escape.

3.1.8 Location

The location was recorded as being the place where the rape took place. These locations are presented in Graph 10. In the cases of abduction, the survivors may have been raped in a different location from where they were abducted.

Another person's house, other than the survivor's, was the most common location for a rape. The survivor's house and deserted rural locations were, equally, the second most common locations for rape. 'Deserted rural' location was a more dangerous location for survivors than a 'deserted urban' location. The least common location (10% of rapes) was general public space, which included the categories of public bar and taxi rank.

Graph 10. Location of the rape

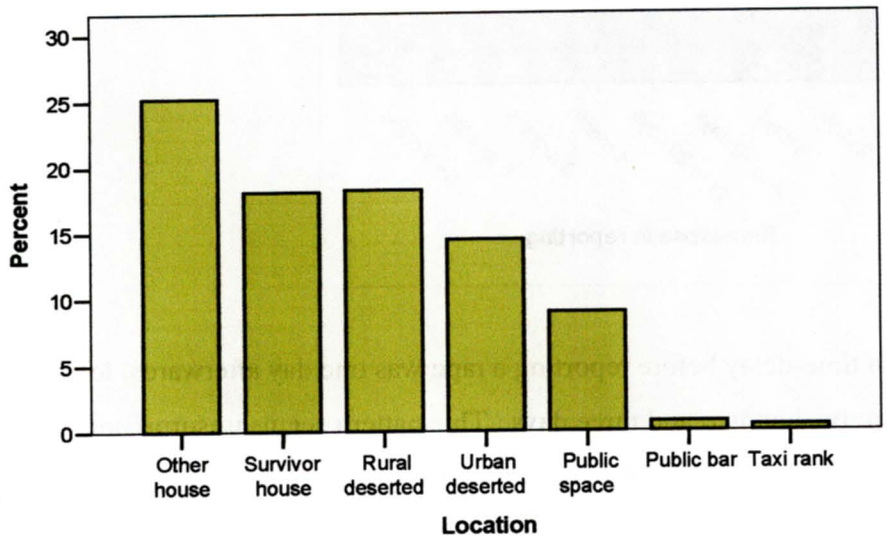


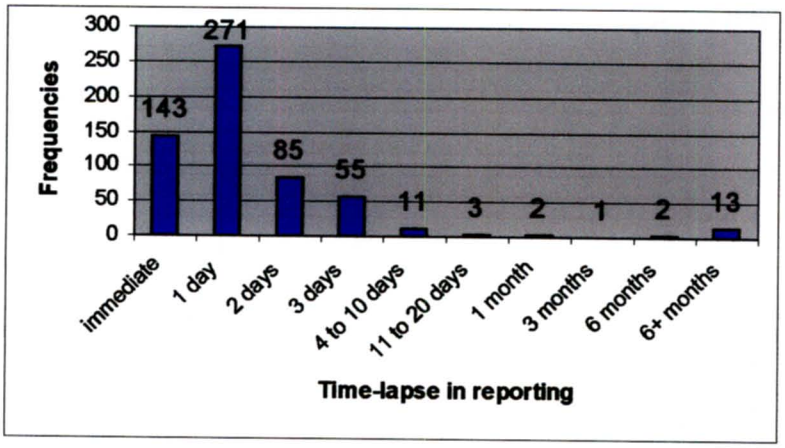
Table 9. Location in rank order of frequency

		Frequency	Percent
Valid	Other house	174	25.2
	Survivor house	125	18.1
	Rural deserted	125	18.1
	Urban deserted	100	14.5
	Not stated	96	13.9
	Public space	62	9.0
	Public bar	5	.7
	Taxi rank	3	.4
	Total	**691**	**100.0**

3.1.9 Time-lapse in reporting

This variable was measured as the number of days between the rape and when the survivor reported the incident to authorities. If they reported on the same day as the incident, it was considered to be immediate and the next day was counted as being one day, and so on for the other time intervals. In order to simplify the analysis, the days were collapsed into categories outlined in Graph 11, reported in frequency counts.

Graph 11. Frequencies of Time-lapse intervals between rape and reporting



The most common time-delay before reporting a rape was one day afterwards, followed by reporting immediately, then two and three days. This pattern seems unsurprising. However, the next most common time-delay before reporting was longer than six months and the least common time-delay was three months.

Discussion

There are numerous variables associated with length of time from rape to disclosure (Collings et al., 2005). These are discussed in section 3.2.4 of this chapter. Briefly, they included the age of the survivor, nature of relationship with perpetrator, offender's age and frequency of abuse. Only 12% of rapes that are disclosed are normally reported to authorities (Collings et al., 2005). Unfortunately it was not possible to measure this aspect from the data in this study as only reported attacks were included.

3.1.10 Number of perpetrators

This variable related to whether it was a 'gang rape' or not. For this study, gang rape was considered to be three or more perpetrators (n = 65, 9.4% of total rapes). The perpetrators in this variable all actually raped the survivor and although there may have been additional bystanders, this was a record of the number of different men who raped the survivor. The data are presented in Graph 12.

Graph 12. Number of perpetrators

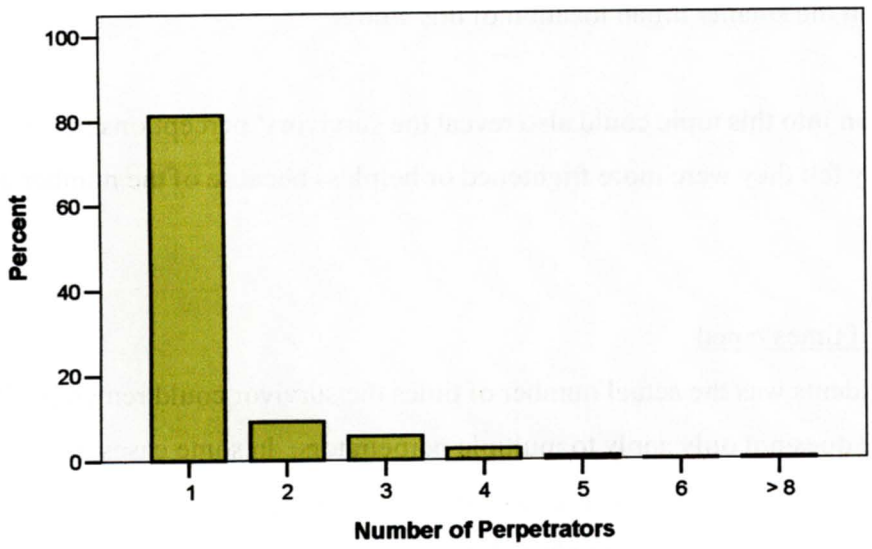


Table 10. No. of perpetrators

		Frequency	Percent
Valid	1	562	81.3
	2	63	9.1
	3	40	5.8
	4	17	2.5
	5	5	.7
	> 8	2	.3
	6	1	.1
	Total	**691**	**100.0**

Table 10 shows the frequencies and percentages of the number of perpetrators per incident. As expected the majority of rapes (81%), were perpetrated by a single rapist, 9.1% were perpetrated by two men and 9.4% were gang rapes with three or more rapists.

Discussion

It was suspected that there was an increase in the number of gang rapes in this clinic since its inception in 2002. This is the first sample, generated from that date to 2004, so will not provide a comparison trend over the initial period. However, this data may serve as a baseline for the measurement and comparison of future trends. The number of multiple-perpetrator rapes in this study (18.5%) is slightly lower than the 27.4% found in Vetten et al.'s (2005) study. Speculation suggests that the large urban location of the Vetten et al. (2005) study could account for the difference. There may be more gang activity in a large urban setting than in the smaller urban location of this study.

Further investigation into this topic could also reveal the survivors' perceptions of gang rape. For example, if they felt they were more frightened or helpless because of the number of perpetrators.

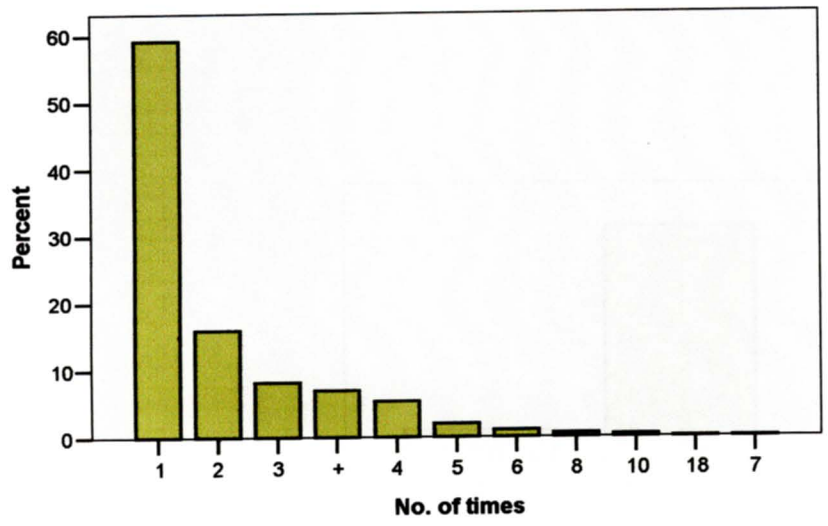
3.1.11 Number of times raped

The number of incidents was the actual number of times the survivor could remember being raped and therefore does not only apply to multiple perpetrators. In some cases, the survivors were raped more than once by the same perpetrator before they were released or escaped. So, within this category, the number of incidents has not been separated out from the number of perpetrators per incident.

Table 11. No. of times survivor raped per situation, in rank order of frequency

		Frequency	Percent
Valid	1	409	59.2
	2	110	16.0
	3	57	8.2
	Numerous	48	7.0
	4	37	5.4
	5	14	2.0
	6	7	1.0
	8	4	.6
	10	3	.4
	18	1	.1
	7	1	.1
	Total	**691**	**100.0**

Graph 13. Number of rapes per situation



When a survivor could not remember the exact number of times she was raped, but knew it was more than twice, the term 'numerous' was used (shown as '+' sign in Graph 13). One or more perpetrators raped survivors more than once in 40.8% of the incidents.

Discussion

The number of rapes per situation appears to be high and upon speculation, this could be because the survivors had difficulty escaping. This could have been for a number of reasons; namely, because of the location, survivor's injury or perhaps type of violence used. There is also the possibility that survivors did not feel able to escape because of Seligman's phenomenon of 'learned helplessness' (1989, in Coon, 2001) in which they felt it would not be worth trying to escape as they were sure to fail anyway. This is an area of particular psychological interest and further enquiry could attempt to establish various reasons for the repeated rapes.

3.1.12 Condom use

This variable was always reported during the interview as it pertained to the risk of the survivor contracting HIV or becoming pregnant. It centred on their medical treatment, which

is considered to be the highest priority by the clinic staff upon presentation by the survivor. The frequencies are presented in Graph 14.

