

# **A Pilot Investigation into the Phenomenon of Murder-Suicide in Durban, KwaZulu Natal**

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## **Declaration**

I declare that the contents of this thesis, unless otherwise specified, represent my own work.

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April 2003

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## ABSTRACT

Research on murder-suicide within the South African context has been limited with the last published study in 1992 (Roos, Beyers, & Visser, 1992). This particular study investigated the phenomenon of murder-suicide in the city of Durban using techniques previously applied in a broad range of international studies (Berman, 1979; Cooper & Eaves, 1996; Rosenbaum, 1990).

The study served as a pilot for a broader national study. The aim of this pilot study was to investigate the incidence of murder-suicide in the sample and to generate demographic profiles of perpetrators and victims. It was hoped that the results from this study would pioneer the development of accurate base rates of murder-suicide in South Africa as there are currently no statistics of South African murder-suicide rates or characteristics.

The sample consisted of 21 murder-suicide cases with 43 individuals in total having died from the murder-suicide events. The sample covered all murder-suicides in the Durban Metro area over the years 2000 and 2001. A Durban Metro Murder-Suicide Incidence Form was used to collect the data from post mortem examination reports at Gale Street Mortuary. Corresponding police reports where available substantiated this data.

The incident rate of murder-suicide in Durban over the two-year period was found to be higher than the international average. This may be attributed to the violent social context in which the study took place. The reliability of this finding would be influenced by the small sample size. Typical profiles of perpetrators and victims were generated. The typical profile of a perpetrator was found to be a Black male aged 32 years with a secondary school education and currently unemployed or working in the police or security sector. He was typically be the boyfriend or spouse of the victim and committed the homicide and suicide using a firearm. The typical profile of a victim was a Black female aged 26 years with at least a secondary school education and currently unemployed. She was typically the spouse or girlfriend of the perpetrator. Her death would usually be attributed to multiple gunshot wounds to the head or chest. The findings suggest that Durban's murder-suicides profiles follow similar patterns to those observed internationally.

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**Appendix B** Murder-Suicide data collection database

## CHAPTER 1

### INTRODUCTION

This chapter is intended to provide as an introduction and rationale to the study of murder-suicide within the South African context. An overview of the sequence of the study will also be provided.

There is no standard operational definition for murder-suicide. The term *murder-suicide* itself has been referred to as *victim-precipitated homicide* (Wolfgang, 1959), *dyadic death* (Berman, 1979; Milroy, 1993), *family murder* (Olivier et al., 1991) and *homicide-suicide* (Easteal, 1994; Hillbrand, 2001; Morton, Runyan, Moracco & Butts, 1998).

The term *murder-suicide* has been used in various studies (Hanzlick & Koponen, 1994; Nock & Marzuk, 1999; Rosenbaum, 1990). *Murder* is defined as “the unlawful premeditated killing of one human being by another” (“New Oxford Dictionary of English,” 1998, p. 1218). Unlike the terms *dyadic death*, *homicide-suicide* and *victim-precipitated homicide*, *murder-suicide* clarifies that it was the perpetrator’s decision to intentionally kill the victim or victims. Unlike the term *family murder*, it does not limit the event to a murder within the family. It is generally understood that a murder-suicide has occurred when a homicide or homicides have been committed and soon after, a suicide is committed or attempted by the perpetrator.

This study aims to investigate characteristics and patterns of murder-suicide in South Africa with the purpose of generating demographic profiles of victims and perpetrators. The study was conducted in the city of Durban, KwaZulu-Natal. This particular study is a pilot for a broader national study. The aim of this pilot is to pioneer the foundation of the establishment of national base rates on murder-suicide. Until now, there has been very little research conducted in South Africa on the subject of murder-suicide, the last published study being in 1992 (Roos, Beyers, & Visser, 1992). There is therefore a need for current research that has the long-term aim of establishing accurate base rates that can be utilised in future research.

Chapters two to five will present an overview of the literature on murder-suicide research. Chapter two will provide a detailed orientation to the study of murder-suicide. Theoretical

orientations of murder-suicide will be discussed in chapter three. Chapter four will examine current explanations for the aetiology of murder-suicide. Chapter five will focus on specific demographic factors of previous studies.

The broad aims of the national study as well as the specific aims of this pilot study will be discussed in chapter six. Chapter seven will describe the methodology used in this study with regards to how it is able to reach the aims outlined in the previous chapter.

The results from this study will be presented in chapter eight followed by a discussion of these findings in chapter nine. This chapter will also discuss limitations that arose during the data collection process.

Chapter 10 will discuss the overall conclusions of the study after taking the limitations and recommendations into consideration.

## CHAPTER 2

### ORIENTATION TO THE STUDY OF MURDER-SUICIDE

#### 2.1 Introduction

##### 2.1.1 Operational Definition of Murder-Suicide

As mentioned in chapter one, a number of definitions for the phenomena and variations of murder-suicide have been used. For the purpose of this study the definition by Marzuk, Tardiff and Hirsch (1992) will be used. Marzuk et al. (1992) defined that a murder-suicide had occurred when a person committed homicide and subsequently committed suicide within one week of the homicide.

Most cases have been characterised by a spousal or love relationship between the perpetrator and victim (Cohen, Llorente & Eisdorfer, 1998; Marzuk et al., 1992), and this has usually occurred within a family setting. Nock and Marzuk (1999) reported that studies showed that murder-suicide between spouses or lovers represented one half to three quarters of all murder-suicides in the United States (Allen, 1983; Currens et al., 1991; Dorpat, 1966; all in Palmer & Humphrey, 1980).

Other typologies include filicide-suicide where the perpetrator, usually the parent kills their child or children before committing suicide, familicide-suicide where one member of the family, typically the senior male, kills himself and every member of the family, including the spouse, and lastly, extra-familial murder-suicide where disgruntled individuals would kill employers, physicians etc. before committing suicide (Marzuk et al., 1992).

##### 2.1.2 Difficulties in Researching Murder-Suicide

Murder-suicides are relatively uncommon events and due to their nature cannot lend themselves to thorough investigation with all involved parties. Murder-suicides often occur suddenly, all parties directly involved are dead, and there is little clinical documentation (Nock & Marzuk, 1999). Publications of large sample groups provide less descriptive information, particularly with regard to diagnostic findings, as none of the involved parties are available for psychological assessment (Felthous & Hempel, 1995).

In order to accumulate sufficiently large samples, most studies are retrospective and tend to be conducted over a long time span. Some studies have examined press reports of murder-suicide in an attempt to generate patterns and theories (Danson & Soothill, 1996; Graser, 1978; Osborne, 2001). Many studies have relied on coroner, medical or police reports (Berman, 1979; Cooper & Eaves, 1996; Goldney, 1997; Morton et al., 1998). Only a few studies have used more qualitative methods of interviewing social workers or surviving family members or have reviewed hospital methods (Marzuk et al., 1992; Olivier et al., 1991).

The psychiatric and medical literature on murder-suicide is sparse. The primary reason for this is that most investigations of murder-suicide are conducted by police, coroners or the courts. There is little or no input from psychiatric, psychological or medical personnel unless it is for a specific research purpose. Furthermore, in most cases, both victim and perpetrator are dead and as such there is no trial or public concern and most importantly no interest for medical and psychiatric personnel (Rosenbaum, 1990).

South African criminal law does not classify murder-suicide as a separate phenomenon. A murder-suicide would be classified as a criminal act of murder followed by a separate case for the suicide (Inquest clerk, Pietermaritzburg Magistrate Court, March 2001). The significance of this is that unless the suicide occurs within a day of the murder, and within the same police precinct, there is increasing probability that the deaths will not be reported as a murder-suicide but rather as an unrelated murder and a separate suicide.

## **2.2 Review of Previous Studies**

### **2.2.1 International Research**

For the purpose of this study, the international studies will usually be grouped into three categories. The “Western” studies consist of research that has been conducted in the United Kingdom (UK), Europe, the United States of America (USA), Canada and Australia. A single Asian study involves research carried out in Japan. The only known African studies have been completed in South Africa. For the purpose of this study, differences between those cultures and regions assumed to be “Western” were relatively minor in relation to those described as “Asian” or “African”. Critical analysis of these assumptions is beyond the scope of the present study.

The earliest studies of murder-suicide were Western studies conducted by Wolfgang, (1959), West (1967, in Felthous & Hempel, 1995) and Goldney (1977). A Japanese (Sakuto, 1995) study later added to the literature as did South African studies that will be discussed further below.

Many international studies have researched murder-suicides retrospectively and demographically. Some studies focussed specifically on one or two variables. Research in New South Wales, Australia (Wallace, 1986) and Canada (Silverman & Mukherjee, 1987, as cited in Eastel, 1994) concentrated on sex roles as well the relationship between the perpetrator and victim.

Various other international studies such as those in Portugal (Ferreira de Castro, Pimenta, & Martins, 1991), Canada (Buteau, Lesage, & Kiely, 1993) and Japan (Sakuto, 1995) have chosen to include a number of demographic categories in their study such as age, race, sex distribution, alcohol use and method of death.

Certain other studies focussed on the role of depression or other psychopathology as present in perpetrators of murder-suicides before their death (Felthous & Hempel, 1995; Malmquist, 1995). Research conducted in Switzerland by Haenel et al. (2000) looked at depression, borderline personality disorders and narcissistic personality disorders in combination with stressors such as physical illness, isolation and social losses.

### **2.2.2 South African Research**

Prior to 1980, murder-suicide was a relatively unknown phenomenon in South Africa. It was only after 1988 that the Bureau for Statistics began to differentiate between murder-suicide, suicide and homicide (du Toit, 1990). It is therefore difficult to trace whether or not these types of murders have increased since 1980, or how the demographic characteristics may have changed.

In 1985, a symposium on family violence was held in Pretoria. Following this symposium, a team was formed in 1988 to investigate the incidence of murder-suicide in South Africa (Olivier et al., 1991). Commissioned by the Human Sciences Research Council (HSRC), this team carried out 11 case studies and published the results in 1991. Prior to this, the clinical files of six family murderers who had been referred to a psychiatric hospital (Weskoppies)



were examined (Roos et al., 1992). The six case studies at Weskoppies Hospital were added to the HSRC study. To date, these 17 cases comprise the most extensive research carried out on murder-suicides in a South African context.

The HSRC's study noted that the media portrayed the phenomenon of murder-suicide to affect mainly Afrikaans-speaking white families (Olivier et al., 1991). An analysis of recent media reports (Osborne, 2001) suggested that Black murder-suicides may be on the increase. The media also tends to emphasize police involvement in murder-suicides. Olivier reported that family murders occurred within all communities of South Africa but felt that they were unreported in Black communities. She reported that the White population received more media coverage and that the press tended to ignore the cases where family murders occurred in Black families ("Family Murder," 1993). It has also been suggested that due to under-policing as well as under-reporting in Black and Coloured communities, murder-suicides in these race groups were unheard of in the past ("Anatomy of Family Murder," 2000).

Most investigations completed in South Africa have been based on newspaper reports, which have at times been supplemented by interviews with neighbours and next of kin (du Toit, 1990, in Olivier et al, 1991; Graser, 1987, in Olivier et al., 1991; Osborne, 2001). There have been no retrospective studies aimed at investigating the incidence of demographic categories in order to establish South African base rates. This particular study will be the first of its kind in South Africa to utilize a popular international methodology to achieve this aim. It will not make use of methods such as the review of press reports or qualitative interviews to better understand the concept of murder-suicide. The methodology will be explained in detail in a later section.

## **2.3 Incidence of Murder-Suicide in the General Population**

### **2.3.1 International Rates**

Murder-suicide is relatively rare. Marzuk et al. (1992) estimated that about 1000 to 1500 deaths related to murder-suicide occur nationally in the USA per year. Murder-suicide occurs at a constant rate in most populations averaging about 0.22 per 100 000 population (Abramsky & Helfman, 1999). Coid (1983, in Abramsky & Helfman, 1999) found that this rate for murder-suicide reflects the similar prevalence of mental illness in all countries thereby suggesting that those who committed murder-suicide were mentally ill.

Various studies (Buteau et al., 1993; Rosenbaum, 1990; West, 1965, in Easteal, 1994) investigated murder-suicide as a comparison with or as a proportion of all homicides in the region. No known studies have researched murder-suicide as a proportion of all suicides. This seems to suggest that the researchers perceive murder-suicide as more alike to murder than to suicide.

It has been reported that as the rate of homicide increases, so the proportion of murder-suicide declines (Abramsky & Helfman, 1999). For example, a country such as the USA has a high homicide rate but a proportionally low murder-suicide (4%) rate. In countries such as Denmark, where there is a low homicide rate, the percentage of murder-suicides is relatively high (42%). These research findings suggest that murder-suicide is a phenomenon that is very different to homicide.

Landau (1975, in Buteau et al., 1993) compared international rates of homicide, suicide, and murder-suicide. He found an inverse relationship between homicide and suicide. A similar relationship existed between homicide and murder-suicide whereas there was a direct relationship between suicide and murder-suicide. Palmer and Humphrey (1980, in Buteau et al., 1993) and Easteal (1994) concluded that the traits of the individuals who committed murder-suicide were more likened to suicide than homicide.

### **2.3.2 South African Rates**

Within South Africa, there are no known differentiated statistics for murder-suicides and it is therefore unclear whether murder-suicide has increased over the years (Olivier, 1988). There has thus been no means of obtaining statistics for the incidence of murder-suicide within the general population as there are no base rates for murder-suicide in South Africa.

#### **2.3.2.1 Statistics of Unnatural Deaths in South Africa**

The National Injury Mortality Surveillance System (NIMSS) is an ongoing system for epidemiological surveillance of fatal injuries. In its first report in 1999, 14 829 fatal injuries were registered at 10 urban-based mortuaries in five provinces. This is approximately 25% of the estimated 60 000 fatal injuries occurring for the whole year (Butchart, 2000).

South Africa has a murder rate of about 70 per 100 000 population versus the international average of about 5.5 per 100 000. This is second only to Columbia (Harris, Sukhai & Peden,

2000). A pilot study carried out for the NIMSS between January and March 1999 at Gale Street mortuary in Durban showed that homicide accounted for over 50% of all non-natural autopsies at this mortuary. Suicide accounted for 6.3% (Harris et al., 2000).

Flisher, Parry, Bradshaw and Juritz (1997, in Wassenaar, Pillay, Descoins, Goltman & Naidoo, 2000) found suicide rates to range between various race groups. They found that Black suicide rates were far lower than White suicide rates. Additional South African research (Lester, 1998, in Wassenaar et al., 2000) was carried out in the late seventies and early eighties. Inefficient recording practices as well as preferential services and structures to specific race groups are likely to have skewed the research results.

A Pietermaritzburg suicide study reported suicide prevalence between 1982 and 1996 in the region to be at a rate of about 14 per 100 000 population. The mean rate for the Black population was 13.48, 15.5 for the White population and 14.9 per 100 000 for Indian population (Wassenaar et al., 2000). This is slightly higher than the international rate of suicide which is about 11 to 12 per 100 000 population (Maris, Berman & Silverman, 2000).

These statistics discussed above show that both homicide and suicide in South Africa are above the international norm.

## **2.4 Summary**

Murder-suicide is a relatively rare phenomenon. Due to the complexity of researching it, limited studies have been conducted over the years. This is particularly pertinent in South Africa where there have been very few studies, deeming it impossible to observe how this country compares on an international level with regards to murder-suicide statistics and characteristics. Statistics on homicide and suicide indicate that South Africa is above the international average. The relationship between murder-suicide and homicide or suicide within South Africa is currently unknown. This quantitative study is an attempt to improve South African information collection on aspects related to murder-suicide.

In order to evaluate the results of South African research against other countries, a thorough understanding of the event of murder-suicide is needed. The following chapter will therefore form a basis for the conceptualisation of the murder-suicide concept.

## CHAPTER 3

### THEORETICAL ORIENTATION

#### 3.1 Overlap Between Homicide and Suicide

“Once a clinician’s interest is aroused sufficiently to put direct questions on the matter of murderous aggression [to depressed patients] it becomes apparent that many such patients have experienced homicidal thoughts which they have been reluctant to express” (Blatt cited in Roos & Bodemer, 1988, p.122).

There is general consensus that there is a relationship between homicide and suicide. The German word for suicide is *selbstmord*, meaning “self-murder”, as does the Afrikaans word *selfmoord*. Murder can be viewed as a projected and acted-out suicide (Bromberg, 1951, in Ferreira de Castro et al., 1991), whereas suicide is often believed to be aggression against others turned in towards the self (Freud, 1951; Menninger, 1938; Capstick, 1970; all in Ferreira de Castro et al., 1991). It is also proposed that the wish to kill is one of the most important components of the act of suicide (Menninger, 1938, in Ferreira de Castro et al., 1991), or that the victims of a homicidal attack are prone to suicide and would encourage their own death by the offender (Wolfgang, 1958, in Ferreira de Castro et al., 1991).

Freud (1961, in Danto, 1978) understood murder and suicide by looking at his concepts of the life instinct called Eros, and the death instinct called Thanatos. He named the portion of the death instinct directed toward the outside world, aggression. He felt that this protected the individual from self-destruction. If the expression of aggression were in some way thwarted, a tendency to self-destruction would be enhanced. This explanation makes it apparent that suicidal and homicidal impulses operate with a thin dividing line, and that dependent on the external factor, the force of aggression could be pulled in the direction of either homicide or suicide.

Menninger (1938, in Danto, 1978) theorised that no suicide was completed unless there was a wish to kill, a wish to be killed, and a wish to die. He proposed that suicide was a result of not displaying anger toward an object because the object attacked was more powerful than the attacker. Such an attack was inhibited because it might have been someone the person loved

or alternatively, it may have been a fear of the consequences. A person might commit murder if he or she was able to make an atonement in some direction.

It has been postulated that some individuals commit suicide by provoking others to kill them (Wolfgang, 1959). He proposed that suicide could be seen as the desire to kill someone who has angered the individual when this feeling was displaced onto the self (Wolfgang, 1959). Suicide then occurred when the pressure from the superego became unbearable. The suicide murdered the introjected object and abolished the guilt for wanting to murder the other. Maltzberger (1999) similarly theorised that at the heart of suicide lay an unconscious identification of the self with another person who was both loved and hated therefore making it possible to treat oneself or part of oneself, typically one's disavowed body, as alien or an enemy.

Wolfgang (1959) further hypothesised that aggressive impulses were to be found within the same individual and viewed the suicide of a depressed person as a turning of sadism against the person himself. It has been estimated that at least 30% of violent people have a history of self-destructive behaviour, whereas nearly 20% of suicidal persons have a history of violence directed at others (van Praag, Plutchik & Apter, 1990, in Nock and Marzuk, 1999). Aggression toward the self could easily spill over into murderous actions toward others or that hostility directed outward could reverse itself, causing self-destructive behaviour (Abramsky & Helfman, 1999).

Murder-suicide is often considered as an extended suicide because it is seen as more alike to suicide than homicide. In considering murder followed by suicide with depressive illness, a component of altruism has been invoked, and from this the concept of "extended suicide" has arisen. The victim is spared the hardship of life to be reunited with the perpetrator in a better after-life (Goldney, 1977). West (1965, in Eastal, 1994) described the murder-suicide as more like suicide than homicide because the victim was often murdered solely as part of the murderer's ultimate aim: his or her own self-destruction.

It is clear from the above review of the literature that there is a theoretical overlap between murder, suicide and murder-suicide. Varying degrees of aggression appear to be at the source of each of these phenomena. It can be understood that the intrapsychic structures of an individual will to a large extent decide how this aggression is released. The following section

discusses in further detail how this aggression, from a psychodynamic orientation, results in the act of murder-suicide. Additionally, a brief systemic explanation of murder-suicide will briefly be presented.

## **3.2 Theoretical Frameworks**

In most cases, the literature on murder-suicide reflects a psychodynamic framework (Berman, 1979; Nock & Marzuk, 1999; Rosenbaum, 1990). Only rarely has a systemic perspective been used (Olivier et al., 1991). No studies on murder-suicide were found where alternative theoretical perspectives have been used. For this reason, murder-suicide will be primarily discussed from a psychodynamic perspective. This will be followed by a brief discussion of the available systemic literature on murder-suicide.

### **3.2.1 Psychodynamic Theories**

#### **3.2.1.1 Significance of Murder-Suicide for the Perpetrator**

Murder-suicide has been seen as a means of escape from one's conscience where killing and then committing suicide appears to provide a means of conquering a more powerful object. This is viewed as both punishment and as a way of proclaiming ultimate power over life for both victim and self (Danto, 1978). The meaning of suicide then takes on another dimension as a means of achieving a greater sense of self or power.

The concept of murder-suicide from a psychodynamic perspective will be examined in three sections. The defense mechanisms used in murder-suicide will firstly be examined, followed by the typical maladaptive patterns of the relationship between the victim and perpetrator and thirdly the concept of a triggering or traumatic event.

#### **3.2.1.2 Defense Mechanisms**

Many theorists have understood murder-suicide by the use of the defenses of splitting and projection. Selkin (1976, in Berman, 1979) advocated that the principal dynamic in murder-suicide was the "rescue fantasy". This utilised the primitive defenses of splitting and projection. He explained that the self was split: the bad self was projected onto the victim, while the good self was projected onto children who were to be rescued.

The perpetrator, male or female, initially projected blame onto the offending party while psychologically denying any responsibility for the problems. This would be followed by an

incubation period during which tension escalated and virtually all psychic energy was focused on a traumatic event such as the termination of a relationship and the devastation it had caused the perpetrator. During this stage, primitive splitting would be used as the dominant defense. The offending party would be seen as all bad, as malignant and without redemption (Abramsky & Helfman, 1999).

The concept of catathymic states has been used as to explain murder-suicide events. Malmquist (1995) explained that in this state a person felt that a violent act was the only solution to relieve a state of chronic emotional tension. A prolonged conflict would finally give way to an act of violence, following which there would be a state of relief. Revitch and Schlesinger (1981, in Malmquist, 1995) noted that in catathymic violence there was an incubation period of depression lasting for days or months. This was accompanied by a disturbance in formal thinking as part of an obsessional brooding about murder or suicide. After this brief incubation period of depression, there was overwhelming affect lasting only a few minutes that erupted in violence. Meloy (1992, in Malmquist, 1995) viewed catathymic homicides as occurring with a borderline or psychotic personality organization.

From an object relational perspective, the central defense would be seen as projection, where the perpetrator projected malevolent characteristics onto the potential victim. The rupture of attachments was one of the key factors operating in the psychopathology of the severely depressed person. This person may have been struggling to maintain attachments by delusional formation about their own worthlessness until anger and rage overwhelmed them (Malmquist, 1995).

It is evident from the literature that primitive defenses of splitting and projection are used by the perpetrators of murder-suicide. Rather than focussing solely on the perpetrator's role in murder-suicide, the following section will discuss patterns of interrelating typically found between the perpetrator and the victim.

### **3.2.1.3 Maladaptive Relationships**

Wolfgang's (1959, in Abramsky & Helfman, 1999) concept of "victim-precipitated murder" explicitly places some blame on the victim for the murder-suicide act. Wolfgang suggested that victims were often provocative and viewed the perpetrator and victim as pathologically

aggressive. This perspective views the dyad or family unit as pathological rather than placing the full blame on the perpetrator.

Murder-suicide has been hypothesised to occur in mutually dependent relationships because the perpetrator is afraid of killing himself and afraid of dying. It has been proposed that he therefore murders someone else (Abrahamsen, 1973, in Danto, 1978). Abrahamsen viewed murder as a process that moved from torture at one end to masochism at the other. He understood this continuum to be the reason why the murderer needed to kill someone else before committing suicide. Prior to the murder-suicide event, Danto argued that the women involved in the relationship sought beatings in order to maintain marital equilibrium and the man who was usually passive or weak, would explode violently after drinking as a means of asserting his power. The men seldom sought help for their psychological problems, either from fear of retaliation or because of their own unconscious suicide wish.

Berman (1979) looked at evidence for acute ego regression and chronic object fusion in cases of murder-suicide. He described the *erotic-aggressive* type wherein the relationship roles of offender and victim appeared to be mutually interchangeable. In this type of relationship, both partners depended on and abused each other for affection. There was a display of chronic love-hate patterns, omnipotent expectations, narcissistic demands, and definitions of love that were rigidly posed.

He did seem to view the perpetrator as more pathologically disturbed than the victim. He saw separations, threats and accusations of infidelity to be common, and that when control was lost, the perpetrator experienced both the source of nurturance and the object of nurturance as destroyed (Berman, 1979). The victims were viewed as narcissistic extensions of the perpetrator. Relationship separations could thus be viewed as deep narcissistic wounds leaving the perpetrator filled with anxiety and tension.

In terms of the object relations, murder-suicide has been understood as a persistence of ambivalent symbiotic craving for the good-bad introjected mother or mother attributes, with subsequent displacement toward the future partner and object of a love-hate relationship (Palermo, 1994). This can be further explained by drawing on Kohut's (1971, in Palermo, 1994) premise that the archaic transitional self-object is still in its original form at an unconscious level in the psychological self of the aggressor. It would then be logical to think



that the aggressor in murder-suicide is driven by a pathological attachment toward the mother-partner in order to maintain narcissistic homeostasis.

This ambivalence and shifting moods in the perpetrator's interpersonal love relationship can be understood on the basis of Mahler's (1972, in Palermo, 1994) good-bad introjects and her suggested theory of the child's incapacity at times to establish his own autonomy from his mother when traumatized in his early relationship with her. In Mahler's approach to separation and individuation, object constance is tenuous and difficult and it is therefore possible for a person to regress to a symbiotic level.

Palermo (1994) used these theories of Kohut (1971, in Palermo, 1994) and Mahler (1972, in Palermo, 1994) to explain the aggressor's strong dependency on his partner. He incorporated Klein's (1935, in Palermo, 1994) theory that the depressive and paranoid-schizoid positions were basic ingredients of early psychological life, a part of the child's ambivalent relationship with the mother's breast. He explained murder-suicide as a behavioural, destructive explosion that had its origin in a conflictual relationship of early infancy. This was possibly due to the absence of a continuous, consistent and supportive presence of a loving maternal figure. Palermo then suggested that during a stressful interpersonal relationship, the aggressor was driven by the reawakening of a semi-dormant, ambivalent, narcissistic, archaic self, as well as by a tendency to paranoia, depression and a continuous need for psychological homeostasis with his partner.

This homeostasis was achieved by the murder of his loved, hated and feared partner, who was remindful to him of his perception of his mother-figure. He subsequently killed himself out of desperation in a sense of guilt and loss, and with the belief that he could again be reunited with her in death (Palermo, 1994). The partner was viewed as the extended self and as an integral part of the murderer's present reality. This theory can be generalised to killings of entire families where the children are a further victim of this narcissistic self and are killed in a bid for homeostasis.

The process of identification can be used to further explain the concept of murder-suicide. The relationships between individuals can become so fused that killing intimates and oneself can be seen as an integral act (Malmquist, 1995). A common example is a post-partum

psychotic depression where a mother killed her infant and herself because she believed herself to be sparing the infant from having to live in a terrible world.

Abramsky and Helfman (1999) found that with murder-suicide between mothers and children, the children were probably perceived as an extension of the mother, who herself felt alone, unwanted or abandoned by a male. Selkin (1976, in Abramsky & Helfman, 1999) referred to the dynamic of “murder by proxy” when victims were chosen because they are identified with a primary target. The mother viewed her children as an extension of her own pain. The mother had an intimate self-object bond with her children where despondency in her life generalised to their lives as well.

Nock and Marzuk (1999) proposed that the perpetrator felt distanced from his or her spouse but was incapable of improving or leaving the relationship. The children may have been viewed as an extension of the mother. For this reason, killing the children represented the complete destruction of the relationship between the mother and the father.

South African studies have tended to examine murder-suicide cases termed as “family murders” from a systemic orientation whereas most international studies reviewed murder-suicide using a psychodynamic framework. For this reason, the structure of the relationships between victims and perpetrators has been explored from a systemic rather than intrapsychic perspective. It is clear from the following findings that issues of dependency and boundaries were problematic.

A review of the literature revealed that the family system was enmeshed and the boundaries of the family were closed to outsiders and a threat from the outside signified danger (de Jongh van Arkel, 1993). The marriage was characterised by diffusion rather than a patriarchal or matriarchal system with slightly more dominance in the spouse than in the murderer (de Jongh van Arkel, 1993).

Families involved in murder-suicide seemed to be isolated from religious systems, social activity systems and the macro system. The family had limited involvement with friends but was often over-involved with the extended family (de Jongh van Arkel, 1993).

#### **3.2.1.4 Triggering or Traumatic Event**

Various theorists explain murder-suicide as the culmination of a psychological and behavioural process (Abramsky & Helfman, 1999; Malmquist, 1995; Rosenbaum, 1990). This process seems to have occurred as a result of a regression in psychic functioning within the context of a maladaptive relationship.

Rosenbaum (1990) believed that the perpetrator was depressed prior to the event. He associated the depression with the termination of a relationship when the female partner left. The tragedy would be triggered when she informed her partner that she was leaving him or that she had another lover. The final confrontation was described as one with severe verbal and physical violence erupting in murder. This was then followed by a sudden suicide.

From a psychodynamic viewpoint, Rosenbaum (1990) explained that the depression could be viewed as a defense against the underlying aggressive and murderous impulses. If the “trigger” incident produced intense enough aggressive impulses, the depressive defense would be breached and the murderous impulse released. The perpetrator would then immediately realise that he or she had committed a murder. This in turn would lead to the return of the depressive defense (Klein, 1935, in Palermo, 1994) and suicide.

Malmquist (1995) proposed that the perpetrator initially experienced a psychotic depression. He looked at how this impacted on a person’s thinking in addition to their mood. He postulated that prior to the homicide, the thinking accompanying this psychotic depression was dominated by feelings of dejection, guilt and worthlessness. In order for the homicide to occur, the person would need to move beyond a state of sadness into a state of delusionality. He hypothesised that the individual progressively withdrew into a brooding state and that a dramatic interruption of this preoccupied state would mobilise energy and aggressive, even homicidal behaviours. He saw anger as central in mobilising the depressed person because it allowed for the externalisation of the self-hatred that had originally immobilised the individual.