Graph 14. Condom use

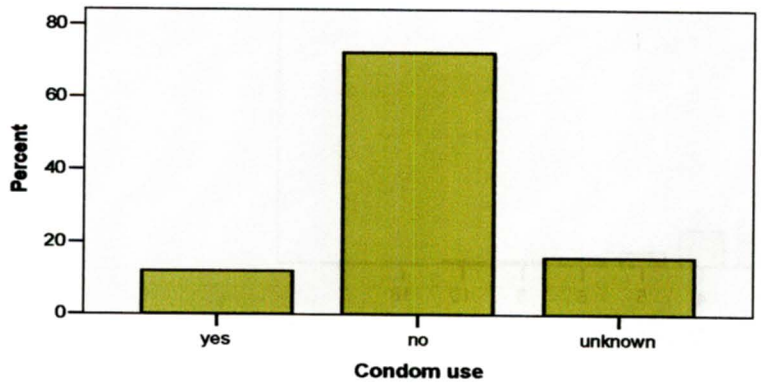


Table 12. Condom use in frequencies and percent

		Frequency	Percent
Valid	no	500	72.4
	unknown	109	15.8
	yes	82	11.9
	Total	**691**	**100.0**

Table 12 illustrates that most rapes (72%) were perpetrated without the use of a condom. However, in over 15% of rapes it was not known if one was used. Condom use was reported in 12% of cases.

This is a controversial topic and has on occasion been used as a defence for rapists in court, who claimed that the 'rape' must have been consensual if a condom was used. The need for further research in this area is indicated in order to assess this argument.

MULTIPLE VARIABLE ANALYSIS

Further analysis of statistical relationships between variables was conducted in order to identify patterns in the data. These data were divided into three sections, namely; characteristics of (i) the survivors, (ii) perpetrators and (iii) rape situation. The analysis was conducted using frequencies, Chi-square tests and multiple regression.

3.2 CHARACTERISTICS of SURVIVORS

3.2.1 Age of survivors by day of the Week

Survivors' ages were collapsed into 10-year groups. The collapsed age groups were compared with day of the week in which the rape occurred. Frequencies are reported in Table 13.

Table 13. Frequencies of Age of survivor by Day of the week in %

	to 15 yrs	16-25 yrs	26-35 yrs	36-45 yrs	46-55 yrs	56+ yrs
Monday	12.9	13.6	13.2	17	8.7	22.2
Tuesday	15.9	11.9	11.4	9.4	4.3	0
Wednesday	12.9	13.6	13.2	15.1	8.7	0
Thursday	8.3	10	11.4	9.4	13	0
Friday	13.6	11.1	14.9	13.2	13	33.3
Saturday	12.9	16.9	20.2	15.1	21.7	22.2
Sunday	17.5	21.9	15.8	20.8	30.4	22.2
TOTAL %	**94**	**99**	**100.1**	**100**	**99.8**	**99.9**

The frequencies of the age of the survivor and day of the week generated the following non-significant patterns:

- Of the week days (excluding weekends) the younger survivors, aged up to 15 years, were more commonly raped on a Tuesday; and the 36-45 age group were more likely to be raped on a Monday.
- The days surrounding the weekend were the only days that the 56+ age group were at risk of being raped.

- Sundays were the most common day for being raped across all age groups, except the 26-35 year old group, for whom it was more common to be raped on a Saturday, and the 56+ group who were more likely to be raped on a Friday.

3.2.2 Survivor's Age by Relationship to perpetrator

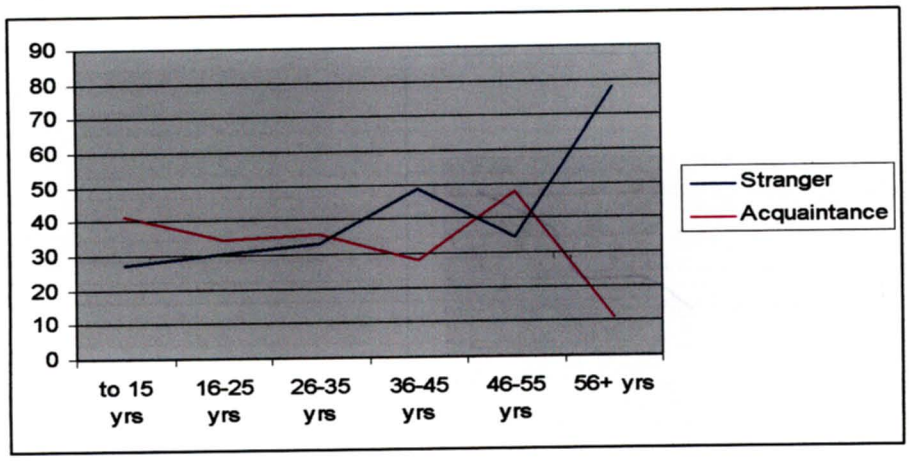
The frequencies of the grouped ages of the survivors were compared with 'relationship to perpetrator' and are displayed in Table 14.

Table 14. Frequencies of Age of survivors and Relationship to perpetrator

Relationship In %	to 15 yrs	16-25 yrs	26-35 yrs	36-45 yrs	46-55 yrs	56+ yrs
Stranger	27.3	30.3	33.3	49.1	34.8	77.8
Acquaintance	41.7	34.4	36.0	28.3	47.8	11.1
Friend	11.4	8.9	3.5	7.5	4.3	11.1
Relative	9.8	5.3	0.9	1.9	0	0
Intimate friend	9.1	20.6	24.6	7.5	8.7	0
Husband	0	0	1.8	5.7	4.3	0
Unknown	0.8	0.6	0	0	0	0
TOTAL	**100**	**100**	**100**	**100**	**100**	**100**

Table 14 indicates that the younger survivors (aged < 35 years) were more likely to be raped by an acquaintance than a stranger. Then as the survivors became older, in the 36-45 year age group, they were more likely to be raped by a stranger than an acquaintance. The older age group (46-55 years) had the opposite pattern, similar to the younger age group – they were more likely to be raped by an acquaintance and less likely to be raped by a stranger. Graph 15 presents a comparison of age groups in the 'stranger' and 'acquaintance' categories.

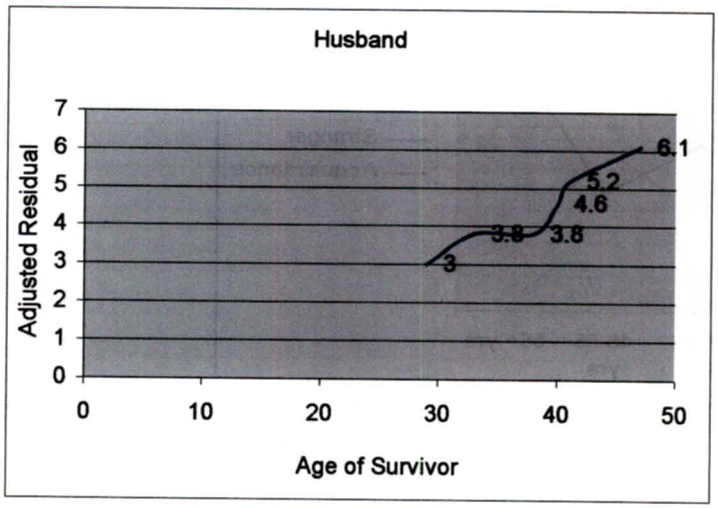
Graph 15. Relationship compared between Age and stranger or acquaintance



Chi-square associations describe a young survivor (under the age of 15 years) as being significantly most likely to be raped by a friend (age 8 AR= 3.3; age 15 AR= 2.0) or a relative (age 7 AR= 4.4; age 10 AR= 3.0; age 11 AR= 2.3; age 12 AR= 2.3; age 14 AR= 3.3) compared with survivors of older ages. This pattern is different to the one generated by the percent frequencies in Table 14, which states that a child under the age of 15 years was more likely to be raped by an acquaintance, and it is suspected that this is an example of a 'familywise error', discussed earlier.

There was no significant association between a survivor older than 15 years being raped by either a friend or a relative. A stranger was significantly least likely to rape a 17 year old (AR= -2.4) and increasingly likely to rape older survivors aged 25 (AR= 2.6); 30 years (AR= 2.6); 40 years (AR= 2.3) and 59 years (AR= 2.0). The perpetrator was significantly more likely to be a husband as the survivor's age increased, although the husband was still not the most likely perpetrator in any of the age groups. This pattern is presented in Graph 16 in adjusted residuals.

Graph 16. Adjusted residuals of 'husband' as perpetrator per age of survivor.



A multiple regression test was conducted using the dependent variable 'relationship to perpetrator' with 'intimate partner' as the contrast, in an attempt to identify a high-risk age for relationship to perpetrator. The overall regression for this model was significant ($p < .005$, $R^2 = .057$, df1 = 5, df2 = 685) and the findings for the variables in question are presented in table 15. The survivor's age was predicted by relationship to the perpetrator. 'Stranger' was significantly different to 'intimate boyfriend' and a 'stranger' was significantly more likely to rape older survivors than younger ones ($p = .002$, $B = 3.519$). This means that the survivor's age increased by 3.5 years when comparing ages of survivors raped by an 'intimate' perpetrator with those raped by a 'stranger'.

Rape by an 'intimate boyfriend' was also significantly different to rape by a 'husband'. As was found with the adjusted residuals in Graph 16, rape by a husband was more likely to apply to older survivors than young ones. The age of survivor was likely to increase by 15.8 years when comparing an 'intimate partner' perpetrator with a rape perpetrated by a 'husband' ($p < .0001$, $B = 15.894$). This could logically be explained by the fact that older survivors were more likely to be married than younger survivors. However, it appears to highlight the increased risk of domestic violence faced by married women. Younger survivors were significantly more likely to be raped by a 'relative' of theirs than by an

'intimate boyfriend' (p = .014, B = -4.547). When comparing these two types of relationship to the perpetrator, the age of the survivor decreased by 4.5 years in the case of 'intimate boyfriend'. A statistically significant association was found with age of survivor being predicted by the relationship to the perpetrator.

Table 15. Multiple regression with dependent variable Age of survivor using Relationship to perpetrator ('intimate' as the contrast) [1]

Variable	Contrast	Significance	B
Husband	Intimate	0.000	15.894
Stranger	"	0.002	3.519
Relative	"	0.020	-4.547

3.2.3 Survivor's age by Violence type

Again the grouped ages of the survivors were compared with the violence used during the rapes in order to identify any patterns. Frequencies are reported in percent in Table 16.

Table 16. Survivor's age compared with Type of violence in percent

VIOLENCE TYPE In %	to 15 yrs	16-25 yrs	26-35 yrs	36-45 yrs	46-55 yrs	56+ yrs
Not stated	6.1	4.4	5.3	1.9	4.3	0
Gun	8.3	9.7	16.7	9.4	8.7	0
Knife	10.6	10.6	14.9	18.9	13	11.1
Weapon	0.8	1.4	0.9	3.8	0	11.1
Beating	18.9	29.2	36	34	21.7	22.2
threat/coercion	13.6	7.5	5.3	3.8	13	0
overpowering	39.4	34.2	20.2	24.5	30.4	44.4
Drugged	2.3	3.1	0.9	3.8	8.7	11.1

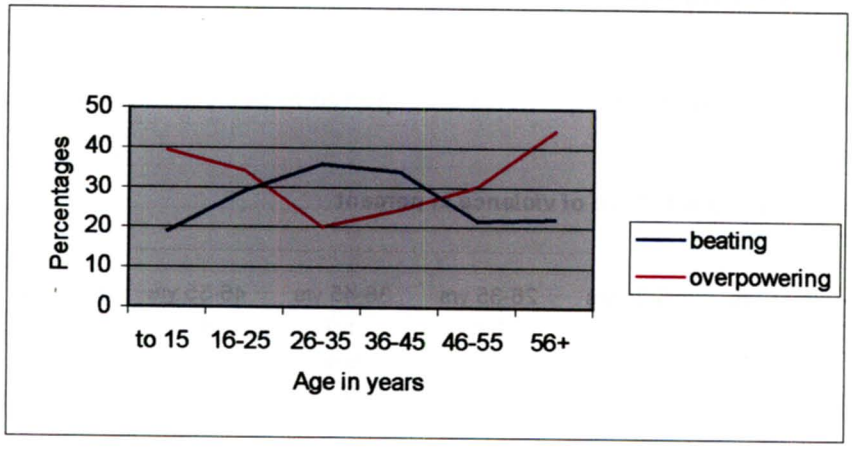
From the frequency table (Table 16), it was evident that the younger survivors, up until age 25 years, were more likely to be overpowered (39.4% and 34.2% of the time respectively) than any of the other types of violence used. The older survivors (from age 26 to 45 years) were more likely to be beaten (36% of 26-35 year olds; 34.0% of 36-45 year olds). In the

[1] Refer to introduction of this chapter for explanation of 'contrast' variables.

older survivors from age 46 upwards, overpowering again became the violence type used most (46-55 years 30.4%; 56+ years 44.4%).