It has been suggested that when the deep-seated guilt progressed to a delusional level, a violent or suffering fate was expected (Malmquist, 1995). Given a delusional basis of assessing oneself as worthless, however adverse the outcome was, seemed to be just to the individual. He understood that if a person’s belief was so strong that he or she felt beyond

redemption, to engage in murderous behaviour was then not unnatural or inconsistent. This action was then congruent with an internalised image of badness. The theme of punishing others could be seen as equivalent to punishing oneself as a measure of distributing justice (Malmquist, 1995).

Abramsky and Helfman (1999) also viewed the murder-suicide as a climax of a process. During the initial phase of the incubation period, the psyche of the perpetrator would be characterised by obsessive, compulsive preoccupations with the initial traumatic event. Paranoid ideation would then emerge, with the perpetrator misinterpreting or exaggerating events. It was during the late phases of incubation that the general decompensation such as temper outbursts would be observable in the perpetrator's day-to-day life. Substance abuse would be frequent, as well as depression and suicidal ideation. Abramsky and Helfman (1999) suggested that the later stages of incubation showed more behavioural changes clustered around a rehearsal for violent action. A behavioural trigger would be the final catalyst for the murder-suicide.

It is clear from the above that an event perceived to be traumatic by the perpetrator acts as a catalyst in the murder-suicide. The event results in a state of decompensation or regression rendering the individual's usual defenses inadequate. The two sections discussed above have looked at only the perpetrator's maladaptive psychic functioning. The following section will continue to examine murder-suicide from a psychodynamic orientation but in the context of a maladaptive relationship.

The above psychodynamic explanation for murder-suicide places importance on the primitive defense mechanisms of the individual and how these are likely to be activated during specific traumatic events. The theories also take into account that pathologies often lie within the dyad or family unit indicating that often both victim and perpetrator have problematic intrapsychic functioning. Although the pathology is usually greater within the perpetrator, the interplay between the individual's pathologies does increase the likelihood of an eruption of emotions in a highly emotional situation.

### 3.2.2 Systems Theory

Most research on murder-suicide uses psychodynamic explanations as a foundation for understanding this phenomenon. The literature on murder-suicide from a systemic orientation is limited and seems only to have been used as a framework for the South African studies.

Graser (1987, in Marchetti & Haasbroek, 1992) viewed the disintegration of the extended family as a major threat to a family where boundaries were undifferentiated. Kratcoski (1988, in Marchetti et al., 1992) used systems theory to explain how violence was characteristic of a particular family and was due to the intensity of emotional involvement or enmeshment between family members. He referred to Gelles's (1979, in Marchetti et al., 1992) exchange/social control theory of violence in the family. According to this theory, various "punishment and costs" relationships are developed in the family. When certain family members were perceived as not living up to the reciprocal agreement established, anger escalated and conflict and violence may have ensued.

Snyman (1989, in de Jongh van Arkel, 1992) postulated that the family system was denoted by a "stuck-togetherness" or enmeshment that had diffuse boundaries. This then resulted in a pattern of interdependence.

De Jongh van Arkel (1992) described the interaction between family members as symbiotic. This resulted in the family becoming emotionally isolated from the environment to such an extent that the external world could easily pose a threat (Marchetti et al., 1992).

These theories seem to focus predominantly on the boundaries between the family relationships. They analysed these relationships in the context of the concept of family murder rather than the more inclusive term of murder-suicide. Family murder has been defined as "the deliberate extermination of the existing system by a member of the family or the intention to exterminate the system" (Olivier et al., 1991, p.44). Incidents that did not involve family members were excluded. For the purpose of this study, all events where a person murders another and then kills him or herself soon afterwards are included.

Although theories discussing boundaries in family relationships are valuable to this study, they do not make allowance for the variations of relationships that occur in this sample under study. This is largely due to the differences between the operational definition of *murder-*

*suicide* and *family murder*. Furthermore, these theories do not provide for the analysis of intrapsychic patterns that occur across a variety of individuals and relationships.

### **3.3 Summary**

Many researchers have considered an overlap between murder and suicide, looking at how the desire to kill another or oneself is often intertwined. Research on murder-suicide has been predominantly examined from a psychodynamic framework and from a systemic orientation only within South Africa. The review of systemic theory as discussed above is sparse and is insufficient for a rigorous explanation and understanding of the concept of murder-suicide. On the other hand, there is a wealth of psychodynamic theories that attempt to elucidate the murder-suicide phenomenon. A psychodynamic basis will therefore be used to elaborate on some of the aetiology of murder-suicide. The following chapter will discuss some of the current explanations for murder-suicide that have arisen from the findings of previous studies as well as the hypotheses that were formed from these findings.

## CHAPTER 4

### CURRENT EXPLANATIONS FOR MURDER-SUICIDE

#### 4.1 Introduction

Murder-suicide can be viewed as the culmination of various socio-psychological factors that drive the perpetrator to the point where he or she takes the lives of others before committing suicide. The interaction between these various factors plays an important role in creating the climate for murder. Only very rarely can a particular factor be singled out as aetiological factor (Olivier, 1988).

The following section will look at the various aspects that have been postulated to contribute to murder suicide. These include intrapsychic factors, interpersonal factors and factors in the environment that are largely external to an individual's direct control. It is acknowledged that the factors discussed are not mutually exclusive and that some issues that will be discussed in the following chapter may also be considered to be influencing aspects. This chapter will discuss the current explanations of murder-suicide moving from factors considered largely internal to factors mostly external to the individual.

#### 4.2 Intrapsychic Factors: The Presence of Psychopathology

There are discrepancies in the reporting of the presence of psychopathology in the perpetrators of murder-suicide. Coid (1983, in Abramsky & Helfman, 1999) postulated that the relatively constant rate of murder-suicide internationally was due to the similar relatively constant rate of mental illness. It is hypothesized that variations in the findings of psychopathology in murder-suicide studies reflect the difficulty in identifying such illnesses once the individual is deceased.

Early Western studies of murder-suicide such as Cavan (1928, in Goldney, 1977) and Wolfgang (1958, in Goldney, 1977) reported only 1 out of 18 (5.6%), and 3 out of 24 (12.5%) offenders respectively to be "insane". West (1963, in Wolfgang, 1959) analysed murderer-suicide cases in England and Wales between 1946 and 1962. He reported that 45 of the 78 (57.7%) offenders he had studied showed "mental abnormality". West categorised this mental abnormality into 28 (35.9%) as suffering from depression, four (5.1%) with a

diagnosis of schizophrenia, two (2.6%) as having morbid jealousy, four (5.1%) as aggressive psychopaths, and seven (8.9%) with severe neurotic instability.

In Japan, Sakuto (1995) found that 56% of the perpetrators were suffering from a depressive state, 22% from schizophrenia and 22% he described as having an unknown psychiatric diagnosis.

More recent Western studies found that in 21% of the cases, the perpetrator had consulted mental health services in the year before the event. Psychopathology was noted in 67% of the cases, 46% cited depression and 23% substance abuse (Buteau et al., 1993). Cooper and Eaves (1996) found that during their information gathered from coroners, police, forensic and community mental health files, the ascription of “mental illness” was used conservatively. In most cases where this category was used, symptoms of acute or chronic psychosis were common. The researchers found that dysthymia or acute depression in reaction to a separation was not classified as “mental illness” as precipitants of murder-suicide cases (Cooper & Eaves, 1996). It appears that adjustment disorders would not have been included as categories of mental illness in this study. Out of 123 cases, Cooper and Eaves (1996) found statements suggesting adjustment disorders as well as reference to personality disorders were made of about 29 perpetrators in addition to the 18 (14%) individuals who were classified as mentally ill.

Having reviewed the general incidence of mental illness in murder-suicide above, findings of specific psychopathology will be examined in detail below. Two particular areas of pathology have been found to occur frequently in murder-suicide. The first is the Axis I major depressive disorder and the second is certain Axis II personality disorders and traits. Each will be discussed in terms of their incidence in studies and will be explained from a psychodynamic orientation.

#### **4.2.1 Depression**

In order to identify a history of depression in the deceased perpetrators, some early studies have chosen to look for a history of suicidal behaviour. West's early study (1965, in Easteal, 1994) found that there was a high incidence of prior suicide attempts among the perpetrators whereas Berman (1979, in Easteal, 1994) found that only 10% of offenders had suicidal histories.



West proposed that murder-suicide perpetrators resembled the usual profile of a suicide. He found that feelings of despair and hopelessness in the elderly ill, impulsive aggression in young people, and the inability to live with the discovery of financial or sexual deceits were among the contributing factors of murder-suicide. The results of his study showed that depressive disorders represented 36% of all cases (1965, in Marzuk et al., 1992).

The clinical data from coroners' reports in Goldney's (1977) study revealed a similarly high proportion of perpetrators suffering from depression. Four examples of murder-suicide were examined. Three of the four (75%) perpetrators appeared to be suffering from severe depression, and the fourth showed features of what was described as morbid jealousy. This study hypothesised that persons with severe depression were particularly sensitive to real or fantasised rejection and would therefore react adversely if a relationship terminated. Goldney (1977) proposed that suicide rather than murder was more easily associated with depression and because of this association viewed the murder-suicide as an extended suicide.

Allen (1983) found that there was insignificant information to study the role of depression in murder-suicide. In her study in the USA, the police had interviewed the significant others in the lives of both victim and perpetrator. They counted every time the word "depression" or "despondency" was mentioned. This was noted in 18% of the cases but it was recognised that there were differences in the quality of reporting data therefore limiting the accuracy of the findings. It should also be noted that a general low mood does not automatically equate with the presence of a clinical depression.

Cohen (2000) reviewed murder-suicides in the population of 55 years and older. She termed half of all spousal murder-suicides the *dependent-protective* subtype. In these cases, the husband was usually two to four years older than his wife. He may or may not have had a serious illness, but in most cases, his wife was usually chronically ill. Cohen saw evidence of serious depression, including helplessness, hopelessness and exhaustion. She said that most times, this depression had been undetected and untreated. She described the care-giving responsibilities as stressful but reported dominant or controlling personalities in the perpetrators that predisposed them to act violently. Thus, depression and helplessness, coupled with an inability to fix the situation increased the risk of murder-suicide (Cohen, 2000).

In a further study in the USA, couples in cases of murder-suicide were compared with couples in cases of homicide. Data was obtained from police, the courts, hospital records and interviews with friends and family of the deceased (Rosenbaum, 1990). The study concluded that the murder-suicide and homicide groups were two different populations. The murder-suicide group consisted of 12 cases. Seventy five percent (eight men, one woman) of the murder-suicide perpetrators suffered from depression whereas none of the perpetrators in the homicide group suffered from depression. The murder-suicide group was characterised by depressive illness with an unspecified personality disorder in the male perpetrator (Rosenbaum, 1990).

Other Western studies found evidence of prior depression in their studies. Buteau et al. (1993) found that many of the perpetrators had recently consulted mental health professionals and 23% had made recent suicide attempts or suicidal threats. This profile for murder-suicide perpetrators was similar to the profile obtained by King and Barraclough (1990, in Buteau et al., 1993) for suicide victims. Milroy (1995) found in his study that severe depression was the most significant mental disorder.

Various theorists have attempted to explain the frequency of depression in murder-suicide cases. Rosenbaum (1990) described the onset of the depression as associated with the termination of the relationship when the woman left her spouse or lover. He viewed the depression as a defense against underlying aggressive and murderous impulses. He postulated that if this trigger incident produced intense enough aggressive impulses, then the depressive defense (Klein, 1975, in St Clair, 2000) would be breached and the murderous impulse released. The perpetrator's immediate realization that he or she had committed the crime would then lead to intense guilt, the return of the depressive defense, and subsequently suicide (Rosenbaum, 1990, in Cooper & Eaves, 1996).

Rosenbaum viewed the perpetrator as having experienced Klein's (1975, in St Clair, 2000) paranoid-schizoid position where destructive, persecutory and sadistic impulses dominated. At this stage, frustration tolerance would be low and emotional reactions would be extremes of good and bad. In the depressive position, guilt was experienced for previous aggression toward the loved object and reparation was made for the previous attacks (St Clair, 2000). The suicide of the perpetrator would be his way of making reparation.

Major depression with psychotic features has been considered a predisposing factor in murder-suicide (Malmquist, 1995). After examining previous studies associating depression and homicidal violence (Klaasen & O'Connor, in Malmquist, 1995; Teplin, 1990, in Malmquist, 1995), Malmquist (1995) suggested that individuals with a psychotic depression would be more susceptible to violence. He saw the presence of delusions or hallucinations as significant in increasing the likelihood of homicidal tendencies in an individual who was depressed. A depressed person may have had delusions of a paranoid quality with ideas of reference and persecutory themes. Others would have a guilt-ridden quality of being sinful, or a nihilistic component. Malmquist (1995) concluded that symptoms in those with a psychotic depression, such as psychomotor agitation, prolongation of the depression, ruminating qualities and a failure to respond to treatments increasingly raised the risk of an unpredictable outcome.

Depression with psychotic features has more commonly been researched where the relationship between the perpetrator and victim is that of a parent and a child (Brownse & Palmer, 1975; Resnick, 1969; both in Marzuk et al., 1992). Myers (1970, in Marzuk et al., 1992) as well as Bourget and Bradford (1990, in Marzuk et al., 1992) found that where the mother was the perpetrator, the most significant diagnosis was depression with psychotic features. They postulated that the depressed suicidal mother perceived her infant as an extension of herself. In such a way both deaths, in effect, represented an extended suicide. Nock and Marzuk (1999) theorised that when filicide-suicide occurred in the first six months of the infant's birth, it was probably due to the presence of post-partum depression and psychosis in the maternal perpetrator. Nock and Marzuk (1999) theorised that the younger the child, the more likely the mother was to think of him or her as an extension of herself.

Data on depression in South African murder-suicide studies are limited. Roos and Bodemer (1989 in de Jongh van Arkel, 1993) reviewed five South African case studies of patients referred to a psychiatric hospital after their involvement in family killings. They clinically confirmed that depression as well as previous suicide ideas or behaviours were present in four of the cases.

Within South Africa, the largest study of 17 murder-suicides conducted by the HSRC found that a mood disorder with serious suicidal ideation was present in the perpetrator. It was

suggested that this was a contributor to murder-suicide (Roos et al., 1992). A mood disorder with psychosis was found to be rare and characterised only one case in the study.

It is clear from the above studies that previous depression in the perpetrator needs, in most cases, to be identified by a “psychological autopsy” (Buteau et al., 1993, p. 552). Using more qualitative techniques such as interviewing those who were close to the deceased may be able to offer information that was not available from other sources typically used in a psychological autopsy. There would however then be the risk that the data would not be clinically accurate due to it mostly being reported second hand. It is therefore suggested that the occurrence of depression in perpetrators of murder-suicide is underreported because sufficient information is not easily accessible.

It is clear from the findings and hypotheses discussed above that depression plays a significant role in murder-suicide events. It is important to note that there must be additional intrapsychic factors within the perpetrator that will explain why one and not another depressed individual would decide to take the life of another before killing him or herself. These additional intrapsychic factors are discussed below.