Survivors in the 36-45 year age group were exposed to more physical violence than younger survivors. They were most likely to be beaten (34.0%) or overpowered (24.5%), threatened with a knife (18.9%) or gun (9.4%). It was less likely that they would be coerced or threatened (3.4%). The highest rate of survivors being coerced and threatened was in the youngest age group (13.6%), but this was still less frequent than overpowering (39.4%) and beating (18.9%) in this young age group. The pattern in the age groups comparing beating and overpowering is presented in Graph 17.

Graph 17. Pattern of two frequently used Types of violence per age group



In each age group a knife was more commonly used than a gun, except for 26-35 year olds in which the gun was used more frequently (16.7%) than a knife (14.9%). Overpowering was relatively low in the 26-35 year age group (20.2%) compared with beating (36.0%). The only other age group where beating was more frequently used (34%) than overpowering (24.5%) was in the 36-45 year old age group.

Discussion

A possible hypothesis for this pattern of beatings being used more frequently than overpowering in the 26-35 and 36-45 year age groups is that these survivors were physically

stronger and less intimidated by the male offender. They may be more likely to fight back. They were therefore less likely to be overpowered and more violence would be required in the form of, for example, a beating.

When examining the counts using chi-square, the following patterns emerged: it was significantly more likely that younger survivors would be coerced or threatened (age 7 AR=3.4; age 11 AR=3.7; age 15 AR=2.0). Survivors in their early adult to middle age were significantly more likely to be beaten (age 26 AR=2.4; age 38 AR=2.5; age 41 AR=2.1). Survivors in the 24-31 year age group were significantly more likely than any other age to be raped at gunpoint (age 24 AR=2.6; age 30 AR=3.1; age 31 AR=2.3), although a gun was not the most common method used for this age group.

The regression model, using violence type to predict the survivor's age (with beating as a contrast) was found not to be significant ($p = .067$, $R^2 = .019$). However within the variables, it was possible to identify one variable that could significantly predict the age of the survivor, and that was 'overpowering' ($p = .050$, $B -1.996$). This means that with a change in violence type from beating to overpowering, the survivor's age would reduce by approximately 2 years. Young survivors were significantly more likely to be overpowered than beaten in a rape.

3.2.4 Survivor's age by Time-lapse in reporting

Using multiple regression, the model predicting the age of the survivor by the time-lapse before reporting the rape (with 1 month as the contrast), was found to be significant ($p = .024$, $R^2 = .007$, $df1 = 1$, $df2 = 676$). The age of the survivor would reduce by 0.06 of a year (about 5 months in age) per unit of time-delay ($B = -.065$). The collapsed units of 'time delay' are repeated for convenience: Immediate, 1 day, 2 days, 3 days, 4-10 days, 11-20 days, 1 month, 3 months, 6 months, +6 months. This means that younger survivors would report a rape earlier than older survivors.

Discussion

Collings et al. (2005) found that patterns of disclosure were predicted by a number of independent variables. These included the age of the survivor, nature of relationship with perpetrator, offender's age, and frequency of abuse. The current study also identified a significant pattern between disclosure and age of survivor. However, Collings et al. (2005) offered a further dimension to disclosure by children in their description of two disclosure categories; namely child-initiated disclosure versus detection by an adult/carer. They found that accidental detection by an adult/carer occurred in 43% of cases, whilst the child purposefully reported in only 30% of disclosures.

In this study where younger survivors reported earlier than older survivors, disclosure could feasibly be either of the abovementioned categories. In the event of accidental detection (more common than purposeful disclosures), if the adult was inclined to report the incident, they may have done so as soon as possible after detection. However, Collings et al. (2005) found that reporting does not automatically follow disclosure. In their study, although up to 72% of children disclosed their abuse to an adult, only 12% of these were actually reported to authorities. There are numerous possibilities for this pattern, and they could include factors like the child's agency and request not to report. It is more likely that an older child would have more influence than a younger child in this regard. This could account for the pattern in time delay before reporting the rape that was found in this study.

3.2.5 Survivor's age by Location

The location of rape was compared with survivors' ages using frequencies and these are reported in Table 17. There were no significant findings in the chi-square analysis.

Table 17. Frequencies of Survivors age specified by Location in percent

LOCATION in %	to 15 yrs	16-25 yrs	26-35 yrs	36-45 yrs	46-55 yrs	56+ yrs
Taxi rank	0.8	0.3	0.9	0	0	0
Public bar	1.5	0.8	0	0	0	0
public space	6.1	9.4	9.6	13.2	4.3	11.1
other house	28	28.9	21.1	15.1	0	11.1
survivor house	21.2	13.1	22.8	20.8	43.5	33.3
urban deserted	12.1	15	13.2	20.8	13	11.1
rural deserted	17.4	18.3	16.7	22.6	21.7	11.1

Younger survivors were more often raped in another person's (including the perpetrator's) house (up to 15 years 28.0%; 16-25 years 28.9%). As the survivor's age increased to 26-33 years, they were more likely to be raped in their own home (22.8%) compared with another person's house (21.1%). The survivors most likely to be raped in a deserted rural (22.6%) or urban (20.8%) area were in the 36-45 year age group. The two oldest groups (over 46 years) were more likely to be raped in their own home (43.5% and 33.3% respectively) than in any other location. The two locations of 'survivor's house' and 'other house' were compared and Graph 18 presents the pattern of frequencies.

Graph 18. A pattern of two Locations by Survivor's age

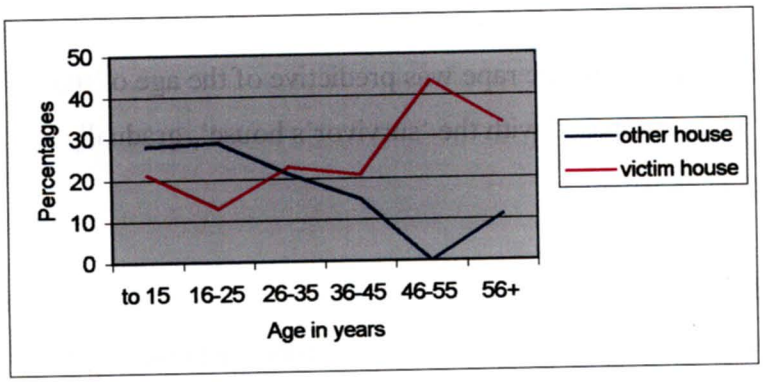


Table 18. Dependent variable Age of Survivor by Location (with survivor's house as the contrast)

Variable	Contrast	Significance	B
Other house	Survivor's house	0.000	-5.649
Deserted rural	"	0.005	-3.750
Deserted urban	"	0.007	-3.925
Public space	"	0.026	-3.621
Public bar	"	0.044	-9.370

A multiple regression model was used in an attempt to predict the age of survivor using location, with 'survivor's house' as the contrast. Results are presented in Table 18. Location of the rape was found to be a significant predictor of the survivor's age ($p = 0.04$, $R^2 = .030$, $df1 = 27$, $df2 = 647$). As the location changed from 'other house' to 'survivor's house', the age of survivor decreased by 5.6 years. This means that the younger survivors were significantly more likely to be raped in their own house than older survivors. As the location switched to 'deserted rural' from 'survivor's house', the age of survivor decreased by 3.7 years. This means that older survivors were significantly more likely to be raped in a 'deserted rural-or urban' location than younger ones, who were again significantly more likely to be raped in their own house. The strongest predictor of age using location was a 'public bar' in which the survivor was likely to be 9.3 years older than those survivors raped in their own homes. In a 'public place', age of the survivors was likely to be 3.6 years older than survivors raped in 'survivor's house'. In summary, young survivors were significantly more likely to be raped in their own homes than older survivors who were more likely to be raped in another person's house, a public bar or deserted area.

It is therefore possible to state that the location of the rape was predictive of the age of the survivor. The age of the survivors, when compared with the 'survivor's house', gradually increased with each location listed in Table 18.

3.2.6 Age of survivor by Race of perpetrator

The age of the survivor was analysed with the race of the perpetrator using frequencies and multiple regression. From the frequency data, it was possible to identify a number of patterns, although these were not found to be significant using the chi-square analysis. These patterns are presented in Table 19 and should be read per age group in the columns. Some

survivors did not state the race of the rapist, so the sum of the columns is not 100%, except for the oldest group (56+ years).

Table 19. Age of survivor by Race of perpetrator in percent

RACE OF PERPETRATOR In %	to 15 yrs	16-25 yrs	26-35 yrs	36-45 yrs	46-55 yrs	56+ yrs
African	72.7	77.2	87.7	69.8	78.3	88.9
White	0.8	1.7	0.9	0	8.7	0
Indian	7.6	4.2	0.9	9.4	0	0
Coloured	0.8	1.1	0.9	0	4.3	11.1
Total % per age group	**81.9**	**84.2**	**90.4**	**79.2**	**91.3**	**100**
Race not stated by survivor	18.1	15.8	9.6	20.8	8.7	0

African perpetrators were more likely to rape the 26-35 year age group. Of the 26-35 age group, 87.7% of perpetrators were African. The other three race groups each made up roughly 1% of rapes in this age group. The most common race to rape the 56+ age group was African perpetrators, making up 89% of this group. Coloured perpetrators also raped in this age group (11%) and this was the most common survivor age for Coloured perpetrators.

White perpetrators focused largely on the 46-55 year age group (making up 8.7% of this age group). The second most common age group for White perpetrators was 16-25 year olds, making up 1.7% of the age group.

Indian perpetrators tended to rape younger survivors (7.6% of survivors up to age 15). The highest age group raped by Indian perpetrators was 36-45 year olds (9.4% of this age group). Coloured perpetrators focused on the opposite end of age continuum and most rapes were committed in the 46-55 year old group and 56+ group (11.1%). However, the absolute number of this age group was small, so this information may be spurious.

Using race of perpetrator to predict age of survivor, with 'Indian' as the contrast in a multiple regression analysis, the overall model was not significant ($p = .149$, $R^2 = .010$). However, a significant prediction was found within the variables. When the race of the perpetrator switched from an Indian to a Coloured rapist, the age of the survivor increased by 7 years ($p = .040$, $B = 7.309$). This means that Indian perpetrators were more likely than Coloured perpetrators to rape young women.

3.2.7 Survivor age by Crime associated

The survivor's age was analysed using crime associated with the rape to identify patterns in the data. In the frequencies, reported in Table 20, a link was found between survivor's age and crime associated with the rape. The Chi-square analysis found no statistical significance between these variables.

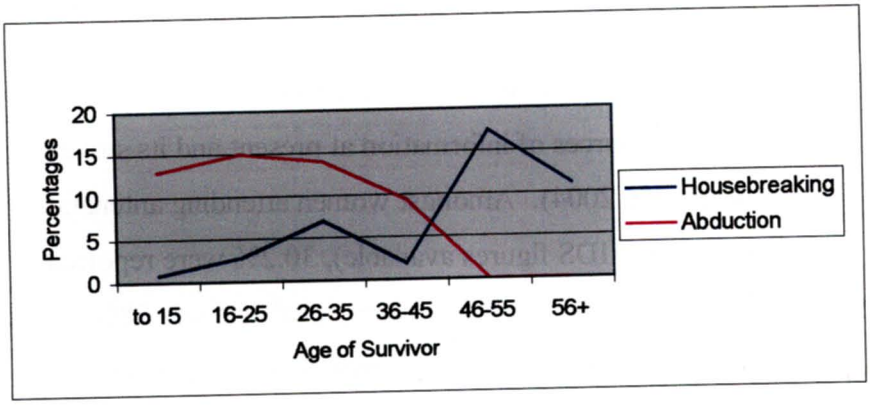
Table 20. Frequencies of Age of survivor and Associated crime in percent

CRIME ASSOCIATED in %	to 15 yrs	16-25 yrs	26-35 yrs	36-45 yrs	46-55 yrs	56+ yrs
None	86.4	81.6	74.5	84.9	73.9	88.9
Housebreaking	0.8	2.8	7.0	1.9	17.5	11.1
Murder	0	0.3	0	0	0	0
Personal theft	0	0.3	0.9	1.9	4.3	0
Hijacking	0	0	1.8	0	0	0
Abduction	12.9	15.0	14.0	9.4	0	0
Other	0	0	1.8	1.9	4.3	0
TOTAL per age group	**100**	**100**	**100**	**100**	**100**	**100**

Across all the age groups, it was most common for no crime to be reported with the rape and comment was made in the previous section (3.1.7) on this topic. In all the younger age groups (up to 35 years), the most common crime was abduction of the survivor, usually to another person's house, where they may have been kept from 1 to about 20 days. However, in the older two age groups, in which they were more often raped in their own home, the most commonly associated crime was housebreaking (age 46-55 years17.4%; age 56+ years 11.1%). The increase in housebreaking amongst the older survivors may be as a result of accumulated wealth. This could be either opportunistic rape or opportunistic stealing once in the survivor's house.

A pattern was identified when relating two associated crimes with the age of survivor. This is presented in Graph 19 below. In the 46-55 age group, as the frequency of housebreaking increased, the frequency of abduction decreased. Abduction is shown as being higher in the younger age groups and gradually decreases with increased age of the survivor.

Graph 19. Association between housebreaking & abduction by Age of the survivor



3.2.8 HIV Status

The HIV statistics were analysed from a different source, using the same core sample. These data were obtained not from individual case records used in the main study but from unlinked clinical records where this confidential information was kept. This information is gathered meticulously as it is considered essential for the proper medical care and management of the survivors. For the dates October 2002 to December 2004, 810 survivors presented at the Rape Crisis clinic, of these 772 were given valid HIV tests to ascertain potential for treatment with anti-retroviral drugs.

Table 21. Totals of HIV test results for above dates

	Number	Average age	% status known
Grand TOTAL	810		
Total POSITIVE	254	24.8 yrs	**32.90**
Total NEGATIVE	518	21.8 yrs	**67.09**
Total known	**772**		
Unknown, refused test, invalid result	38		

The total percentage of those who received a positive result was 32.9% and 67.09% received a negative result. Because the HIV data was unlinked from the demographic and case file data, no analyses could be done on the relationship between HIV status and the variables mentioned in the preceding sections of this study.

The average age for the sample was 23 years (SD=10). The average age of the survivors who were HIV-positive (25 years) was higher than those who were HIV-negative (22 years). The average age of HIV-positive survivors was also higher than the average age of the sample (23 years).

Discussion

The HIV statistics generated in this study appear to be comparable to the UNAIDS epidemiology (UNAIDS, 2006). Antenatal clinics run by the Department of Health are considered to be one of the most systematic sources of information at present and its survey reports similar findings to UNAIDS (Freeman, 2004). Amongst women attending antenatal clinics in 2005 nationally (the most recent UNAIDS figures available), 30.2% were reported to be HIV seropositive. For pregnant women aged 20-24 years, the prevalence was 28% - 31%. However, it appears that the prevalence may be stabilising amongst younger women. It was lower for younger pregnant women (aged 15-19 years), being 14% - 16% (UNAIDS, 2006). This pattern of stabilization was replicated in the current study as the average age of HIV+ survivors was higher than the average age of HIV- survivors. Owing to the 'window period' in which is impossible to accurately test for sero-prevalence, it has not been feasible to speculate on how many of the current sample became HIV+ following the rape. The survivors do not return for follow up at the clinic upon completion of the PEP medication and so contact is lost.

As mentioned, young women are at particular risk of becoming HIV+ following a rape. Speculation on likely reasons for this are: (i) degree of physical trauma during sexual violence increases lacerations and exposure to blood or body secretions (WHO, 2004); and (ii) inability to negotiate condom use is directly linked to the violence of the crime and gender power issues (Wingood & DiClemente, 1997).

Freeman (2004) maintains that for a disease as prevalent as HIV/AIDS, which has the potential to cause serious global mental-health damage, there is relatively little attention given to its interface with sexual violence. It is hoped that this pilot study may offer a baseline for future research into the area of rape and HIV risk.

3.2.9 SUMMARY OF MAIN SURVIVOR FINDINGS:

(i) Age of the survivors

The age of survivors was found to be associated with a number of other variables. Given South Africa's reputation for having one of the highest rates of child rape in the world (Andrews et al., 2006), this information could provide valuable insights. Age was associated

with day of the week of the rape: young survivors were more at risk in the early part of the week and older survivors were more vulnerable over the weekend. Relationship to the perpetrator was significantly associated with age of the survivor. Younger survivors were more at risk from acquaintances, friends and relatives than from strangers. Older survivors were more at risk of being raped by strangers especially the over 56 year old age group. The perpetrator was more likely to be a husband as the age of the survivor increased, highlighting the prevalence of domestic violence in the country.

Type of violence used was also significantly associated with age of the survivor. There was a pattern of young and old survivors being overpowered most frequently, i.e., there was less use of violence than with the middle age-range of survivors, who were more likely to be beaten than overpowered. Younger survivors were more likely to report the rape sooner after the event than older survivors.

The location of the rape was predictive of the age of the survivor. Younger survivors were more vulnerable in their own homes than in another location, whereas older survivors were at greater risk in another person's house, public spaces or deserted urban and rural settings. The race of the perpetrator was also significantly associated with age of the survivor. Indian perpetrators tended to rape younger women and Coloured perpetrators were more likely to rape older women. With regard to crime associated with rape, younger survivors were more likely to be abducted than older ones, and older survivors were more likely to be raped during a housebreaking than younger survivors.

(ii) HIV status

This study was conducted at the central rape clinic for the Pietermaritzburg area where free anti-retroviral treatment could be obtained. There is a possibility that some of the survivors from this sample presented at the clinic with the specific hope of obtaining free anti-retroviral treatment following a rape. HIV+ survivors of rape may not have presented at the clinic if they were already aware of their status, as they would be unable to obtain free anti-retroviral treatment, according to government policy guidelines (2004). When these results are compared with UNAIDS (2006) data, there appears to be very little difference in prevalence between this sample and the UNAIDS data. This suggests that the data from this study have not been excessively skewed owing to the location of the clinic or target population, in terms of HIV statistics.

In terms of prevalence, it was found that 32.9% of the sample tested HIV+ and the average age of this group was 25 years. The remainder of the sample (67.1%) tested HIV- and the average age of this group was younger, being 22 years.

3.3 CHARACTERISTICS of PERPETRATORS

3.3.1 Number of perpetrators by Relationship to survivor

In the frequency data, patterns were found between relationship proximity and the number of perpetrators who committed the rape. They are presented in Table 22.

Table 22. Frequencies of Number of perpetrators by Relationship to survivor in counts & percent

	Single	%	Two	% of 2 perp	Gang (3+)	% of gang	Total	% of total
Stranger	143	25.5	39	62	42	64.6	224	32.55
Acquaintance	210	37.5	16	25.4	21	32	247	35.9
Friend	52	9.3	3	4.7	2	3.1	57	8.28
Relative	34	6.1	0		0		34	4.9
Intimate	115	20.5	5	7.9	0		120	17.4
Husband	6	1.1	0		0		6	0.87
Total	**560**		**63**		**65**		**688**	
% of total	81.4%		9.2%		9.4%			

The frequencies in Table 22 show that a single rapist was most often an acquaintance of the survivor (37.5% of the time). The second most common relationship to a single perpetrator was that of a stranger (25.5%). A stranger was most likely to rape in a group of two (62%) or three or more perpetrators (64.6%). Only 7.9% of rapes committed by two perpetrators were committed by intimate partners (and their collaborators). However, intimate partners were the third most common relationship in single perpetrator rape (20.5%).

Gang rapes were committed most often by strangers (64.6%), followed by acquaintances (32%) and least often by a friend (3.1%). A husband was always a single perpetrator as there were no cases of rapes by husbands with multiple perpetrators.

It was highlighted in the chi-square associations ($p<0.005$; $df=54$) that in an attack by either two (AR= 5.2) or a gang of three or more (AR= 4.2) the perpetrators would significantly most likely be strangers. There was also a significant likelihood, but lower than the above,

that a friend of the survivor would rape in a group of two perpetrators (AR= 3.3). The rapist with a closer relationship to the survivor, for example an intimate friend, was significantly less likely to rape in a gang (AR= -2.9).

Discussion

Vetten et al.'s (2005) study found that in only 10% of the rapes with two or more attackers were the perpetrators known to the survivor. This is substantially lower than 38% of two perpetrators and 35% of gang rapists being known to the survivor found in this study. Even so, it was more common for a single rapist to be known to the survivor than a gang rapist. As has been suggested in the literature (Hill & Fischer, 2001), a feeling of entitlement is a predictor of a man's proclivity to rape, as well as gender power differentials that appear to exist in many South African relationships (Kalichman et al., 2005). The more intimate perpetrators may well have an attitude of entitlement and hence not perceive their actions as rape, but rather as their right to sexual intercourse. They would probably be a single perpetrator. Gang rape, on the other hand, is perceived more as an attack on a woman and the motivation is unlikely to involve a sense of entitlement directly associated with her. This type of rape would probably be focussed on the gang and its leader (Laubuschagne, 2006). This could help account for the increased likelihood of a single perpetrator being known to the survivor than in a gang rape situation.

3.3.2 Number of perpetrators by Race

The number of perpetrators was related to the race of the perpetrator to identify patterns in the data. Frequency counts are reported in Table 23.