#### **4.2.2 Personality Traits and Disorders**

As discussed above, it is difficult to diagnose depression retrospectively. It can be even more difficult to find evidence of Axis II personality disorders once individuals are deceased. Many individuals with Axis II disorders present themselves for help at mental health professionals only when there is a presenting Axis I disorder (Millon & Davis, 2000). Many personality disorders would therefore go undetected and untreated. This is particularly true for narcissistic personality disorder as their pride usually prevents them from taking the “defective” role of the patient (Millon & Davis, 2000).

Various Western studies have attempted to find evidence for personality disorders that were present in the perpetrators of murder-suicide. Rosenbaum and Bennet (1986, in Marchetti et al., 1992) found in their murder-suicide study that five of their six (83.3%) patients had an Axis II diagnosis. All six patients had revealed suicidal ideation. Buteau et al. (1993) found evidence of depression from psychological autopsies. They however considered the estimates of mental disorders to be conservative as they were limited by the usually scarce psychological material found in coroners’ files. They expected that disorders such as

borderline personality disorder would be common in those who had committed homicide and subsequent suicide.

According to The Diagnostic and Statistical Manual of Mental Disorders (DSM), mental disorders are divided into types based on criteria sets with defining features. There is still no assumption within the classifications that each category of mental disorder is a discrete entity with absolute boundaries dividing it from other mental disorders (APA, 2000). It is common to find co-morbidity among various disorders. This can be seen in both the co-morbidity of Axis I disorders as well as between Axis I and Axis II disorders (Millon & Davis, 2000). This suggests that individuals could be suffering from major depression even though they have an underlying personality disorder.

Several studies have attempted to distinguish between depressive patients at risk for committing suicide, and those with a propensity to be violent toward others (Olivier et al., 1998). Risk factors include a combination of Axis I and Axis II disorders: a history of alcohol or drug abuse, hostility and verbalised aggression, antisocial personality traits and impulsivity (Mairuro, Cahn, Vitaliano, Wagner & Zegree, 1988; Plutchik, Van Praag & Conte, 1989; all in Olivier et al., 1998).

Low intelligence and high impulsivity have been found to be better predictors of violent behaviour among typically “cluster B” personality disorders (Heilbrun, 1979, 1982, in Olivier et al., 1988). Most violent crimes occur among individuals with antisocial personality disorders who are younger than 30 years of age (Meloy, 1987, in Olivier et al., 1988). Furthermore, individuals with antisocial personality disorder and who have committed serious violent offences have had more prior contact with mental health systems, such as previous suicide attempts, and less with the judicial system. The converse applies to those individuals with antisocial personalities who have committed less serious offences (Balla, Lewis, Shanok, Snell & Honisz, 1974; Blackburn, 1968; Whittet, 1968, all in Olivier et al., 1988).

Some personality disorders are often associated with violent behaviour. Antisocial and borderline personality disorders are first and second on the psychiatric diagnosis list for cases where violent behaviour is an essential feature. Serious violent behaviour in personality disorders of the narcissistic type has also been researched (Marohn, 1987; Stone, 1989; both in Olivier et al., 1988). In contrast, paranoid and schizoid personality disorders fall on the

low end of the scale with regards to aggressive behaviour. (Hales & Frances, 1987; Williamson, Hare & Wong, 1987; both in Olivier et al., 1988).

Numerous studies (Easteal, 1994; Milroy, 1995; Nock & Marzuk, 1999; West, 1963 in Goldney, 1977) used the terms of “morbid” or “amorous” jealousy and attributed this to be a predominant causal factor of murder-suicide. Morbid jealousy seems better understood as a symptom of certain Axis II disorders rather than a discrete category of psychopathology as was proposed in the abovementioned studies. For the purpose of this study, morbid jealousy will be viewed as a pathological symptom present in certain individuals with specific Axis II disorders. The term morbid jealousy seems to refer to the rage experienced by a narcissist following a narcissistic wound or the rage experienced by a borderline overwhelmed by his or her affect. In both cases, the rage could result from a partner leaving to be with another, thereby activating a sense of worthlessness in the narcissist and abandonment in the borderline.

Marzuk et al. (1992) described the amorous jealousy subtype of spousal murder-suicide as where typically a male developed suspicions or knowledge of his girlfriend's or wife's infidelity. He became enraged and murdered her before committing suicide. He usually did this using a firearm. The perpetrator would also kill the rival lover, in order to eradicate the lovers' triad. Marzuk et al. (1992) described the murder-suicides as impulsive acts, occurring shortly after the onset of the “malignant jealousy”. This would often have been preceded by a chaotic relationship filled with jealous suspicions, verbal abuse, and physical violence. The triggering event was often then the female's rejection of her lover and her immediate threat of withdrawal or estrangement. It can be seen by the above description how rather than jealousy, it was rage experienced by the perpetrator following the female's rejection.

Many studies (Berman, 1979; Danto, 1978; Palermo, 1994; Selkin, 1976, in de Jongh van Arkel, 1992) describe the quality of the prior relationship between the perpetrator and the victim involved in a murder-suicide. They have described relationships that include previous verbal and physical abuse, impulsivity, a controlling perpetrator, enmeshment between the victim and perpetrator as well as multiple separations or threats of separations. Without specifically mentioning the perpetrator or victim as having personality disorders, often because there was never diagnosis or treatment, the relationship was described as one that is characteristic of individuals with borderline, narcissistic or antisocial personality disorders.

Abramsky and Helfman (1999) proposed that that murder-suicides were committed by narcissistic personality disorders with antisocial traits. This personality type could similarly be referred to as malignant narcissism (Kernberg, 1996, in Millon & Davis, 2000). It has been hypothesised that antisocial personalities and narcissistic personalities with antisocial traits have to varying degrees, sadistic and predatory maternal introjects derived from real parental abuse or severe neglect (Kernberg, 1984, 1989; Jacobson, 1964; both in Abramsky & Helfman, 1999).

This results in a very primitive, sadistic superego. As adults, narcissistic and antisocial personalities split the world into cruel, exploitive people, which are their projected object-representations, and a grandiose, entitled, and perfect self. When there is a narcissistic wound to the self, such as perceived rejection, projection causes the wounded individual to devalue the other or attack in order to maintain a stable sense of self. This aggression protects the homeostatic balance between the self and others (Abramsky & Helfman, 1999).

It has been suggested that prior to the murder-suicides, the narcissist became primitively attached to another individual, such as a wife or child (Abramsky & Helfman, 1999). The narcissistic sense of self or internal stability was maintained by the other's valuation of him or her.

Kohut and Wolf (1978, in St Clair, 2000) described the alter ego personality of a narcissist as someone who required a relationship with another who had the same appearance and values as him or herself. He or she needed such a selfobject to confirm the reality and existence of the self. It was only through the love of others that the narcissist could feel grandiose, whole and worthwhile. These individuals were described as having "merger-hungry personalities". They would have impoverished selves and fluid boundaries and would therefore have trouble distinguishing between their own thoughts and feelings and those of the person or people serving as the self-object. Kohut and Wolf (1978, in St Clair, 2000) believed that merger-hungry personalities demanded the presence of the other person because they experienced the other as their own self (1978, in St Clair, 2000).

When a major insult occurred, such as the termination of a relationship, or a child who wished to break away, the quality and quantity of the narcissistic wounds destabilised the narcissist's sense of self. This would result in a major regression. The regression took the narcissist back

to an extremely primitive level of psychic organization where the distinction between self and other was destroyed. Affectively, a primitive superego expression of rage dominated (Abramsky & Helfman, 1999). The loss of self-object differentiation resulted in the murder of the other as well as the destruction of the self as not being seen as separate psychological acts. The perpetrator could not at that time differentiate between the killing of the other and himself. At this stage, the differentiation between fantasy and reality was lost.

South African studies have looked at the association between perpetrators of murder-suicide and personality disorders. Graser (1987) and du Toit (1990) suggested that personality traits falling in the introvert and neurotic continuum of the personality disorders classified in the DSM-III-R may have been present in the perpetrator (Marchetti et al., 1992).

A study launched among prisoners of the Department of Correctional Services in South Africa during 1995 aimed to identify factors that could be associated with extreme violence and aggressive behaviour. The findings showed a propensity of certain personality disorders present in the prisoners. The sample consisted of 85 volunteers convicted of violent crimes and serving sentences in various prisons. All participants were male. The proportions of the population groups in the sample equalled their national proportions (Olivier, Roos & Bergh, 1988).

Profiles of family murders showed:

- They tended to have identity and sex role problems
- They sustained family relationships but without real emotional depth and warmth
- They were preoccupied with their own problems and had little empathy for others
- They exhibited high levels of anxiety
- Their emotions tended to show fluctuation
- They had difficulty in adapting to environmental stressors
- They felt inadequate and tended to suffer from major depression.

These points indicate symptoms of personality disorders falling within the borderline, antisocial and narcissistic continuum. The co-morbidity between Axis I anxiety and mood disorders and Axis II borderline, narcissistic and antisocial personality disorders is evident.



In summary, the perpetrators of murder-suicide may be individuals with personality disorders on the narcissistic, antisocial and borderline spectrum. The DSM allows for the diagnosis of multiple personality disorders to be assigned because combined personality disorders is common (Millon & Davis, 2000). The perpetrators would usually have additional antisocial traits as well as a co-morbid depression. Narcissists consider themselves as superior to everyone else and would usually become depressed when confronted with objective evidence of failure or inadequacy too profound to ignore (Millon & Davis, 2000). An example of such a failure would be the spouse or partner terminating the relationship.

The nature of their narcissism combined with the antisocial tendencies would allow this depression to be transformed into rage following the experience of a major insult or abandonment. Their intrapsychic factors would affect the way in which they would relate to others, particularly those who have their individual pathologies. These interactions would result in maladaptive interpersonal communications that would contribute further to emotional stress and it is suggested that these would increase the risk of murder-suicide. The following section will explore these maladaptive interpersonal communications.

### **4.3 Interpersonal Factors**

#### **4.3.1 Relationship Difficulties**

The psychodynamics of mutual dependency in the typical maladaptive relationship between the perpetrator and victim have been discussed in a previous section. The following section will detail the specific findings of relationship difficulties that various studies have examined. These relationship difficulties will be examined in the context of how they are associated with the phenomenon of murder-suicide rather than being discussed from a specific psychodynamic perspective.

Western studies have often researched the prevalence of infidelity or relationship separations among couples involved in murder-suicide. West (1967, in Danto, 1978) proposed that sexual infidelity or financial deceit were precipitating stressors in murder-suicide. Rosenbaum and Bennet (1986, in Marchetti et al., 1992) found infidelity to be the leading sociological cause of murder-suicide. They found that five of the six (83%) patients in their study had sexual infidelity as a precipitating factor.

Threats of separation or the actual separation of partners has been found to occur frequently in the period preceding murder-suicide cases. Relationship separations or estrangement appears to have been associated more often with murder-suicide events than infidelity. In the study by Morton et al. (1988), it was suspected, but no records were found to substantiate, that the partner had threatened to leave the perpetrator following a dispute. It was believed that this had been a precipitant in the murder-suicide. In Canada, the most likely perpetrator was found to be a male who was estranged from his wife (Daly and Wilson, 1988a, 1988b, in Easteal, 1994). Only 21.6% of “wife” killers who were not estranged from their partner took their own lives after killing their wife. The suicide of an offender after a homicide seems to have occurred more frequently when the couple was estranged than when the relationship was still intact. Rosenbaum’s (1990) study of 12 cases of couples involved in murder-suicide found that at the time that the crime had occurred, eight couples (66.7%) were separated.

Recent separations were found in 59% of the 39 cases of homicide-suicide in a second study in Canada. This included those events that involved only children of the perpetrator (Buteau et al., 1993). The study did not clarify where the spouse or partner were at the time of the event. It can be hypothesised that there was little distinction between the self and other in the moments before the killings and that the children were viewed as extensions of the perpetrator.

Milroy (1995) found that in many murder-suicide cases, the woman was initiating divorce proceedings or had often made plans to separate. In six out of 52 cases (11.5%), the man had already separated from his spouse but returned to the house to kill the woman. In three cases (5.8%), two men and one woman, the breakdown in the relationship resulted in parents killing their children but not their spouse. There was again no clarification of whether the spouse was present at the time. There were therefore no hypotheses as to whether this presence or absence of the spouse influenced the choice of victims in the murder-suicide event.

Cooper and Eaves (1996) judged that over half of the murder-suicides in their study had been precipitated by a separation. They found that in some cases, the victim had made a clean break with the perpetrator and at other times was ambivalent about the separation. They found that obsession with and dependence on their female partner was characteristic of those who killed either their partner or their children after a separation. Abramsky and Helfman

(1999) found that in most cases the murder-suicide would occur when one spouse tried to unequivocally terminate the relationship.

In the Asian study in Japan, the separation of husband and wife accounted for 22.22% of all murder-suicides (Sakuta, 1995).

Within South Africa, the combined HSRC/Weskoppies study found that 77% of those involved in murder-suicide reported marital difficulties (Roos et al., 1992). de Jongh van Arkel (1993) found that the murderer tended to be more deeply involved with the children rather than with the spouse. This is suggestive of an enmeshment between the perpetrator and the children. It indicates a difficulty in distinguishing the self from the other and once again describes how the perpetrator may view the murder-suicide as an extended suicide.

Both infidelity and relationship separations have been reported to precede murder-suicide events in many cases. The extent to which this occurs varies from 11% to 77%. The research indicates that relationship separation rather than sexual infidelity is more commonly associated with murder-suicide. The separations and infidelities can be seen as major psychosocial stressors. From a psychodynamic perspective, the separations or infidelities can be viewed as the triggering incident or narcissistic wound. It is likely that the build up to these separations would have been relationships characterised by problematic communication styles. Some of these problematic methods of interacting will be discussed below.

#### **4.3.2 Previous Verbal or Physical Abuse**

Reports of verbal or physical abuse in murder-suicide cases have been reported to varying degrees. These reports were evident only in the Western studies and were not mentioned in the Asian or South African studies.

Verbal abuse rather than physical violence has been reported in some studies (Allen, 1983; West, 1967, in Danto, 1978). Murder-suicide has been found to occur following a violent verbal exchange between spouses, children and parents, or between lovers. Allen (1983) found the majority of murder-suicide cases to be between a husband and wife or two lovers where there was an unbalanced, inharmonious, quarrelsome love relationship. Her study did not investigate whether physical violence had been a part of this discord.

Other studies have found a history of verbal and physical abuse. In more than one quarter of the typology of “conflict-based” cases as defined by Wallace (1986, in Easteal, 1994), it was found that the victim had been previously physically abused or threatened. A USA study found that in addition to physical abuse occurring in 58.3% of cases, these relationships were described as generally chaotic (Rosenbaum, 1990). Easteal (1994) found that the majority of the perpetrators (81%) had previously physically assaulted their partner.

Morton et al. (1998) found that the majority of partner murder-suicides were characterized by male proprietary feelings, preceding verbal and physical abuse, and victim attempts to leave the relationship. Previous incidents of domestic violence were not always reported in the specific files from where the data was retrieved and it is therefore likely that the incidence was higher than that found in the research. Several cases reportedly involved perpetrator jealousy or paranoid and suspicious behaviours often present in a battering relationship (Morton et al., 1998). Morton et al. suggested that this jealousy may have been indicative of power and control dynamics in a relationship, reflecting a symptom of abusive interactions, rather than functioning as a causal factor in murder-suicide.