Table 23. Frequency of Number of perpetrators per Race group (in counts)

no. perpetrators	African	White	Indian	Coloured	Total
single	441	9	28	5	483
two	51	0	3	1	55
gang	45	1	0	2	48
Total	**537**	**10**	**31**	**8**	**586**
Total +2 offenders	**96**	**1**	**3**	**3**	**103**

The above table identified the number of perpetrators per race group. The most rapes committed by two or more perpetrators were by African rapists (n=96; 93.2%), followed by an equal number for Indian and Coloured offenders (n=3; 2.9%). The least number of rapes

committed by multiple rapists were by White offenders (n=1; 0.9%). No significant results emerged in the Chi-square analysis.

3.3.3 Number of perpetrators by Day of the week

The days of the week were related to number of perpetrators to identify any particular day that may be more risky than others for multiple offender rapes.

Table 24. Frequencies of Number of perpetrators by Day of the week

Day of week	Number of perpetrators						
	Single	% on Day	**Two**	% on Day	**Gang**	% on Day	Total
Monday	75	79.8	12	12.8	7	7.4	94
Tuesday	70	85.4	4	4.9	8	9.8	82
Wednesday	77	84.6	9	9.9	5	5.5	91
Thursday	56	82.4	5	7.4	7	10.3	68
Friday	74	84.1	5	5.7	9	10.2	88
Saturday	92	79.3	11	9.5	13	11.2	116
Sunday	110	78.6	16	11.4	14	10.0	140
TOTAL	**554**	**81.6**	**62**	**9.1**	**63**	**9.3**	**679**

The total number of recorded rapes by multiple perpetrators was 125 (18.4%). The frequencies in Table 24 suggest that rape by a single perpetrator was more frequent than rape by two or more perpetrators. However, on Tuesday, Thursday, Friday and Saturday, rape by more than three perpetrators was more common than rape by two perpetrators. Monday, Wednesday and Sunday were the days a survivor was most likely to be raped by two perpetrators. Sunday was the most common day of the week for any multi-perpetrator rape to occur (12.8% of total multi-perpetrator rapes; n=16) and Tuesday was the least common day for multi-perpetrator rape (3.2% of total multi-perpetrator rapes; n=4). This timing is suggestive of availability of time, people and opportunity rendering survivors more vulnerable on a Sunday.

Using chi-square analysis, there was only one significant association in this category ($p<0.005$; df=72). There was an increased likelihood that a survivor would be gang raped over the weekend. Adjusted residuals and counts are reported in Table 25, however, they are small absolute numbers, so this could be a spurious finding and should be interpreted with caution.

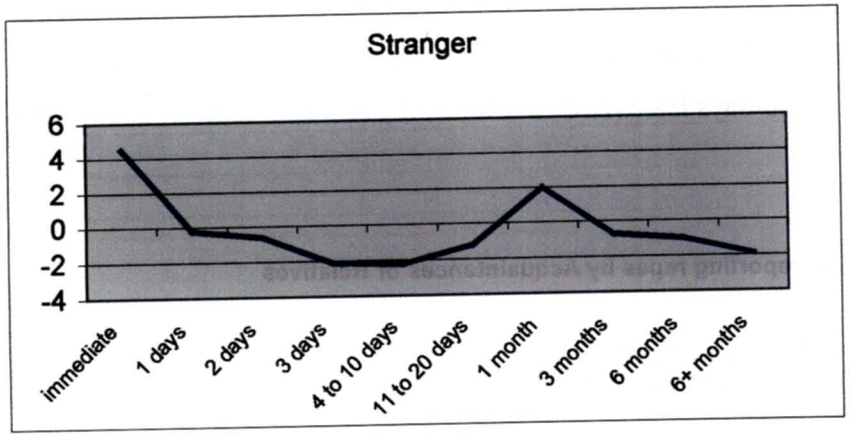
Table 25. Number of perpetrators by Day of the week in adjusted residuals and counts

Number of perpetrators	Day of the week	Adjusted Residual	Counts
+2	Sunday	2.0	1
+4	Saturday	2.2	1
+6	Sunday	2.0	1

3.3.4 Time lapse in reporting by Relationship to perpetrator

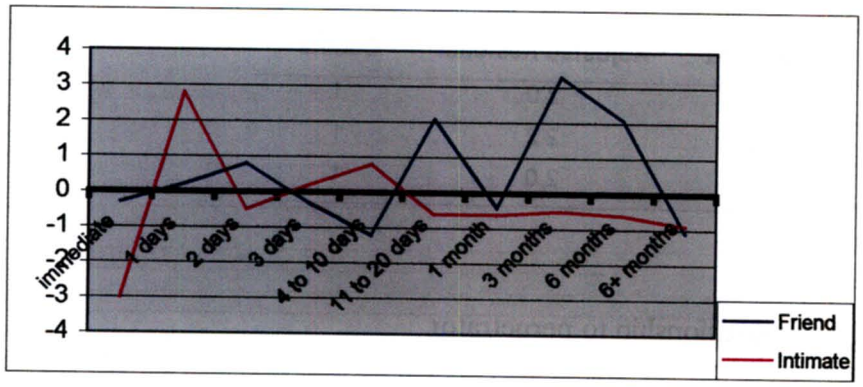
The relationship with the perpetrator was related to the time lapsed before the survivor reported the rape. The frequencies are not reported here and the findings are limited to the chi-square and multiple regression analyses. The chi-square findings are reported in Table 26 below, in adjusted residuals and counts and a number of patterns were identified ($p<0.005$; df=228). These patterns are produced in Graphs 20 –22.

Graph 20. Pattern of Time delay in reporting a Stranger rape in adjusted residuals



As shown in Graph 20, an attack by a stranger was significantly more likely to be reported immediately after the rape (AR= 4.5) or after a month (AR= 2.0) and was significantly least likely to be reported 3 to 20 (AR= -2.1) days later.

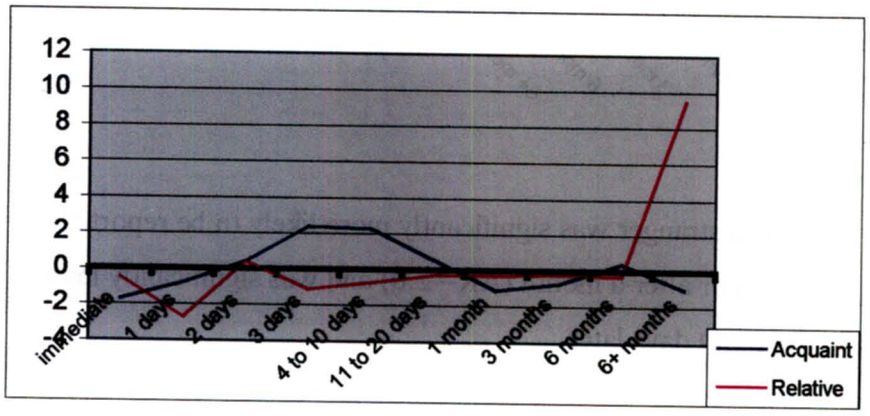
Graph 21. Pattern of Time delay in reporting rape by Friends or Intimate boyfriends



Graph 21 presents the patterns of rapes by friends or intimate friends, in adjusted residuals. A rape was significantly less likely to be reported immediately if the perpetrator was an intimate boyfriend (AR=-3.0). However, the rape was significantly more likely to be reported one day later (AR= 2.8). If the rape was not reported between 4-10 days later, the chance of an intimate partner being reported over the following months became less.

Rape by a friend was unlikely to be reported soon after the event. A friend was significantly more likely to be reported 11 to 20 days later (AR= 2.1 for both) or 3 to 6 months later (AR= 3.3, AR = 2.1 respectively).

Graph 22. Pattern of Time delay in reporting rapes by Acquaintances or Relatives



An acquaintance rape was unlikely to be reported immediately, but was significantly more likely to be reported 3 (AR= 2.4) to 10 days (AR= 2.3) days later. After 10 days, it became less likely that the acquaintance would be reported for the rape. Graph 22 depicts the above patterns in time delay, in adjusted residuals.

Rape by a relative was significantly least likely to be reported one day later (AR= -2.7). There was a strong significant increase in the likelihood that a relative would be reported more than six months after the rape (AR= 9.5). There was no significant association between a husband who raped and the length of time before the rape was reported. The significance of these results should be read with caution as a number of the cells have less than 5 counts.

Table 26. Time lapsed by Relationship to perpetrator in adjusted residuals & counts

Number of days	Stranger	Acquaint	Friend	Relative	Intimate	Husband
immediate	**4.5**	-1.7	-0.3	-0.5	**-3.0**	-0.3
	69	43	11	6	**13**	1
1 days	-0.2	-0.8	0.2	**-2.7**	**2.8**	-0.3
	87	92	23	**6**	**61**	2
2 days	-0.6	0.4	0.8	0.4	-0.5	0.3
	25	32	9	5	13	1
3 days	**-2.1**	**2.4**	-0.3	-1.1	0.2	0.8
	11	**28**	4	1	10	1
4 to 10 days	**-2.2**	**2.3**	-1.2	-0.7	0.8	-0.3
	0	**7**	0	0	4	0
11 to 20 days	-1.2	0.6	**2.1**	-0.3	-0.6	-0.2
	0	2	**1**	0	0	0
1 month	**2.0**	-1.1	-0.4	-0.3	-0.6	-0.1
	2	0	0	0	0	0
3 months	-0.7	-0.7	**3.3**	-0.2	-0.5	-0.1
	0	0	**1**	0	0	0
6 months	-1.0	0.4	**2.1**	-0.3	-0.6	-0.1
	0	1	**1**	0	0	0
6+ months	-1.9	-1.0	-1.1	**9.5**	-0.9	-0.3
	1	3	0	**8**	1	0

Bold font = significant (significance level $p < 0.005$),

Multiple regression tests were run to predict the 'time lapse' before reporting the rape, using the following variables: condom use, number of perpetrators, relationship to perpetrator, associated crime, number of times a survivor was raped, day of the week, and whether or not it was a public holiday. There was one significant predictor using 'relationship' as the dependent variable and 'intimate' as the contrast. It was found that compared with an 'intimate' offender, the 'friend' who raped would be reported five time delay units later ($p = .017$, $B = 5.265$). This was a considerable time, given that the time delay units are not continuous (see Table 26 for clarification). The findings for the multiple regression are reported in Table 27 below.

Table 27. Time Lapse before reporting the rape, using Relationship to perpetrator as dependent variable ('intimate' as the contrast)

Variable	Contrast	Significance	Beta	B
Friend	Intimate	0.017	0.106	5.265

Discussion

Speculation for the length of delay before reporting a rape by a relative could include the following: the survivor may have suffered repeated sexual assaults over a long period (in this case up to 6 months) and the abuse may have either been accidentally discovered or the survivor may have been given some incentive to report. The disclosure may result in the rape being reported to authorities, although as Collings et al. (2005) have noted, even after disclosure, only a small percent of abuse is actually reported. As mentioned, other variables such as the survivor's relationship to perpetrator, nature of abuse and age of survivor also impact on time delay before reporting (Collings et al., 2005).

3.3.5 Race of perpetrator by Use of condom

A Logistic Regression test was run in order to identify the odds of a perpetrator using a condom, by his race ($p = .023$, $df = 4$). It was found that compared to Indian offenders, African perpetrators were *1.7 times less* likely to use a condom (B= .523; Expβ = 1.687); White perpetrators were *0.8 times more* likely to use a condom (B= -.192; Expβ = .825) and Coloured perpetrators were *0.5 times more* likely to use a condom (B= -.598; Expβ = .550).