Various other studies (Abramsky & Helfman, 1999; Cohen et al., 1998; Cooper & Eaves, 1996; Marzuk et al., 1992) cited prior verbal and physical abuse in the antecedent history. In some cases, no information was available for many of the perpetrators and it was therefore suggested that this figure be interpreted with caution (Cooper & Eaves, 1996).

Within South Africa, it was found that the marital relationship of those involved in family murders were characterised by an ineffective communication style, superficiality in the relationship, emotional abuse, physical abuse, jealousy, lack of trust, emotional withdrawal of one partner in the marriage, and disrespect for one another (de Jongh van Arkel, 1993).

Many previous studies have reported a history of verbal abuse and extensive quarrelling and/or physical violence. The extent of this abuse in the prior relationships of victims and perpetrators has at times been difficult to determine because the histories of domestic violence or disturbances have not always been reported. Even in cases where domestic violence has been reported, the information would not always be available from the data source as usually only the police or courts would keep records of this. It is therefore probable that the incidents of both verbal and physical abuse are underreported in murder-suicide cases.

Intrapsychic as well as interpersonal factors that are seen to be leading causes of murder-suicide have been discussed above. The following section will discuss factors that are generally considered external to the control of the individual. In particular, community violence will be discussed with reference to its association with murder-suicide.

#### **4.4 External Factors**

##### **4.4.1 Community Violence**

International studies have not included the community context as a factor associated with murder-suicide. Most international studies examined murder-suicide from a psychodynamic framework and therefore intrapsychic factors would be considered to be of paramount significance. Viewing the community as a variable seems to suggest a conceptualisation from a systemic perspective. Although this particular study favours the psychodynamic approach, the extent of community violence within South Africa insists that this factor be included so that its possible effect on the violent act of murder-suicide may be studied.

Pretorius (1987, in de Jongh van Arkel, 1993) theorised that the perpetrator lived in and was part of a community where violence had a high incidence and was culturally legitimised. de Jongh van Arkel (1993) postulated that family murder took place in a violent community that was described as subscribing to the norm that violent deeds with “noble” causes were acceptable. In such a community, a person or group had the right to make decisions and to be responsible on behalf of others.

This hypothesis seems to pertain to the traditional view that murder-suicide was perpetrated by a White Afrikaans male who was usually the father and husband and was recognised as the patriarchal head of the household. The “noble” causes would involve the perpetrator killing the family member and himself for what would be perceived by him as altruistic reasons that would save the family from the threatening world outside. It is suggested that because the previous apartheid government made autocratic decisions on behalf of other race groups, this could have been used as a model for the perpetrator. The lack of substantial South African literature over the past 40 years does not allow for thorough assessment of whether White Afrikaans families were predominantly involved in murder-suicides, or whether this was a result of underreporting and under-policing as mentioned in section 2.2.2.

If murder-suicides from other race groups were previously underreported, it can be disputed that a perpetrator with antisocial or narcissistic personality traits would easily subscribe to the beliefs that they would have the right to make decisions on behalf of and take control over others. This suggests that although the attitudes and actions of the previous government played a role in murder-suicide, it was primarily the individual characteristics of the perpetrator as well as the maladaptive relationships of the family system that led to murder-suicide in all race groups.

It is however noted that severe psychosocial stressors will impact an individual's thought processes and behaviour. For example, Black males in South Africa in the 15 to 44 year age group have been more significantly involved in political activism than most other age, sex or cultural group. The result of this is that there have been both long-term and short-term stressful effects of such experiences for this particular group (Wassenaar et al., 2000). In the same way, individuals living in a violent community will not remain unaffected by this violence. This type of environmental aggression can be seen as an additional stressor and to some individuals as a model of behaviour.

#### **4.5 Summary**

The aetiology of murder-suicide can be seen to be a combination of predisposing intrapsychic factors within the perpetrator and victim that form the foundation for interpersonal difficulties between the dyad (usually). These interpersonal difficulties are then exacerbated by external stressors not directly under the individual's control.

Intrapsychically, the perpetrator was found to be clinically depressed with or without psychotic features. The offender would have strong personality traits or a personality disorder on the narcissistic, antisocial and at times borderline continuum. A narcissistic wound, such as the infidelity of or separation from a loved one, would enable the breach of the depressive defense (Klein, 1975, in St Clair, 2000) in order for the murder to occur, and on return of this defense, the perpetrator would commit suicide.

The relationship prior to the "traumatic event" would typically be characterised by physical and verbal abuse by the perpetrator revealing malignant narcissistic tendencies. External factors including high levels of violence in the community would add to already high levels of stress and would act as a catalyst in the murder-suicide event.

These intrapsychic, interpersonal and external factors as discussed above form the foundation for the frequency of occurrence of various demographics. These specific demographic categories as they occur in murder-suicide studies will be discussed below.

## **CHAPTER 5**

### **DEMOGRAPHIC FACTORS**

#### **5.1 Introduction**

As mentioned in section 2.1.2, most studies tend to be retrospective, collecting data from medical examiners, coroners' reports or the courts (Goldney, 1977; Hanzlick & Koponen, 1994). Some of these studies use police data as a source of information or to substantiate initial data (Allen, 1983; Rosenbaum, 1990). Other studies have used press reports to collect information (Graser, 1987, in Olivier et al., 1991; Osborne, 2001) with only one known study using purely exploratory methods (Olivier et al., 1991).

Studies that have used coroners' reports or other official documents have tended to use similar demographic categories as a means of classifying data. Research using alternative techniques has included some but not all of these categories. These alternative techniques seem to allow for extensive data in very specific but limited categories. They failed to provide general statistics over a broad range of categories.

The exploratory method, used in South Africa's largest study of murder-suicide to date (Olivier et al., 1991), attempted to understand why these events occurred. It seems that in order for future exploratory studies or alternatively press reviews to be most beneficial, accurate base rates would be the most useful foundation from which to work. As there are currently no base rates in South Africa, this study aims to pioneer the development of accurate base rates. The findings from relevant international as well as South African studies will be discussed below in their relative categories in order to be used later as a means of comparison with the results generated in this study. These base rates can then serve the purpose of being a starting point for future murder-suicide studies.

#### **5.2 Sex**

Most murder-suicide studies have focussed on the sex of the perpetrator and his or her choice of the sex of the victim.

In most cases, the perpetrator was male. Hanzlick and Koponen (1994) found that 100% of all offenders were male. They found that usually, there was one victim, who was female.



Felthous and Hempel (1995) reviewed murder-suicide research in the USA (Allen, 1983; Berman, 1979; Currens, 1991; Palmer & Humphrey, 1980; Rosenbaum, 1990, Wolfgang, 1958, all in Felthous & Hempel, 1995). They found that over 90% of the perpetrators were male in all the studies. In England, Milroy (1993) found that 94.2% of the perpetrators were male. Wallace (1986, in Easteal 1994) found that 82.5% of perpetrators were males.

The above results revealing such a large proportion of perpetrators as male conflict with West's (1967, in Felthous & Hempel, 1995) early English study. He found only 59.9% of the perpetrators to be male. Felthous and Hempel (1995) proposed that cultural factors may have played a role therefore suggesting that even within a given society the male-female ratio of offenders could change over time.

West's (1967, in Berman 1977) study found that 41% of the perpetrators were female. It is noted that West's early study was one of the few Western studies finding such a high percentage of female perpetrators. In the only Asian study reviewed in detail, female perpetrators were frequent (52%). Only 42% of the perpetrators were male (Sakuto, 1995). A later Japanese study (Kominato et al., 1997, in Lester, 2000) found that the majority of the perpetrators were male and that they usually killed their wives and/or children. In both West's and Sakuto's study, the female perpetrators usually killed their children as well as themselves. These variations between countries suggest that cultural and social factors may also play a role in the choice of victims (Felthous & Hempel, 1995). Reliable assumptions about culture and murder-suicide cannot be made when there is only one Asian study that is compared to a wealth of Western studies.

In Canada, it was found that all the murder-suicides with female offenders occurred when children had been killed (Silverman & Mukherjee, 1987, in Easteal, 1994). Several studies (Daly & Wilson, 1988; Rodenburg, 1971 both in Nock & Marzuk, 1999; Dawson & Langan, 1994, in Felthous & Hempel, 1995; Goldney, 1977; West, 1967, in Felthous & Hempel, 1995) concluded that a mother who committed murder-suicide tended to kill only her children and herself, sparing the spouse. In contrast to this, a father who killed his children was more likely to kill his entire family, including his spouse.

Some Western studies have found that only infrequently did a woman kill her spouse before committing suicide. Buteau et al. (1993) found that only three female perpetrators out of 39

(7.7%) cases included two young women who committed infanticide before killing themselves. In the other case, a socially isolated and exhausted woman killed her chronically ill husband in what was viewed as a mercy killing. Cooper and Eaves (1996) found that only 2 out of 124 (1.6%) cases were precipitated by females. In both instances, it was concluded that the perpetrator was psychotic at the time. In the first case, the mother killed her husband and her two sons. In the second case, a mother killed her daughter and herself by carbon monoxide poisoning.

It has been found that filicide-suicide is more likely to occur within the first six months of the infant's birth (Nock & Marzuk, 1999). It was proposed that mothers who killed their children were most likely suffering from post-partum depression and psychosis (Resnick, 1969; Marks & Lovestone, 1995; both in Nock & Marzuk, 1999). The motives of the maternal perpetrator were often altruistic as it was believed that no one would be left to care for the children. Alternatively, there were extenuating circumstances because the mother was delusional at the time.

There is limited research on murder-suicide that has used age as a primary variable. Cohen et al. (1998) examined 171 murder-suicide events in Florida. They compared murder-suicide with elderly couples and with young couples. They found that 100% of the perpetrators in the older age group were men whereas 66% of the younger age group were men. This may be because female perpetrators of murder-suicide would usually kill their children (Felthous & Hempel, 1995) and with elderly females, their children have left home. The children have by this life-stage, separated from their mother both physically and emotionally and will no longer be viewed as extensions of her.

Within South African, Roos et al. (1992) found that 59% of the perpetrators were male and a high proportion, 41% were female. The studies did not clarify who the victims were in these cases. Osborne (2001) found that 88% of those committing murder-suicide were men and 12% were women. There was one case where a woman murdered her partner and then took her own life. In all other cases, the woman murdered her children before killing herself. The literature shows that men are the most common perpetrators, usually killing their spouse or lover, and at times their children too. Where women are the offenders, they tend to kill their children, often sparing their partner. The above discussion has focussed on the

relationship between the perpetrator and the victim with regards to sex. The following section will continue to examine this relationship but more specifically as it relates to age.

### **5.3 Age**

Various Western studies (Berman, 1979; Marzuk et al., 1992; Milroy, 1993) of murder-suicide have investigated the mean age of the perpetrator while the only Asian (Sakuto, 1995) study investigated the age of the victim. While these Western studies have omitted the age of the victim, they have instead chosen to focus on the age difference between the perpetrator and victim.

Marzuk et al., 1992 reviewed existing Western literature (Berman, 1979; Copeland, 1985; Currens et al, 1991; Selkin, 1976; Wolfgang, 1958; all in Marzuk et al., 1992) on murder-suicide and found the mean age of offenders in USA studies to be 39.6 years. Palmer and Humphrey (1980, in Easta, 1994) found similarly that the perpetrator would be over 30 years old.

Other Western studies found the mean age to be slightly older. In a USA study, perpetrators were men over the age of 40 years (Allen, 1983). In England, Milroy (1993) found the mean age of male assailants to be 49 whereas the three female perpetrators ranged from ages 30 to 40 years. In contrast, Buteau et al. (1993) found the typical perpetrator to be a male under the age of 40 years.

In Australia, Easta (1994) found that the perpetrators were more likely to be older, over 60 years. Her research clustered elderly male offenders killing their ailing wives, and another younger-aged group of males whose actions appear to be prompted by control-type issues. The older-aged group seemed to commit the murder because of an inability to accept an almost complete role reversal in the marriage when the former nurturing wife fell ill and was no longer be able to care for her husband. Alternatively, there was a mercy-type killing where the husband's deteriorating health made caring for his sick wife problematic. Cohen (2000) found age difference to be especially significant in older murder-suicide couples. Illness and pain were common in some older couples and this was cited as the main reason for the murder-suicide.

In all studies where the age difference between the perpetrator and victim has been examined, the victim was found to be consistently younger than the perpetrator (Berman, 1979; Cohen et al., 1998; Hanzlick & Koponen, 1994).

The only Asian study investigated the age of the victims rather than the perpetrators. It was found that victims in their thirties were most common. Children were the most common victims in this study. Children under 10 years accounted for 70% of all cases whereas children over 10 years accounted for 19% (Sakuto, 1995). In cases involving couples, victims in their forties were most common. This was followed by victims in their twenties.

The HSRC study within South Africa carried out in the eighties found the mean age of assailants to be 34 years (Roos et al., 1992). Their age ranged between 24 and 35 years. Osborne (2001) found that of the 61 cases where age was specified, the majority of the perpetrators were under the age of 50 years.

A suicide study in Pietermaritzburg found that ages for Black and Indian males were similar, with the highest rate in the 25-34 year age groups (Wassenaar et al., 2000). This is lower than the average age of murder-suicide in many international studies (Buteau et al., 1993; Easta, 1994; Milroy, 1993). These South African suicide findings are however consistent with the largest South African murder-suicide study to date where perpetrators were between the ages of 24 and 35 years.

A review of the literature examining the age of offenders and victims suggests that generally the victim, usually female, is younger than the perpetrator, who is usually male. The age range of the perpetrator seems mostly to fall within the 30 to 50 year group. Limited South African research showed that murder-suicide perpetrators were younger than the international average but were similar in age to domestic suicide victims.

#### **5.4 Race**

It is recognised that the category of race is not equivalent to that of culture or ethnicity, and that individuals of a particular race group may have varying ethnicities and cultures. The term *race* is used to describe a group which is set apart from others because of obvious physical differences. Ethnic groups are set apart from others primarily because of the group's

national origin or because of distinctive cultural patterns (Schaefer & Lamm, 1992). For the purpose of this study, race rather than ethnicity will be used as a variable.

Studies in the USA have found a proportionately high number of murder-suicide perpetrators to be White. In Philadelphia, Baltimore and Washington DC, 50% of all murder-suicide perpetrators were White (Berman, 1977). Similarly, Palmer and Humphrey (1980, in Easta, 1994) found that in 94% of the cases, the primary offender was a White male. In Los Angeles, the majority (52%) of the murder-suicides were between two Whites, followed by 28% between two Blacks, 9.6% between Hispanics, 2% between Asians, and the remaining 8.4% between individuals of different ethnicity (Allen, 1983). The demographics of the USA differ between states with Los Angeles for example being one of the more cosmopolitan states. This makes it difficult to know if any one group was disproportionately over or under-reported.

Murder-suicide has been found to mostly occur between individuals of the same race (Allen, 1983; Currens, 1991, in Palermo, 1994; Fishbain, Rao & Aldrich, 1985, in Palermo, 1994). Hanzlick and Koponen (1994) found that 83% of all incidents were intra-racial.