Chi-square results suggested that African perpetrators were more likely not to use a condom than to use one ($p=0.008$; $df=8$; $AR=3.4$).

Discussion

The 72% of rapists who did not use a condom in this study is higher than Pelzer (2003) reported in his research conducted with a random sample of Black and White South Africans. In his sample, about 55% of sexually active men reported not using a condom in the past three months, although these were reportedly not rapes. Of those who had never used a condom, 28.6% were Black men and 18.9% were White men. These figures suggest a relatively low use of condoms across both races during sexual intimacy. Given the violent nature of rape, it is quite surprising that condoms were used at all.

3.3.6 Violence type by Substance used by perpetrator

In the Chi-square test one significant association was found, which was expected. There was an increased likelihood of the survivor being given alcohol ($p<0.005$; df=14; AR=5.6) if the perpetrator had used alcohol himself. The use of alcohol by females has been identified as a risk factor in the incidence of rape in previous studies (Brecklin & Ullman, 2001).

3.3.7 SUMMARY OF MAIN PERPETRATOR FINDINGS

(i) Relationship to perpetrator and Time delay before reporting

Relationship to the perpetrator was associated with time delay before reporting the rape. The longest time delay was associated with rape by a relative, where the perpetrator was unlikely to be reported before 6 months after the incident. In contrast, rape by an intimate boyfriend was most likely to be reported one day after the incident, or not at all. There was a relatively longer time delay before reporting rape by a friend, who was more likely to be reported 3-6 months after the incident, if he was not reported 11-20 days afterwards. Rape by a stranger was most likely to be reported immediately or after one month. After one month, the likelihood of reporting rape by a stranger decreased.

(ii) Gang rape

The Crisis Centre was anxious to determine the prevalence of gang rape within its catchment area as it was suspected that this phenomenon had increased in recent years. In the absence of previous data on this variable, it is not possible to study a trend. However, the information provided in this study may contribute to a fuller analysis in the future. There were as many rapes with two (n=62; 9.1%) as with three or more perpetrators (n=63; 9.3%), while rape by a single perpetrator was the most common (n=554; 81.6%). There was an increased risk of being gang-raped over the weekend. Sunday was the most likely day (12.8%) and Saturday the second most common day (11.2%) for multi-perpetrator rape.

A gang rape was significantly more likely to be committed by strangers. A friend of the survivor was likely to rape in a group of two perpetrators. The closer the relationship to the survivor, the less likely the attack would be perpetrated by multiple offenders.

(iii) Race of Perpetrator

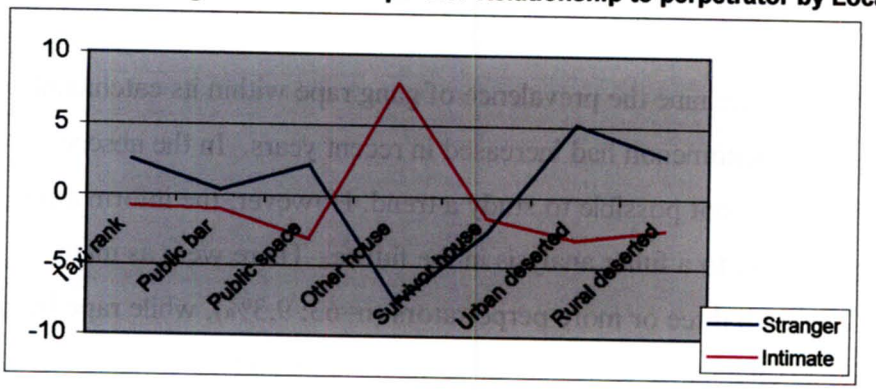
Four race groups were compared and their representation in the sample relative to the KwaZulu-Natal population statistics was calculated. These figures may be skewed owing to the location of the rape crisis centre, as mentioned previously. However in this sample, it was found that African offenders were over-represented (by 7.21%), Coloured perpetrators were represented almost proportionally (by -0.12%), and White and Indian perpetrators were under-represented in the sample (by -3.64% and -3.45% respectively). With regard to multi-offender rape, African perpetrators were more likely to rape in a group of two or more than other race groups. Within all the race groups, it was most likely that African offenders would not use a condom, however, there was a low percentage of condom use across all race groups.

3.4 CHARACTERISTICS of the RAPE

3.4.1 Location by Relationship to Perpetrator

Chi-square tests were run for the variables of location of the rape and survivor's relationship to perpetrator. The associations are reported in Table 27 and patterns presented in Graphs 23 and 24.

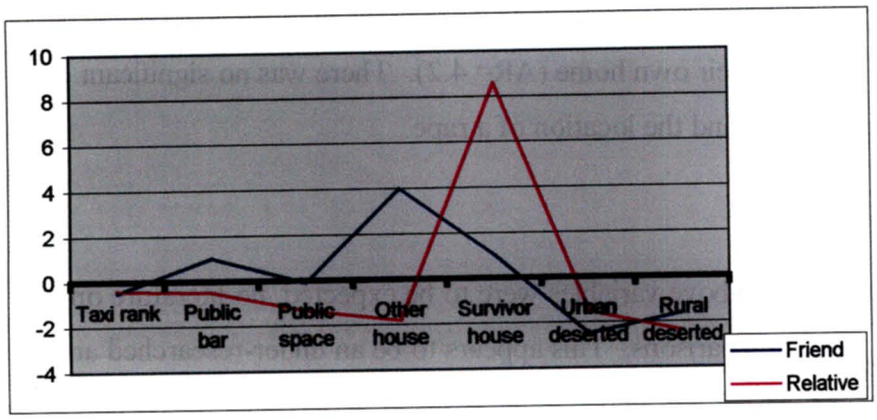
Graph 23. Stranger and Intimate partner Relationship to perpetrator by Location in adjusted residuals



Graph 23 shows the patterns of location of rape for the categories of stranger and intimate friend, in adjusted residuals. Of all the locations, a stranger was significantly less likely to rape in another person's house (AR= -7.6) or the survivor's house (AR= -2.6). They were significantly most likely to rape in a deserted urban (AR = 5.2) or rural setting (AR= 3.0). The stranger was also more likely than any other relationship to rape at a taxi rank (AR= 2.5) or public space (AR= 2.2), for example in the street. An intimate friend was significantly more likely to rape in the perpetrator's or another person's home (again, not the survivor's) (AR=

8.0), and significantly least likely to rape in a deserted urban (AR= -2.3) or rural space (AR= -2.3).

Graph 24. Friend and Relative Relationship to perpetrator by Location in adjusted residuals



From Graph 24, it can be seen that a friend was significantly most likely to rape at another person's home (AR= 4.0) (often the perpetrator's own house) rather than the survivor's house. Of all the locations, a friend was significantly least likely to rape in a deserted urban area (AR= -2.5). A relative was significantly most likely to rape in the survivor's home (AR= 8.6) and least likely to rape in a deserted rural area (AR= -2.4). Again, those cells with less than 5 counts should be interpreted with caution.

Table 28. Associations between Location and Relationship to Perpetrator

Location	Stranger	Acquaint	Friend	Relative	Intimate	Husband	TOTAL Count
Taxi rank	**2.5**	-1.3	-0.5	-0.4	-0.8	-0.2	
	3	0	0	0	0	0	3
Public bar	0.4	0.2	1.0	-0.5	-1.0	-0.2	
	2	2	1	0	0	0	5
Public space	**2.2**	1.1	-0.1	-1.3	**-3.1**	-0.8	
	28	26	5	1	**2**	0	62
Other house	**-7.6**	-0.6	**4.0**	-1.8	**8.0**	-1.4	
	16	59	**27**	4	**65**	0	174
Survivor house	**-2.6**	-1.4	1.0	**8.6**	-1.5	**4.2**	
	28	38	13	**25**	16	**5**	125
Urban deserted	**5.2**	-0.4	**-2.5**	-1.5	**-3.0**	-1.0	
	55	34	**2**	2	**7**	0	100
Rural deserted	**3.0**	1.0	-1.6	**-2.4**	**-2.3**	-0.1	
	55	50	6	**1**	**13**	1	126
Not stated							96

Bold = significant (significance p<0.005; df=48)

Table 28 showed associations across all the locations by relationship with perpetrator, reported in counts and adjusted residuals. It can be seen that in all the locations, except for 'public bar', the perpetrator was significantly most likely to be a stranger.

The only significant pattern identified with a husband who rapes his wife was that he was, not surprisingly, most likely to do so in their own home (AR= 4.2). There was no significant association between an acquaintance and the location of a rape.

Discussion

Although most of the findings in the above variables were to be expected, no literature on location could be found to make comparisons. This appears to be an under-researched area. Whilst the popular theory that rapists are usually 'strangers in a deserted alley' has been disproved and it is now known that more rapes are committed by known perpetrators than strangers, it was found in this study that a stranger was least likely to rape in a person's house and more likely to rape in a deserted or public area. If the survivor attended a public bar with friends, she was again less likely to be raped by a stranger. These facts lend support to the above theory that a woman is at increased risk of rape by a stranger in any location away from the (relative) safety of her own or another person's home.

3.4.2 Public Holidays

Rapes that were reported as having occurred on or around a public holiday were recorded. In this study, if a public holiday fell on a Sunday, Monday was counted as being the holiday, in line with government practice.

Table 29. Public holidays versus normal days per year in percent and counts

		Number	%
In this study	Not public holiday	628	90.9
	public holiday	63	9.1
In a normal year	Public holidays	14 / 365	3.8
	Normal week days	247 / 365	67.7

Similar to Saturdays and Sundays, public holidays were considered to be high risk days because 9.1% of total rapes occurred on, or within 1 day of, public holidays. They constituted only 3.8% of total days in the year, compared with normal weekdays, which are

67.7% of the year. This means a person was 2.4 times more likely to be raped on, or around, a public holiday than any other day of the year.

Discussion

It was noted that Mondays had a higher incidence of rape (13.6%) than Fridays (12.7%), which was of interest, given Friday's association with the weekend. However, if a public holiday falls on a Sunday, it moves to the Monday (an average of 4 days per year). This means that the incidence of rape on a Monday would increase owing to its association with public holidays. This could possibly explain the high rate of rape on a Monday found in this study.

Not surprisingly, the rate of rapes increased over public holidays and one could speculate some reasons for this. Alcohol may have played an important role in the increase in (domestic) violence. There may have been increased alcohol consumption over festive times of the year by both men and women. The increased risk for women under these conditions has been mentioned before. Partners returning home from working away over a long weekend may also account for increased rate of rape. There may have been a sense of entitlement when men returned home with their pay expecting sexual favours from their partners. Sexual refusal was considered one of the most common triggers of domestic violence (Abrahams et al., 2004).

3.4.3 Number of incidents by Use of condom

The number of times a survivor was raped was related to the frequency of condom use to identify a pattern in the likelihood of a condom being used during a multiple rape. The findings are reported in Table 30 in adjusted residuals and counts.

When reporting on the patterns identified in Table 30, it is possible to observe that it is more likely that the perpetrator(s) *will use* a condom when there are *more incidents* of rape, specifically if there are more than 7 incidents (7 times AR= 2.7; 10 times AR= 4.7; 18 times AR= 2.7). Correspondingly, this pattern was again identified in that it is *unlikely* that no condom would be used in a large number of rapes (10 times AR= -2.8). However, the actual number in the chi-square analysis was lower than 5 in most cells and should therefore be interpreted with caution.

Discussion

Recognising the scarcity of literature on this specific topic, it is necessary to speculate on the motivation for using a condom in the event of a gang rape involving more than 7 incidents. A number of hypotheses are:

1. Time is available to use one as there may be other perpetrators to subdue the survivor
2. The sense of power may be heightened when the perpetrator makes the conscious decision to use a condom
3. A perpetrator may wish to obscure evidence by leaving no traceable semen
4. In a gang rape, the perpetrators may be concerned for their own health and they may use a condom to avoid the risk of contracting HIV or STD from one of the other rapists.

Vetten et al. (2005) found that a condom was used in 4.3% of gang rapes. This was explained in terms of wishing to conceal identifying evidence.

Table 30. Condom used by Number of rapes (in counts and adjusted residuals)

Incidents	Yes	No
1	-0.4	0.2
	47	297
2	-0.7	-0.1
	11	79
3	0.1	1.8
	7	47
4	0.3	-0.7
	5	25
5	0.3	-0.1
	2	10
6	0.2	-0.1
	1	5
7	**2.7**	-1.6
	1	0
8	-0.7	1.2
	0	4
10	**4.7**	**-2.8**
	3	**0**
18	**2.7**	-1.6
	1	0
Total COUNTS	**82**	**500**
Unknown	**109**	

Significance p=0.001; df=20

3.4.4 Location by Condom use

The location of the rape was related to the frequency of condom use to identify if there were locations where a perpetrator would be more likely to use a condom. The findings are presented in Table 31, in counts and adjusted residuals.

In the chi-square analysis of the above variables, it was found that there was a significant association suggesting perpetrators were more likely to use a condom in a 'public bar' (AR=3.3) or 'other's house' (AR=2.3), although this cell had less than a count of 5 and should be interpreted with caution.

Table 31. Association between Location and Condom use

LOCATION	Yes	No	Total n (including Unknown)
Taxi rank	1.2	-0.2	
	1	2	3
Public bar	**3.3**	-1.6	
	3	2	5
Public space	-1.0	-0.3	
	5	44	62
Other house	**2.3**	-1.0	
	29	121	174
Survivor house	0.1	1.0	
	15	95	125
Urban deserted	-1.6	1.4	
	7	78	100
Rural deserted	-0.3	1.3	
	14	97	126

Bold = significant

Significance p=0.001; df=16

By running a multiple regression analysis to predict an offender using a condom or not, the model using location of rape, with 'other house' as the contrast, was found to be significant ($p = .004$, $R^2 = 0.03$, $df1 = 7$, $df2 = 683$). This suggests that when the location switched from 'other house' to rape in a 'public bar', the use of condom by the perpetrator increased by 0.4 times ($p = .003$, $B = .433$). When the location switched to a deserted urban setting from 'other house', the perpetrator would be .09 times less likely to use a condom ($p = .016$, $B = -.097$).

Table 32. Multiple regression to predict the Use of condom per Location as dependent variable (with 'other house' as the contrast)

Variable	Contrast	Significance	Beta	B
Public bar	Other house	0.003	0.114	0.433
Deserted urban	"	0.016	-0.105	-0.097

The model predicting the non-use of a condom was not found to be significant ($p = .446$, $R^2 = .016$). Within the variables, however, there were three significant findings; when compared with 'other house', the prediction strength of the perpetrator not using a condom increased by 1 unit. The same result was found for the locations of deserted urban and deserted rural settings (reported in Table 33).

Table 33. Multiple regression to predict the Non-use of condom for dependent variable of Location (using 'other house' as the contrast)

Variable	Contrast	Significance	Beta	B
Survivor house	Other house	0.040	0.107	0.125
Deserted urban	"	0.024	0.114	0.145
Deserted rural	"	0.027	0.116	0.134

Discussion

It appears from the above findings that there is an increased likelihood of a perpetrator not using a condom in most locations. This is consistent with other findings that have not focused specifically on location, but found in general, men are less likely to use a condom than to use one (Pelzer, 2003). This fact, in spite of the threat of contracting HIV, is of grave concern.

3.4.5 SUMMARY OF MAIN RAPE CHARACTERISTIC FINDINGS

(i) Location

The relationship to the perpetrator was significantly associated with the location of the rape. A stranger was more likely to rape in a deserted urban or rural setting than in the survivor's house. The opposite was true for an intimate boyfriend who was more likely to rape in the

survivor's house than any other location. This was similar to rape by a relative, who would also be most likely to rape in the survivor's house. A stranger was significantly more likely to rape in any location, except a public bar.

(ii) Condom Use

Condoms were more likely to be used in a gang rape than in a rape by a single perpetrator and a number of suggestions have been outlined in an attempt to explain this; namely, concealing incriminating evidence, self-protection against contracting HIV or an STD or an increased sense of power. A condom was most likely to be used in a public bar or at another person's house, however it was shown that perpetrators were unlikely to use a condom in most locations.

(iii) Pubic Holidays

As with weekends, public holidays were considered to be high-risk days for being raped. Most public holidays fell on Monday, so Monday was also considered a particularly dangerous day.

CHAPTER 4 : CONCLUSIONS and RECOMMENDATIONS

The findings in this study were generated by statistical analysis of 691 records at a local Rape Crisis Clinic. The primary focus of this exercise was to lay the groundwork for future research in this crucial area of public health and to provide data for development of prevention and therapeutic interventions. No working model could be drawn from these findings nor any causal links made as the findings are primarily descriptive in nature. This research reports on the current state of rape in the chosen location and hence may not necessarily be generalizable to the rest of South Africa.

It has been suggested by Sanday (2003) that the construction of masculinity is inherent in the society in which men live. This will then vary from one community to the next, with gendered abuse being somewhat more tolerated in a 'rape-prone' society (Sanday, 1990). The constructs of gender can be identified in the terminology that evolves and the behaviours established for the formation of a gender identity. It could be concluded, from previous studies and the current high incidence of rape in this country, that South Africa could probably be considered a 'rape-prone' society. The construction of gender is crucial to any developmental advancement and although South Africa may be well advanced in many areas, in the international arena it is still considered to be a developing country. The progress of this country is likely to be hindered by the conflicts related to gender constructs that exist as a consequence of rapid social transformation in some areas.

4.1 Conclusions

It was found that the age of the rape survivor was positively skewed. Teenagers were the age-group most at risk of being raped. The average age of the sample was 23 years. Age of the survivor was related to a number of independent variables such as day of the week, relationship to perpetrator, type of violence used to subdue the survivor, time-delay in reporting the rape, location, race of perpetrator, and associated crime.

The findings on HIV in this sample replicated UNAIDS (2006) statistics, which found that amongst women, the HIV-positive prevalence was roughly 33%. The interplay between HIV status and rape is a vital area of research owing to the increased risk of contracting the virus during rape.

An apparent increase in the incidence of gang rape was of particular concern to the clinic personnel. However, no trend could be identified as there were no previous data with which to compare the current findings. Nevertheless, this study established that the majority of rapes were committed by single perpetrators (81%), while 9.1% of rapes were committed by more than one perpetrator. Of the multiple-perpetrator rapes, most were committed by strangers, on Mondays and over weekends. It was found that there was an increased likelihood of a condom being used during multiple rapes. Numerous reasons for this were speculated about, such as fear of contracting HIV or an STD from other rapists, a sense of power over the survivor, and for the purpose of obscuring evidence (semen). Qualitative research into the occurrence of gang rape could provide therapeutic insights for the benefit of the survivors of this violent crime, by gaining a fuller understanding of their perceptions and lasting effects on the survivor.

The disclosure and reporting of rape and sexual abuse requires courage and has been described as being almost as traumatic as the rape itself (Human Rights Watch, 1997). Only a small percentage of survivors actually disclose purposefully (Collings et al., 2005). In this study it was found that the time-delay in reporting the rape was associated with two independent variables, namely the age of survivor and survivor's relationship to the perpetrator. Disclosing rape appears to involve a complex interplay of variables. As a result, reported rape figures may be considerably under-representative of the actual figures. This particular aspect of rape has received considerable attention recently and would benefit from ongoing research.

The relationship between the perpetrator and survivor was a significant variable in rape and an intensely emotional facet of the abuse. It was associated with the time-lapse before reporting, age of survivor, the number of perpetrators and the location of the rape. Younger survivors were more likely to be raped by a friend or relative, which impacts on issues like trust and security. This study did not assess qualitative variables but there is a clear need for further research on this topic. The survivor's relationship to the perpetrator also pertains to domestic abuse, as it was found that older women were more likely to be raped by their husbands than by a stranger. As with younger survivors who are abused by known perpetrators, this must impact significantly on the long-term emotional (and mental) well-being of these women.

South African terminology has emerged to describe some of the practises and underlying motivations behind rape that occurs in this country. "Jack-rolling" and "streamlining" are examples of behaviour that may not be unique to the South African context but are very specific. These are gang related activities, which supports the assumption in this thesis that rape is a culturally informed, social crime.

4.2 Limitations

The following limitations have been identified in this research and future studies would benefit from taking these factors into account:

4.2.1 While it would be ideal to be able to apply the data patterns that emerged from this study to current South African literature and to form comparative links, it has not been possible owing to the relatively limited literature specific to the South African context. This analysis was exploratory and descriptive, and thus no causal conclusions can be drawn.

4.2.2 The method of data collection in this research has not been analysed for reliability and this could lead to inconsistencies in the results. However, this research was intended as a pilot study, the main focus of which would be to identify broad areas of interest and indications for future research. The ethical considerations were of high priority and permission was granted for one researcher to have access to the files at the Rape Crisis Centre. Reliability studies would have required at least two data collections, thereby violating the conditions of confidentiality granted to the researcher. Further studies should seek access for at least two raters to ensure that reliability can be determined.

4.2.3 The location of the Rape Crisis Centre may have limited the generalizability of the findings. The Clinic is situated in a semi-urban state hospital setting. The survivors who presented at this clinic, taken as a sample of the South African population, may be over-representative of African people and of the lower socio-economic group (Hayman, 1970). This factor may have skewed the data in various ways which could not be specifically determined.

4.2.4 'Race' is at best a very crude indication of culture, and it is believed that culture is probably a more appropriate variable to use in a study of this nature. However the nature of the data set analysed in this study did not allow for any complex

determination of the culture(s) of victims and perpetrators. The language used in this thesis for racial categorization of the perpetrators was based on the Morrell (2001) text as the most appropriate description of the complex social construct of 'race'.

4.2.5 The requirement in the Chi-square analysis for significant cells to have a count of 5 or more was not always met. The importance of significance was considered secondary to the benefit of identifying patterns that might emerge in the data. Therefore, some significance reported in this study should be read with caution.

4.3 Recommendations

Rape is a mental health issue, as well as a public health issue (WHO, 2006) and as such, the benefit of more research to facilitate a better understanding of the phenomenon has been globally acknowledged. This pilot study has attempted to contribute to the body of research within South Africa and to provide a platform for further studies.