Within South Africa, Roos et al. (1992) found that in the mid-eighties, 65% of the perpetrators of murder-suicide were white, 29% black, and 6% coloured. This contradicted the speculation that the typical family murderer was a White Afrikaans male. These results showed that White perpetrators were most common even though they represented a minority of the total South African population. Osborne's (2001) found that 59% of perpetrators were Black, 27.7% were White, 10.8% Indian and 2.4% Coloured.

Although most perpetrators are depicted as White, the demographics of the particular region need be taken into account and the results reviewed accordingly. The question that always needs to be addressed is whether the racial distribution represented in the results is disproportionate for a particular region. Only then, can findings on race distribution with regards to murder-suicide be significant.

## **5.5 Relationship between Victim and Perpetrator**

The above three sections have discussed the sex, age and race of the victims and perpetrators involved in the events. This section will focus on the relationship between the victim and perpetrator with specific reference to their sex and age.

Marzuk, Tardiff, and Hirsch (1992, in Nock & Marzuk, 1999) have proposed an efficient and concise classification system that categorizes murder-suicide by type of victim-perpetrator relationships:

### **I Spousal or Consortial**

Perpetrator:

1. Spouse
2. Consort

### **II Familial**

Perpetrator:

1. Mother
2. Father
3. Child (under 16 years)
4. Other adult family member (over 16 years)

Type of Homicide

- i. Neonaticide (child <24 hours)
- ii. Infanticide (child >1 day, <1 year)
- iii. Pediticide (child 1 through 16 years)
- iv. Adult family member (>16 years)

### **III Extrafamilial**

Most studies can make use of this classification system to categorise and compare the types of relationships between victims and perpetrators, and how this relates to murder-suicide cases.

Using Marzuk et al.'s (1992) typology, it is evident from the literature that a large proportion of murder-suicides can be classified into the spousal or consortial subtype. Various studies

(Allen, 1983; Palmer and Humphrey, 1980, in Easteal, 1994; Wallace, 1986; in Easteal, 1994) found that most murder-suicides involved the male killing his wife or girlfriend.

Within the couples involved in murder-suicide, Allen (1983) found that three of the cases were linked as homosexual lovers. Two of the three appeared to be bisexual, as the relationship was disrupted when one partner began having sex with a female. Buteau et al. (1993) found that two cases out of a total of 39 (5.1%) involved homosexual couples. In all but two cases, the victims were all known to the perpetrator and they had been living together as a couple. In these two exceptions, the incidents would have been classified as extrafamilial. In the first instance, a male killed another male while psychotic, and in the second, 14 women were murdered in a mass killing.

In England and Wales, West (1965, in Easteal, 1994) found that the majority of victim-perpetrator pairs (82%) were from the same family. Although this included couple murder-suicides, it also included incidents where children had been killed in the murder-suicide. This was similar to Milroy's (1995) findings where the most common relationship of the perpetrator was the victim's husband, secondly followed by the victim's father, then a husband and father, then mother and only after that, lover. He found that there was often a breakdown in relationships where the victim was frequently the woman on her own.

A similar finding of a high prevalence of fathers as the perpetrator was found in British Columbia (Cooper & Eaves, 1996). Almost one third (29%) of the victims of homicide were children who were killed by their fathers following the marital separation of their parents.

Familial killings, typically pedicides and infanticides, (Marzuk et al., 1992) have been reported to a lesser degree than spousal or consortial killings, but have been consistently reported. Female offenders have been found to more likely to kill their children rather than their spouse (Wallace, 1986, in Easteal, 1994). Buteau et al. (1993) and Cooper & Eaves (1996) found that the only two female offenders murdered their own children before killing themselves. In one case, the perpetrator also killed her husband.

The proportion of female killers is reported to increase where victims are immediate members of the family or they are the children (Felthous & Hempel, 1995). In the USA, at least half of all pedicides (murder of child aged one through sixteen) and infanticides (children under the

age of one year) were perpetrated by the parent, most often the mother (Adelson, 1991; Myers, 1970; Resnick, 1969; all in Nock & Marzuk, 1999).

Marzuk et al. (1992) examined the category of filicide-suicide where mothers or fathers killed their children and then committed suicide. Sixteen percent to 29% of mothers and 40% to 60% of fathers committed suicide immediately after murdering their children (Adelson, 1991; Myers, 1970; Wilkey, 1982; all in Marzuk et al., 1992). Mothers were reportedly more likely than fathers to kill their infants in simple child killing. It was however found that, as children aged, the child's risk of dying at the hands of his or her mother or father appeared to equalise or even reverse (Resnick, 1970, in Marzuk et al. 1992).

The study in Japan (Sakuto, 1995) revealed results dissimilar to most Western studies. Murder-suicide cases of a single parent and a child as well as cases of multiple family members were most common. Unlike most Western studies, double suicides of lovers were in the minority (7%).

In Japan, mothers accounted for 48% and fathers for 41% of all assailants. Pediticides were most common. Children under the age of 10 were the most frequent victims. Twenty-two percent of the total crimes occurred where married couples were living separately. This was viewed as a transitional and unstable period (Sakuto, 1995).

This dominance of female murderers is similar to that found in West's (1967, in Eastaale, 1994) study. Where females were ranked slightly higher as perpetrators, it was found that sex-related difference was smaller. In other words, where the mother was the perpetrator, she would usually kill her child before killing herself. West and Sakuto's studies are among the very few where spousal or consortial killings do not dominate the cases.

Within South Africa, the HSRC study found that 83% of the perpetrators and victims were married and 17% were divorced (Roos et al., 1992). Because the study was based on the concept of murder within a family, the murder of a spouse only was not included in the definition of a family murder (Olivier et al., 1991). This renders the data in this category incomparable with international studies. A more recent South African study (Osborne, 2001) used the classification system of Marzuk et al. (1992). It was found that 73.5% of murder-suicides were of the spousal or consortial type where either the wife or lover was the victim.



The victims and perpetrators were related (familial) in 62.7% of the cases and in 2.4% of the cases, the events were termed as extrafamilial. Osborne's (2001) study is one of the few to report an occurrence of extrafamilial murder-suicide cases.

It appears from the literature that the majority of studies show that spousal or consortial type murder-suicides are most commonly reported. Although pedicide or infanticide occurs less frequently than murder-suicide between adults, it is consistently found at a varying, but usually low rate across most studies. Extrafamilial murder-suicides appear to be in the minority.

## **5.6 Socio-economic Class**

It has been noted that suicide rates are greater among individuals with high social status (Wolfgang, 1968) whereas other patterns of criminal behaviour, such as homicide or acts of aggression, appear to be more commonly reported within the lower socio-economic classes (Felthous & Hempel, 1995). There are no known South African data with which to compare these findings.

The socio-economic class of murder-suicide victims and perpetrators appears only to have been researched in Western studies. Landau (1979, in Buteau et al., 1993) compared international rates of homicide, suicide and murder-suicide. An inverse relationship between homicide and murder-suicide was found. Murder-suicide, like suicide, was found to be associated with the middle and upper class status. Various (Felthous & Hempel, 1995; Palermo, 1994; Wallace, 1986, in Easteal, 1994) other studies found that murder-suicide was most common among middle to higher socio-economic groups. This finding coincided with Katz (1988, in Easteal, 1994) who found that suicide followed homicide in 27% of "affluent" cases in America.

This grouping of offenders toward a higher socio-economic class has been explained in that both suicide and murder-suicide are triggered by losses, such as the loss of a job. It has been hypothesized that those in the lower classes cannot lose what they do not have and so are less likely to consider self-destruction in response to deprivation or unemployment (Felthous & Hempel, 1995).

Various factors contribute to the social class of an individual. These include criteria such as education, occupation, income and residence (Schaefer & Lamm, 1992). These criteria of education, occupation and residence will be discussed below with particular reference to how they relate to an individual's income.

### **5.6.1 Level of Education**

Few studies have examined the education level of both victims and perpetrators and how this influenced murder-suicide scenarios. The level of education can indirectly influence the earning potential and socio-economic status of an individual or family system. It can provide to some extent an indication of the level of intelligence or motivation of an individual but it is acknowledged that in doing this, there are numerous confounding variables.

Few Western studies have focused on the level of education of either the perpetrator or victim. In the USA, Morton et al. (1998) found that the educational attainment of victims and perpetrators ranged from 3 to 16 years of education and that 4% of perpetrators and 3% of victims had completed tertiary education.

In reviewing the South African literature, de Jongh van Arkel (1993) compared the educational level of the perpetrator and victim. It is not clear whether the offender and victim were previously from the same race group and had been educated through the same system. It was found that the murderer tended to have a lower educational level than the spouse. No theories were generated to explain this.

The South African education system was until the early 1990's segregated by race and there were dramatic differences in the syllabi for each race group. Many of the adults in this murder-suicide study would have been schooled in this segregated education system. For this reason, it is difficult to use education level as a variable in a population group that was previously segregated and was given grossly unequal educational opportunities. This does not mean that education as a variable needs to be excluded in South African studies but rather that care needs to be taken to identify the confounding variables so that they can be minimized where possible.

### **5.6.2 Nature of Employment**

An individual's work or status of unemployment can be a direct stressor both financially and emotionally. The effects of employment status or financial difficulties on murder-suicide have not been broadly researched on the international spectrum. The only known Western study measuring financial stress is that conducted in England by Milroy (1995). He found that in 11% of the murder-suicides investigated, financial stress was the predominant reason behind the crime.

A second Western study (Morton et al., 1988) looked at the association between occupational categories and murder-suicide perpetrators. It was found that the majority of perpetrators (78%) held jobs in labour or service industries, 16% were in professional or managerial positions, and 6% held clerical positions. Research in Japan also chose to include the specific type of employment as a variable in murder-suicide research. Sakuto (1995) reported that 52% of murder-suicides were associated with illness and/or economic hardship. Those who had no permanent employment or those who were unemployed comprised 33% of the assailants, followed by blue-collar workers, who comprised about 19%.

South African studies have researched financial stress and its relation to murder-suicide where many international studies have excluded this. The domestic emphasis on this variable is likely a result of South Africa having a history of a high unemployment rate and unequal wealth distribution. Young men of working class backgrounds with limited employment opportunities have generally been found to be a high risk for suicide (Hawton, Houston & Sheppard, 1999, in Wassenaar et al., 2000). In February 2002, the unemployment rate in South Africa was 29.4% ([www.statssa.gov.za](http://www.statssa.gov.za)). This suggested that a large proportion of the population would be financially stressed. Many of the Western countries studying murder-suicide do not have such a pervasive economic and unemployment problem as South Africa. They would therefore not consider employment as a variable that may affect murder-suicide statistics.

The results of the HSRC's descriptive, exploratory study of 17 cases showed that 83% reported financial problems as well as related mood disorders (Roos et al., 1992). The researchers argued that people with financial stressors are more prone to mood disorders because of narcissistic injury and/or real object loss. In contrast, Osborne's (2001) study found that only 6% of those whose employment status was known, were unemployed.

It can also be argued that financial difficulties, in particular the inability to have a stable income and to provide for a family, may emasculate certain men. This would particularly pertain to those subscribing to a patriarchal system, and additionally to those who have strong narcissistic personality traits. It is suggested that these individuals would be more prone to mood disorders. They may have an increased desire to defend against perceived emasculation experienced as a narcissistic wound.

It has been suggested that Black men in South Africa have suffered unemployment more than any other population group and have additionally had to face the liberation and empowerment of women ("Black Man's Burden," 1999). It appears then that this group of individuals would feel most disempowered and emasculated. This would be particularly pertinent to those who have traditionally subscribed to a patriarchal system.

As mentioned above, specific types of employment can be stressful to an individual. Internationally and within South Africa, the police service is well recognised as a stressful environment (Maris et al., 2000; Masuku, 2000). South Africa has one of the highest rates of police officers killed in the world. An average of 240 police officers were murdered per year between the years 1994 and 1998 (Chetty, 2000). It has been suggested that police are exposed to extreme stress as well as being placed under severe economic pressure ("Suicides and Family Murders," 2001).

The police are at the forefront of violence in South African communities. The highest number of police suicides in 1998 and 1999 were recorded in the provinces of Gauteng, Kwazulu-Natal and the Eastern Cape. This correlates with the greater police population in these areas as well as with the provinces reflecting the highest levels of recorded crime (Masuku, 2000). It is expected that the majority of police suicides would occur where their clustering is greatest, but it is probable that the police in these areas experience very high levels of stress as a result of the excessive violence and crime.

It has been reported that provinces with relatively low crime rates still have high rates of suicide among their police officials. This suggests that there is more to South African Police Service (SAPS) suicides than only stress associated with high crime levels and case loads. The high suicide rates in these regions question the distribution of SAPS stress management services in the country and police officials' use of such services (Masuku, 2000).

Osborne (2001) reviewed press reports of murder-suicide in South Africa from 1997 to 2001. She found that 24.1% of murder-suicide perpetrators were policemen. She attributed these high rates to such factors including low pay and occupational hazards of being exposed to high levels of violence and crime.

Financial stress as well as particular work pressures directly and indirectly impact on an individual's psychological functioning. These factors are often external to the individual's direct control and as mentioned in 4.1 can be seen as contributing to the murder-suicide event.

## **5.7 Method of Death**

Research on murder-suicide has predominantly focussed on the frequency of the methods of death used in these events. The reasons behind this choice of method have been studied to a limited degree and will be discussed below in conjunction with the findings of the frequencies of various methods of death.

Western studies have frequently cited the use of firearms as the most popular method of death in murder-suicide (Easteal, 1994; Palermo, 1994). A lower proportion of firearms, 56%, were used as the method of death in Quebec (Buteau et al., 1993). Other Western studies (Allen, 1983; Berman, 1977; Cooper & Eaves, 1996; Hanzlick & Koponen, 1994; Milroy, 1993; Morton et al., 1998) found that between 71% and 95% of all murder-suicides were committed with firearms.

Allen (1983) postulated that this high figure reflected the ready availability of guns in the USA. Cohen et al. (1998) likewise implicated environmental features such as the availability of guns, as one of the circumstances that lead to homicidal-suicidal behaviour.

The influence of the availability of the method can also be observed in the findings of West's (1967, in Berman 1977) early study where coal gas poisoning was most common. Guns were the method of choice in about 20% of the cases. This differed from Milroy's (1993) later English study that found shooting to be most common. Milroy (1993) attributed this difference to the fact that domestic gas in the UK no longer contained carbon monoxide and was non-toxic, thereby eliminating this method of killing. It is also noted that the majority of the perpetrators in West's study were female. It can be argued that coal gas poisoning

showed the predominance of a less violent form of murder suggesting that females would choose a less violent form of death.

The relationship between method of death and sex of the perpetrator has been investigated to a limited extent. Adelson (1991, in Marzuk et al., 1992) found that firearms were rarely used by mothers but were more commonly used by fathers. Sakuto (1995) found that in Japan, 29.6% used strangulation as a means of death whereas 25.9% used poisoning by gas. Fifty two percent of the perpetrators were female in this study. In filicide-suicide, the mother has been found to typically beat, suffocate, stab, strangle, drown, gas or throw the child from the room through the window and used a similar method for suicide (Adelson, 1991; Myers, 1970, both in Marzuk et al., 1992).