The construct of masculinity has received attention in recent years, particularly in South Africa (Abrahams et al., 2004). Gender-based violence and HIV infection have been linked by Dunkle et al. (2003) which adds a more urgent dimension to the phenomenon. If sexual violence is ever to be reduced, the issue of controlling behaviour by males should be addressed in programmes that explore ideas of masculinity. Further co-operative research may help to explain the complexity of the interplay between masculinity and rape.

Future analysis of data from this, or a similar crisis centre may benefit from the use of a structured questionnaire by clinic staff in order to improve data collection. Routine questions could be completed on a form by the survivor or carer where possible, to prevent the intake interview being perceived as a "data gathering exercise" rather than the desired therapeutic intervention. The use of a data collection form has been attempted by researchers at three Johannesburg health facilities (Swart, Gilchrist, Butchart, Seedat & Martin, 2000 in Vetten et al., 2005). However, owing to reluctance by the staff to use the forms, information generated from this method was incomplete. Data collection in this way would therefore require more than the supply of a tested questionnaire; it would require collaborative design, motivation, and 'buy-in' from the staff at the clinic to obtain the best possible information. Pilot studies such as this one may be a motivating factor for the staff to comply with the research if they are aware of the potential benefits to survivors.

Future research might also seek to link HIV status and survivor's case files to explore relationships between HIV and survivor/perpetrator variables.

A study in North Carolina, USA, found that 50% of victims of sexual violence had not received any treatment after being attacked, as they had not reported the incident (Lewis, 2004). This figure may well reflect the extent of under-reporting in this country too. Statistics suggest that there is reduced help-seeking behaviour amongst women in South Africa (Human Rights Watch, 1997; Jewkes et al., 2002) for various reasons. However, help-seeking behaviour is skewed (Eiraldi, Mazzuca, Clarke & Power, 2006; Morrison, Luchok, Richter & Parra-Medina, 2006) which means that certain types of people are more likely to report abuse than others. This sample was based on self-reported rape, implying only certain types of women actually reported to the Crisis Centre. The data in this study may therefore not be representative of all women in South Africa, but it is hoped that it will contribute to a broader knowledge base and form a basis for further study. At the very least the findings may be generalizable to those women who report rape in South Africa.

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Frequencies Victim age <= 15 yrs

Statistics

Victim age

N	Valid	132
	Missing	0
Std. Deviation		1.329
Variance		1.767

Victim age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	7	1	.8	.8	.8
	8	1	.8	.8	1.5
	10	2	1.5	1.5	3.0
	11	3	2.3	2.3	5.3
	12	3	2.3	2.3	7.6
	13	16	12.1	12.1	19.7
	14	46	34.8	34.8	54.5
	15	60	45.5	45.5	100.0
	Total	132	100	100.0	

Frequencies Victim age 16 - 25 yrs

Statistics

Victim age

N	Valid	360
	Missing	0
Std. Deviation		2.805
Variance		7.871

Victim age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	16	68	18.9	18.9	18.9
	17	56	15.6	15.6	34.4
	18	43	11.9	11.9	46.4
	19	34	9.4	9.4	55.8
	20	43	11.9	11.9	67.8
	21	34	9.4	9.4	77.2
	22	22	6.1	6.1	83.3
	23	18	5.0	5.0	88.3
	24	17	4.7	4.7	93.1
	25	25	6.9	6.9	100.0
	Total	360	100.0	100.0	

Frequencies Victim age 36 - 45 yrs

Statistics

Victim age

N	Valid	53
	Missing	0
Std. Deviation		2.589
Variance		6.701

Victim age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	36	8	15.1	15.1	15.1
	37	8	15.1	15.1	30.2
	38	7	13.2	13.2	43.4
	39	7	13.2	13.2	56.6
	40	5	9.4	9.4	66.0
	41	4	7.5	7.5	73.6
	42	8	15.1	15.1	88.7
	43	1	1.9	1.9	90.6
	44	4	7.5	7.5	98.1
	45	1	1.9	1.9	100.0
	Total	53	100.0	100.0	

Frequencies Victim age 46 - 55 yrs

Statistics

Victim age

N	Valid	23
	Missing	0
Std. Deviation		2.201
Variance		4.846

Victim age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	46	4	17.4	17.4	17.4
	47	3	13.0	13.0	30.4
	48	3	13.0	13.0	43.5
	49	6	26.1	26.1	69.6
	50	1	4.3	4.3	73.9
	51	3	13.0	13.0	87.0
	52	2	8.7	8.7	95.7
	54	1	4.3	4.3	100.0
	Total	23	100.0	100.0	

Frequencies Victim age 56 > years

Statistics

Victim age

N	Valid	9
	Missing	0
Std. Deviation		11.588
Variance		134.278

Victim age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	56	1	11.1	11.1	11.1
	59	2	22.2	22.2	33.3
	60	1	11.1	11.1	44.4
	63	1	11.1	11.1	55.6
	66	1	11.1	11.1	66.7
	71	2	22.2	22.2	88.9
	94	1	11.1	11.1	100.0
	Total	9	100.0	100.0	

National Antiretroviral Treatment Guidelines

First Edition, 2004

SECTION 5: POST-EXPOSURE PROPHYLAXIS (PEP)

Prophylaxis after occupational exposure to HIV

Introduction

Health care workers have a low but measurable risk of HIV infection after accidental exposure to infected blood or body fluid.

Compliance with infection control recommendations in handling sharps is the mainstay in the prevention of occupational HIV infection. Additional prevention strategies now include post-exposure prophylaxis with ART.

Risk of infection

Factors that increase the risk of sero-conversion include:

- Exposure to large inoculum of infected blood indicated by:
  - a deep injury
  - visible blood on device
  - procedures involving needles
- Source patient with terminal HIV infection

When to commence treatment

Treatment has to commence as soon as possible within 1 to 2 hours of exposure – **the sooner the better.**

The HIV status of the injured person needs to be known as initiating HIV prophylaxis in an infected person could endanger their future treatment options. This is because dual therapy could lead to resistance.

In situations where there is a high suspicion that the patient may be in the window period, consider HIV PCR testing. Starter pack prophylaxis should also be provided.

For further information, consult the national guidelines on "Management of Occupational Exposure to HIV".

Table 24: Recommendations for post-exposure prophylaxis (PEP) after occupational exposure

This includes blood, CSF, semen, vaginal secretions and synovial/pleural/pericardialperitoneal/amniotic fluid from HIV sero-positive patients.

Exposure	HIV status of source patient		
	Unknown	Positive	High risk*
Intact skin	No PEP	No PEP	No PEP
Mucosal splash/ non-intact skin	Consider 2-drug regimen	Recommend 2-drug regimen	Recommend 2-drug regimen
Percutaneous (sharps)	Recommend 2-drug regimen	Recommend 2-drug regimen	Recommend 3-drug regimen
Percutaneous (needle in vessel or deep injury)	Recommend 2-drug regimen	Recommend 3-drug regimen	Recommend 3-drug regimen

* See text for definition of high risk exposures

Table 25: Recommended PEP drug regimen

Drug	Dose	Frequency	Duration
Zidovudine (AZT) Lamivudine (3TC)	300 mg 150 mg	12 hourly	28 days
Lopinavir/ritonavir in cases of high exposure	400 mg/100 mg	12 hourly	28 days

POST-EXPOSURE PROPHYLAXIS (PEP)

Monitoring after occupational exposure

- Prophylaxis must be given for 28 days.
- Following HIV exposure, there is a need for psycho-social support.
- Laboratory monitoring is done to exclude acquisition of HIV infection and, for those given PEP, to monitor toxicity.
- Health care workers should be tested for HIV infection at the time of the exposure, and again at 6 weeks, 3 months and 6 months.

Prophylaxis after sexual assault

Prevention of the transmission of the Human Immunodeficiency Virus (HIV) in men and women who have been raped/sexually assaulted

- All women and men, aged 14 years and older, presenting to a health facility after being raped, should be counselled by the examining health care worker about the potential risks of HIV transmission post-rape.
- Younger children need to be managed at specialised sites where there is the expertise in dealing with traumatised children and the prescription of ART.
- The following points should be covered in the counselling:
  - The risk of transmission is not known, but it exists.
  - It is important to know the victim's HIV status prior to using any ART. This is becuase using AZT and 3TC in an HIV-positive patient is not adequate therapy. It may also lead to viral resistance.
  - It is the patient's choice to have immediate HIV testing or, if she/he prefers, this could be delayed until 72 hours post-examination visit. Management guidelines on sexual assault provides for a 3-day starter pack for those who prefer not to test immediately, or those that are not ready to receive results immediately. Getting patients back after three days might present with logistical problems, especially if they have to return at Week 1 for other results or to revisit VCT.

  - Patients presenting after 72 hours should be counselled about the possible risk of infection and the possibility of them transmitting infection during sero-conversion. They should be advised to return at 6 weeks and 3 months post-rape for voluntary confidential counselling and HIV testing. Patients who request prophylaxis at this stage, should be advised that there is not enough scientific evidence that the use of AZT (and 3TC) delayed this long after the rape, will have any impact on preventing HIV transmission.
  - The patient should be made aware that the efficacy of AZT prophylaxis is still under study. The drug itself is not yet licensed for use in post-rape prophylaxis.
- All women and men, aged 14 years and older, presenting to a health facility within 72 hours of being raped, should be offered AZT and 3TC to prevent HIV transmission.
- A third drug, lopinavir/ritonavir 400/100 mg 12 hourly, added to the above, is recommended in severe cases as follows:
  - where there have been multiple perpetrators
  - anal penetration
  - obvious trauma to the genital areas
  - known HIV positivity of one of the perpetrators (not enough scientific evidence exists to support the three-drug regimen, but it is considered best practice in these circumstances).
- The treatment is AZT 300 mg bd for a period of 28 days, plus 150 mg 3TC bd for the same time period.
  - Patients should be given a week supply of AZT and 3TC. They should also be given a date to return within a week for reassessment, for ongoing counselling, and to review the test results (except the rapid HIV or to obtain the confirmatory ELISA, where positive).

POST-EXPOSURE PROPHYLAXIS (PEP)

- For those patients who cannot return for their one-week assessment due to logistical or economic reasons, then a month's treatment supply, with an appointment date, should be given. This may be particularly relevant outside of the metropolitan areas.
- Ideally all patients should be seen one week post-rape to obtain results of all blood tests and to evaluate her/his condition. The remainder of the drugs should be given at this visit (i.e. a 3-week supply).
- The next visit should be at 6 weeks, and then 3 months and 6 months after the rape. HIV testing should be performed at each visit.

Patients who are either known to be HIV positive, or found to be HIV positive, should not be offered prophylaxis. They should be referred to an appropriate health care clinic for long-term management of their HIV infection.

The prophylaxis regimen against HIV transmission recommended by the National Department of Health will be reviewed periodically in light of any new information on HIV transmission and appropriate prophylaxis.

Routine testing with a full blood count and liver enzymes for patients on AZT and 3TC is not recommended for such a short duration of therapy. Any blood tests should be performed according to patient's condition.

Relative contra-indications to the use of AZT include significant renal or liver impairment and severe anaemia (Hb <6 g). Where in doubt about the use of AZT in individual patients, contact your local physician or hospital for advice.

It is strongly suggested that AZT and 3TC be administered only in the context of using the comprehensive rape protocol.

It is also strongly suggested that the implementation of AZT and 3TC for post-rape prophylaxis should be carefully monitored and evaluated.

Figure 8: PEP after sexual assault