Milroy (1993) found that shooting was by far the most common method. This was followed by asphyxia, then stabbing, after that gassing, then using a blunt instrument, then poisoning and lastly burning. Palermo (1994) found that it was rare that an assailant killed his partner by knifing and then stabbing himself at the scene of the crime. He proposed that the use of guns reflected their easy availability in homes and on the streets as well as the “quick-fix” social attitude to the solution of problems.

Within South Africa, Roos et al. (1992) found that shooting was also the most common method, used in 35% of the cases. The trend was similar to Milroy’s finding in that gassing was the second most common, thirdly blunt trauma, drowning and strangulation, and lastly burning and stabbing. A more recent study of murder-suicide by Osborne (2001) found that firearms were the predominant method of death, used in 78.3% of the murder-suicide cases. This was followed by hanging, then poisoning and drowning, and lastly stabbing. She concurred that females were less likely to use firearms.

South African suicide statistics show similarities to the South African murder-suicide statistics. In South African suicides, hanging was the most frequently employed (36.2%) as a method of suicide. This was followed by shooting (35%), then poisoning (9.8%), gassing (6.5%) and lastly burning (4.1%) (Schlebusch, 2000).

With few exceptions, it is clear that guns are the most frequently used weapons in murder-suicide cases in Western countries and within South Africa. West’s (1967, in Berman 1977)

study in England and Sakuto's (1995) research in Japan are the only known studies showing females to be the more likely perpetrator. This finding correlates with these being the only two studies showing alternatives to guns as the most frequently used method of killing. Marks (1977, in Maris et al., 2000) found that females often associated painlessness and efficiency with drugs and poisons, whereas males associated masculinity and efficiency with firearms. This suggests that there are multiple factors influencing the choice of method of death.

## **5.8 Location of Bodies**

Few studies have looked at where the bodies of the deceased were found after the murder-suicide event. Even when this is recorded, no theories have been generated as to why these particular areas were chosen.

Berman (1977) reported that in the USA, the majority of the crimes occurred inside the house of the deceased. In Japan, Sakuto (1995) studied 27 cases finding that more than 50% of the crimes took place in the homes of the victims. Fourteen percent of the crimes took place in a car. The South African studies did not report where the bodies were located at the time of death.

In 47 out of the 52 (90.1%) cases in England, the exact location of the body was recorded. Most victims and perpetrators were found in their home, with the bedroom being the most frequent location (Milroy, 1993). In Canada, Cooper & Eaves (1996) found that 29% of murder-suicides took place in their own home and 36% took place in a public place.

Where the location of the bodies of the deceased has been recorded, most were found in the home of the victims or perpetrators.

## **5.9 Time of Death**

Studies investigating the seasonality, day of the week or time of day when the murder-suicide event occurred are limited.

### **5.9.1 Time of Year**

Berman (1977) found that in the USA, spring and autumn months were most common times for murder-suicides to take place. Danto (1978) reported that there was a slight decrease in murder-suicides over the mid-summer months.

Within South Africa, the HSRC study found that the majority of family murders occurred in the autumn months, between March and May (Olivier et al., 1991).

Seasonal variations in suicide, showing a spring peak and winter nadir, have been observed since the early 19<sup>th</sup> century (1897, Durkhem, in Descoins & Wassenaar, 2000). It has been hypothesized that bioclimatic factors affect circannual rhythms in specific biochemical processes that are associated with a vulnerability to stress (Maes, De Meyer, Thompson, Peeters & Cosyns, 1994, in Descoins & Wassenaar, 2000). The annual rhythm of suicides appears to be correlated with climatic variables such as sunlight duration and humidity (Linkowski, Martin & Maertelaer, 1992, in Descoins & Wassenaar, 2000).

South African suicide research found that there were seasonal peaks towards spring and autumn (Flisher et al., 1997, in Wassenaar et al., 2000). Suicide statistics for the Pietermaritzburg region appeared to show that fewer suicides occurred in winter although this was not statistically significant (Wassenaar et al., 2000).

Murder-suicide studies that have recorded the season when the event occurred are limited. Those studies that have seem to show autumn and possibly spring as more popular than other seasons.

### **5.9.2 Day of Week**

Very few studies have noted the day of the week when the murder-suicide took place. Berman (1979) noted that 60% of the crimes occurred on a weekday. Danto (1978) found that most incidents took place at the beginning of the week. No hypotheses have been generated for this.

Within South Africa, the HSRC study found that no specific day of the week could be singled out when a family murder was most likely to occur (Olivier et al., 1991).



Suicide statistics in the USA showed that suicides peaked on Mondays but these trends differed in strength by age and sex (Chew & McCleary, 1994, in Lester, 2000). Other studies have found a peak on Mondays or Thursdays (Maldonado & Kraus, 1991; Schneider & Greenberg, 1994; Chia, 1981; Hassan, 1994, 1995; all in Lester, 2000). All these showed variations in sex or age. A Pietermaritzburg study showed a trend towards a greater number of suicides over the weekend but this was not statistically significant (Wassenaar et al., 2000).

### **5.9.3 Time of Day**

The time of day of the murders and suicides has not readily been recorded. On most occasions, the perpetrator killed himself immediately after killing the victim and the same time was designated for both their deaths. There are however occasions when there may be a delay between the murder and the suicide from a few minutes to a few days.

In Japan, the occurrence rate of murder followed by suicide was highest, 52%, for the period 2:00am – 10:00am (Sakuta, 1995). The next highest occurrence rate, 26% was recorded for the time of evening until midnight. The occurrence rate was lowest during the daytime hours (19%). It is assumed from these findings that people became unstable mentally or thought about matters more intensely from midnight to early morning. Danto (1978) reported that most murder-suicides occurred at night.

South African research found that the victims were usually asleep at the time of the murder-suicide (Graser, 1987, in Olivier et al., 1991). It was found that the events occurred predominantly after the family had retired for the night (Olivier et al., 1991).

### **5.10 Previous Criminal Record**

It has been proposed that the presence of a previous arrest record is an index of a degree of superego failure in relation to community norms (Wolfgang, 1959). It was found that 33.3% of the perpetrators in Wolfgang's study had a prior arrest record. He found that between 42% and 62% of the victims had prior arrest records.

West (1966, in Abramsky & Helfman, 1999) found that suicidal murderers had fewer criminal convictions than non-suicidal murderers. Danto (1978) similarly reported that there was little evidence of previous criminal history in either the men or the women studied. In contrast, Berman (1977) found in his study that 50% of perpetrators had a prior arrest. Sixty percent of

these arrests were for crime against the person. Morton et al. (1988) found that a history of criminal activity was not routinely recorded. They did however find that 11% of the perpetrators were noted as having previously committed a violent crime.

Various studies (Cohen, 1998; Rosenbaum, 1990; Wallace, 1986) have reported a history of physical abuse in the perpetrator-victim relationship. It is likely that with a high incidence of physical abuse, arrests for domestic violence should be relatively common. It has been found that many times this is underreported (Morton et al., 1998). The literature has shown that there is similarly insufficient data available in order to accurately study an association between murder-suicide and a prior criminal record. This may be partly because the source of the data, such as coroners' reports, would often not contain this information. This therefore results in the number of prior arrests for any reason being underreported in murder-suicide studies.

The association between the perpetrator or victim and a history of a criminal record has been found to a varied degree. Some studies seem to suggest that murder-suicide is a very different phenomenon from homicide where previous criminal records are readily found (Abramsky & Helfman, 1999; Danto, 1978). Other studies (Berman, 1977; Morton et al., 1988) have found reports of prior arrest suggesting that there is a criminal element to murder-suicide. It is likely that due to the unavailability of data of prior domestic violence, previous arrests are underreported.

### **5.11 Physical Health**

Western murder-suicide studies have infrequently found that declining physical health of either the perpetrator or the victim is a significant variable. West (1965, in Easteal, 1994) found that a significant number of perpetrators were experiencing ill health. Berman (1979, in Easteal) found that only 5% of offenders were in poor health. Buteau et al. (1993) found that only one woman killed her chronically ill husband before committing suicide although physical disorders were found in 13% of the perpetrators. Milroy's (1995) study showed that 10% of those involved in the murder-suicide were in ill health. Allen (1983) noted that in her study in Los Angeles, 26% of the suicides had a serious physical illness.

Cohen et al. (1998) specifically studied murder-suicide in elderly couples in various regions in Florida. In the first region, it was suggested that both the perpetrator and victim were ill or

in failing health. Pain and suffering was reported 25% of the time for perpetrators and 33% of the time for victims. Health issues were found to be less frequent in the second region. As in the first region, the victims were reportedly more ill than the perpetrators.

In contrast to the Western studies, a Japanese study found that physical health was a significant variable. Sakuto (1995) found that 52% of murder-suicides were due to illness and/or economic hardship.

Marzuk et al. (1992) noted how individuals with AIDS were among those who were terminally ill and killed their lover or spouse before committing suicide. There seems to be a marked lack of literature in South Africa with regards to the role of an individual's status of HIV/AIDS and how this influences the murder-suicide rate in South Africa. Osborne's (2001) survey of press reports between 1997 and 2001 found only one case out of 136 to be directly linked to a diagnosis of HIV. It is likely that the stigma associated with HIV/AIDS would prevent individuals sharing their diagnosis. Where the family is aware of such a diagnosis, there may be a tendency not to share this information about the deceased for fear of vicarious stigmatisation.

The Western studies seem to show a minority of murder-suicide events as directly related to the declining physical health of either the perpetrator or the victim, the exception being where murder-suicide research concentrated on elderly couples. On the other hand, the single Asian study showed that a high proportion of murder-suicides were motivated by the ill health of an individual. This discrepancy, albeit with only one Asian study, suggests that cultural factors may play an influential role. There are limited findings of correlations between illness and murder-suicide in South Africa although it is suspected that HIV/AIDS related cases are underreported.

## **5.12 Presence of Suicide Notes**

Few studies document the presence and detail of suicide notes left at the scene of the crime. Only Western studies have studied the prevalence of suicide notes with regards to murder-suicide.

Berman (1977) reported that 30% of the perpetrators left suicide notes. Allen (1983) found that in Los Angeles, 14% left suicide notes. Fourteen of the 15 notes were left by men

although it is noted that 93% of the perpetrators in the study were men. It has been found that females more commonly than men leave suicide notes (Cohen & Fiedler, 1974, in Maris et al., 2000). Milroy (1995) found that out of his 52 cases, 27% of the assailants left suicide notes.

These findings do not vary considerably from the statistics of notes left behind in suicide. It has been found that a minority of those who commit suicide leave suicide notes (Maris et al., 2000). Tuckman, Kleiner and Lavell (1959, in Maris et al., 2000) reported the prevalence of suicide notes to be 24% out of the 742 suicides they studied. Cohen and Fiedler (1974, in Maris et al., 2000) reported a similar finding where only 21% of 1000 suicides wrote notes.

It can be seen from the above that where recorded, 14% to 27% of the perpetrators of murder-suicide left suicide notes. This finding is similar to studies of suicide where only 21% to 24% have been found to leave suicide notes.

### **5.13 Toxicological Findings**

There is a complex relationship between the use of alcohol, other substances and violent behaviour. The relationship becomes more complex when alcohol intoxication, substance abuse and at times chronic organic conditions co-occur (Olivier et al., 1998).

Numerous studies have looked at the association between alcohol intoxication and violent behaviour. Several studies (Coid, 1981; Meyers, 1982; Roberts, 1988; all in Olivier et al., 1998) have found empirical proof of this association. Alcoholism is known to contribute towards homicide (Gottlieb, 1988, in Ferreira de Castro et al., 1991) and suicide (Berglund, 1984; Miles, 1977; Roy & Linnoila, 1986; all in Ferreira de Castro et al., 1991). Ferreira et al. (1991) postulated that the link between murderers and suicides was plausible with regards to alcoholism because alcohol intensifies both aggression (Gottlieb, 1988, in Ferreira de Castro et al., 1991) and depression (Weissman, Pottenger & Kleber, 1972; Woodruff & Clayton, 1972; Winour, 1972; both in Ferreira de Castro et al., 1991).

The relationship between other psycho-active substances and violent behaviour has been studied to a lesser degree (Stine, Patric & Molina, 1982; Tamm, 1985; both in Olivier et al., 1988). Psycho-active substances taken in high dosages affect brain systems that regulate

reality testing and insight, and this in turn may lead to violent behaviour (Senay & Wettstein, 1983, in Olivier et al., 1988).

Cannabis intoxication alone is seldom associated with violent behaviour. Intoxication with cannabis and alcohol simultaneously is associated with violent behaviour less frequently than alcohol intoxication on its own. However, cannabis-precipitated psychosis has been reported to lead to violent behaviour (Solowij, 1998).

There is a strong statistical correlation between cocaine use and violence (Harruff, Francisco, Elkins, Phillips & Fernandes, 1988; Spitz, 1989; both in Olivier et al., 1988). With regards to amphetamines, intoxication and abuse are associated with violence resulting from panic, emotional lability, lowered impulse control and paranoia (Ellinwood, 1971, in Olivier et al., 1988). Both amphetamine and cocaine use can increase impulsivity, volatility, paranoia and grandiosity (Marzuk & Mann, 1988, in Olivier et al., 1988).

The relationship between alcohol and suicide has been studied to a large degree (Wihelmsen, Emfeldt, & Wedel, 1983; Boyer et al., 1992; Klatskly & Armstrong, 1993; Beck & Steer, 1989, all in Maris et al., 2000). These studies have reported an excess of alcoholics among completed suicides. They also found that suicides were more likely to have an Axis I diagnosis of alcohol or drug dependence than were people in the general population or those dying in motor vehicle accidents.

Western studies have usually found that alcohol is frequently consumed before the murder-suicide event. Wolfgang (1958, in Felthous & Hempel, 1995) found that perpetrators of murder-suicides were less likely to have consumed alcohol whereas West (1967, in Danto, 1978) found that excessive drinking was a predisposing factor in murder-suicide. Berman's (1977) study showed that 40% of the perpetrators had a positive blood alcohol level whereas the victims were consistently less likely to be drinking. In Los Angeles (Allen, 1983), 21% of the offenders, and 12% of the victims were considered intoxicated at the time of the event.

In Miami, (Copeland, 1985, in Milroy, 1995) 50% of offenders tested had alcohol in their blood. Only 16% of victims had a recordable alcohol level suggesting that they may have consumed a small amount of alcohol that could not be traced. Cantor and McTaggart (1998)

reviewed blood alcohol levels (BAC) for all murder-suicides in their study. Twelve percent had levels greater than 0.05% and 9% had levels of less than 0.05%

Cooper and Eaves (1996) found that 10% of the perpetrators, and 7% of the victims were under the influence of street drugs.

Various studies have looked for a history of alcohol or drug abuse rather than only focussing on whether the perpetrator or victim was intoxicated at the time of the crime. Rosenbaum and Bennet (1986, in Marchetti et al., 1992) found that five of the six (83%) patients in their study had a history of alcohol or drug abuse. Rosenbaum's (1990) study of 12 couples found that four (33%) of the perpetrators and one victim (8%) were involved in alcohol or drug abuse. Milroy (1995) found that three out of 52 perpetrators (6%) in his study were alcoholics. In a later study, a history of substance abuse was noted in 18% of perpetrators, 94% of who were reported to have had a history of alcoholism (Morton et al., 1998).

A Japanese study (Sakuto, 1995) did not investigate any link between substance use and murder-suicide. There is no known South African data on the prevalence of alcohol and murder-suicide.

It has been proposed that alcohol should be considered more as a facilitator of murder-suicide rather than a direct cause (Allen, 1983; Nock & Marzuk, 1999). The use of drugs and alcohol should be considered a risk factor for murder-suicide because these substances disinhibit behaviour, impair judgement, induce paranoia or exacerbate depression. It has been found that substance abuse may play less of a role in murder-suicide than in either simple homicide or simple suicide. Certain studies have shown that 50 to 70 percent of murderers but only 30 to 55 percent of murder-suicide perpetrators had alcohol detectable in their blood autopsy (Wolfgang 1958; Rosenbaum, 1990; Wallace, 1986; all in Nock & Marzuk, 1999).

Marzuk et al. (1992, in Cantor and MacTaggart, 1988) found that alcohol was present in between 12% to 50% of murder-suicides. A history of alcohol or drug abuse has been found to varying degrees. In most cases the perpetrator was intoxicated while the victim was found to be less likely to have been drinking at the time of the event. Alcohol was considered a facilitator rather than a direct cause of murder-suicide because it increases the risk of violence and reduces the individual's resistance to social controls (Allen, 1983).

#### 5.14 Summary

The above review of the demographic categories show that the most common profile of a murder-suicide perpetrator was a White male in the 30 to 40 year age group who would usually kill his spouse or lover with a firearm before shooting himself. The victims were likely to be female and were usually younger than the perpetrator. The perpetrator would less frequently be female. Where this was the case, she would be White and would be 30 to 40 years old. She would usually kill her child and herself while sparing her spouse and using a method that did not involve guns. Those involved in murder-suicides would usually belong to the middle to higher socio-economic class.

Where data was available, it seems that murder-suicide cases were most likely to have occurred in the home of the deceased. The few studies investigating seasonality found that most events occurred in autumn and spring. The limited data available found that the crimes occurred during the week and at night.

It is suspected that a prior criminal history of those involved in the murder-suicide was underreported. Alcohol was present in 12% to 50% of the perpetrators but was viewed as a facilitator rather than a cause of the murder-suicide event. Declining physical health was not seen as a particularly strong motive for the killings unless those involved were elderly.

It is clear that very little systematic data has been collected in South Africa because exploratory methods or press reviews have been the choice of methodology. This study will explore an alternative methodology. A methodology founded on the above international studies will be utilized with the aim of collecting data that will be comparable to these studies. The following chapter will discuss the specific aims of the research and how this relates to the choice of research method.

## CHAPTER 6

### RESEARCH AIMS

#### 6.1 Broad Aims

This study is situated within the broader aim of a larger, international collaborative study conducted in conjunction with The Colorado State University, co-ordinated by Dr S Canetto. The aim of this collaborative study is to track and analyse murder-suicide cases both in the USA and in South Africa.

This research will be the pilot for a larger study to be conducted throughout the five major centres of South Africa. The national project entails the collection of retrospective data via press reports (Osborne, 2001), followed by a separate prospective study of further incidents tracked and analysed by a specifically developed format being tested in this pilot study. The broad aim of the national study is to provide an indication and scope of the nature of this problem within South Africa, and these results will be compared with simultaneous collection of such data in the USA. It is hoped that this work will in turn contribute to the local and international capacity to design and implement preventive programmes in this area.

The first part of the national study involving the press survey was completed in 2001 (Osborne, 2001). Newspaper articles were surveyed from 01 January 1997 to 01 January 2001. A convenience sampling method was used to select newspapers for surveillance. A total of 136 articles from 19 newspapers across all provinces of South Africa were obtained. For linguistic purposes, only English newspapers were selected. These newspapers were: *Cape Argus, Cape Times, Citizen, City Press, Daily News, Eastern Province Herald, Independent on Saturday, Mail & Guardian, Natal Mercury, Natal Witness, Post, Pretoria News, Saturday Star, Star, Sowetan, Sowetan Sunday World, Sunday Times, Sunday Tribune*. The second part of the national study will be initiated using the results and recommendations of this pilot study.

This pilot study is also in collaboration with the Department of Forensic Pathology at the University of Natal, Nelson R Mandela Medical School, Durban. The Department of Forensic Pathology has access to recent police and forensic pathology records of murder-



suicides, and is collecting murder-suicide data as part of a larger study on domestic violence. This study is contributing to the Medical Research Council Surveillance study of unnatural deaths.

## **6.2 Specific Aims**

This study aims to investigate the incidence of murder-suicide in Durban, KwaZulu-Natal, as well as the factors related to this. The results and recommendations of this will serve as a pilot study for the broader national study. It is hoped that the results from this study will be used to design further research and hypothesis testing.

Until now, there has been very little research conducted in South Africa on the subject of murder-suicide, the last published study being in 1992. There are currently no base rates for murder-suicide within South Africa. There is therefore a need for new research, particularly so because of the many political and social transformations that have taken place in South Africa since the early nineties, and the apparent increase in media reports of murder-suicides locally and internationally in the past five years.

Although this is a pilot study, this initial research will hopefully add to the limited South African research on murder-suicide. The research will also provide provisional demographic profiles of perpetrators and victims, particularly in relation to characteristics such as sex, age, race, level of intoxication, method of death, socio-economic status and the relationship between victim and perpetrator. This can then be compared with results from earlier studies both within South Africa and internationally.

Lastly, this pilot study will serve as a means of identifying limitations in the research of murder-suicide in South Africa. Past South African studies have utilised methods of press reviews (Graser 1987, in Olivier et al., 1991; Osborne, 2001) or descriptive, exploratory methods (Olivier et al., 1991) as was used by the largest South African study to date. Descriptive techniques in particular provide opportunity to produce rich data but because there is little standardization and few controls, there is limited scope to obtain comparative data. This particular study will use a methodology similar to that used in many previous studies (Buteau et al., 1993; Hanzlick & Koponen, 1994; Milroy, 1993) and one that has been tested internationally. The study will allow an opportunity to test the methodology on the South African population.

The method used during this study is the model of that which is to be used for the national study. This will therefore form a basis to test the validity and reliability of the methodology so that it can be refined for implementation in the broader research project (Neuman, 2000).

### **6.3 Summary**

This study is situated within the broader aim of a larger, international collaborative study conducted in conjunction with the USA. These aims are:

- To track and analyse murder-suicide domestically and internationally
- To provide an indication and scope of the nature of this problem within South Africa
- To design and implement preventative and intervention programmes

The specific aims of the Durban study are:

- To investigate the incidence of murder-suicide in Durban, KwaZulu-Natal
- To generate demographic profiles for the sample under study in order to add to the limited South African research
- To compare the results with previous domestic and international studies
- To serve as a pilot study for the methodology that will later be used for the establishment of national base rates

## CHAPTER 7

### METHODOLOGY

#### 7.1 Introduction

Murder-suicide has not been widely researched in South Africa. For this reason, various research methodologies have not been extensively explored in the South African context. The choice of the research methodology for this study has therefore been based on international studies where murder-suicides have been more systematically explored.

The methodology used will be examined in terms of the research problem, the operationalism of the goals of the research and the data analysis. Ethical considerations will also be discussed.

#### 7.2 Research Problem

In South Africa as in the USA, there is no operational national surveillance system for tracking murder-suicides and therefore the annual incidence of these events is difficult to determine (Nock & Marzuk, 1999). Murder-suicides are currently recorded as a separate murder case and a separate suicide case at the Department of Forensic Health, with the police and in the courts.

Within South Africa there are currently no statistics representing the incidence of murder-suicide nor are there any base rates denoting the demographic characteristics for this phenomenon. Limited previous studies have explored murder-suicide qualitatively (du Toit, 1990, in Osborne, 2001; Olivier et al., 1991) or have alternatively reviewed the representation of murder-suicide in the press (Graser, 1987, in Olivier et al., 1991; Osborne, 2001). These studies have formed a basis for understanding the concept of murder-suicide within the South African context. Systematic data was however not collected and comparative demographic statistics were not generated.

This study begins to address the lack of statistical information in the form of demographic characteristics by pioneering a method for the establishment of more accurate base rates in order to present a realistic picture of the scope and effect of murder-suicides within South Africa. It also aims to build the foundation for international comparison. The study does so

by generating demographic profiles of perpetrators and victims of murder-suicide within a particular region of South Africa. This will hopefully form the basis for a separate, broader study where demographic profiles of murder-suicide victims and perpetrators for all of South Africa will be generated.

### **7.3 Operationalism of Goals**

#### **7.3.1 Choice of Methodology**

The study involves basic research and is exploratory in design with its aim being to investigate the phenomenon of murder-suicide in the South African social context. The study is purely quantitative in nature as a result of its aim being to obtain demographic profiles. This is a retrospective study. The subjects are all deceased and interviews with survivors or next of kin as well as information from newspaper reports have been excluded where they were available. The results will be discussed from a psychodynamic perspective following the trend of many previous studies (Abramsky & Helfman, 1999; Berman, 1977; Danto, 1978; Rosenbaum, 1990).

It was decided that coroners' or district surgeons' reports would be examined in order to access accurate data. Under South African law, the body of each individual who dies from unnatural causes is sent to state mortuaries for an autopsy to be performed to determine the exact cause ("SA's dead speak," 2001). For the purpose of this study, it ensured that the precise manner of death at a specified mortuary was reported. This information was enhanced with corresponding police reports. This data was coded and analysed quantitatively. Due to the limited number of murder-suicide studies, it was initially unclear as to what the obstacles to finding and gaining access to data would be. For this reason, further qualitative analysis using interviews of survivors or next of kin were not attempted in order to substantiate the findings.

It was felt that it would be most practical to use this study to generate a pilot sample of accurate and current demographics of murder-suicide in the city of Durban. These demographics could then be used in subsequent projects to generate hypotheses and to form a basis for more exploratory South African research.

The use of coroners' or district surgeons' reports is a method that has been tested extensively in previous studies. In the USA, Morton et al. (1998) scanned the computerized database of

the Office of the Chief Medical Officer. This information included a medical and social history, death certificate, toxicology report and autopsy report. Other international studies using coroners' or medical examiners' reports include Berman (1977), Milroy (1993), Buteau et al. (1993), Hanzlick and Koponen (1994) and Cohen et al. (1998). Cooper and Eaves (1996) used coroners' reports, forensic reports, mental health files as well as police files to collect data around murder-suicide. This study has employed a technique very similar to that employed in the above international studies. The use of a similar technique allows for comparison of the findings with the previous results of international studies.

Various other studies have used a popular alternative methodology of examining newspaper reports to collect information on murder-suicide (Danson & Soothill, 1996; Graser, 1987, in Marchetti et al., 1992; Osborne, 2001). Danson and Soothill (1996) critiqued this method from the standpoint that newspapers often gave a distorted impression of the relative frequency of different types of crime in that the more dramatic or bizarre offences were over-presented when compared with others. There is also the problem of crimes in less populous and more rural regions being underreported and less adequately represented by press reports (Osborne, 2001).

Other methodology less frequently employed in murder-suicide research is that of exploratory case studies (Olivier et al., 1991) that are analysed qualitatively. Although such research produces very rich data, the difficulty lies in the process of reducing the material to manageable proportions and abstracting certain types of information from it (Bannister, Burman, Parker, Taylor, & Tindall, 1994). This type of qualitative research would be inappropriate for this particular study as a specific aim is to pioneer the development of base rates on which to establish future research. Quantitative methodology seems to be the most effective means of deducing base rates.

### **7.3.2 Sample Selection**

Contact was made with a number of district surgeons at the mortuaries in the province of KwaZulu-Natal. The magistrate's office in Pietermaritzburg was contacted as well as the Inquest Court. These unsuccessful preliminary attempts in finding suitable data verified assumptions that there is no recognised system of recording murder-suicide as a discrete event.



Collaboration was sought with The Department of Forensic Medicine at The University of Natal, Nelson R Mandela Medical School, in Durban. This department was interested in murder-suicide cases as part of their larger study on domestic violence within South Africa. This study also involved collecting such data as part of a Medical Research Council Surveillance study of unnatural deaths. The Department of Forensic Medicine provided access to the Department of Forensic Health in Durban where cases of unnatural deaths from 2001 were being reviewed daily to detect cases of domestic violence. Collaboration with this domestic violence study meant that murder-suicides as a subcategory of domestic violence cases were flagged. A survey of cases for the year 2000 was carried out and murder-suicide cases for that year were identified.

Cases were selected based on the definition of murder-suicide by Marzuk, Tardiff and Hirsch (1992, in Marzuk et al., 1999) whereby a murder-suicide has occurred when a person has committed homicide and subsequently commits suicide within one week of the homicide.

Cases where a victim was killed and a serious yet unsuccessful suicide attempt was made on behalf of the perpetrator were included, as were cases where there was an attempted murder followed by a fatal suicide. Only data from those who were deceased was used as the sample is designated by those people who died during murder-suicide events in the years 2000 and 2001. Criteria for exclusion included suicide pacts ( $n=1$ ) where a party's decision to die together was apparently mutual.

Each individual was classified by a post mortem file number. All post mortem examinations for murder-suicide cases were conducted at Gale Street Mortuary because this mortuary covers all medico-legal investigations in the Durban metro area. There is currently no coding system to identify the events of murder-suicide. A research assistant scanned the details of individual cases in order to document that person's death as part of the events of a murder-suicide. Individuals had initially been documented as either "murder" or "suicide" under the category "manner of death". It is therefore clear that without close scrutiny of the murder and suicide records, murder-suicide cases would not have been identified.

The result of this process was that the sample included all murder-suicides for the Durban Metropolitan (Metro) area (city of Durban) over the two-year period. The Durban Metro area consists of a mixed socio-economic status and a mixed racial distribution. Because Gale

Street Mortuary covers all medico-legal murder-suicide investigations in the Durban Metro area, the population at the mortuary is fairly consistent with the distribution of the population in Durban (A Sukhai, personal communication, February 24, 2003). Using this specifically defined sample, it was then possible to generate demographic profiles for the whole city of Durban.

### **7.3.3 Measuring Instrument**

All data gathered was coded into the Durban Metro Murder-Suicide Incidence Coding Form (Appendix A). This form was modified from a Homicide-Suicide Incidence Coding Form used in The USA in the study at The Colorado State University. This Homicide-Incidence Coding Form is that which is being used in the USA in the broader collaborative study.

As in the USA Homicide-Suicide Incidence Coding Form, a separate form was completed for each individual involved in a case. This method was similar to Morton et al.'s (1998) study where each case was coded as either a homicide or a suicide using a data abstraction form. In their study, as in the present one, a homicide-suicide event that involved more than one victim was reviewed and coded separately for each homicide although the corresponding suicide was coded only once.

The form was modified from the original so as to be more appropriate to the South African study. The categories from the original form remained essentially the same although the form was shortened as much of the detailed anatomical autopsy information was omitted. The Homicide-Suicide Incidence Coding form appears to use Marzuk et al.'s (1992) typologies in classifying the victim-perpetrator relationship. There is however a distinction between a couple or spousal murder-suicide that involves other family members from a murder-suicide that involves the couple exclusively. This same differentiation was used in the adapted Durban Metro Murder-Suicide Incidence Coding Form.

Pertinent sub-categories from the coding form used in the National Injury Mortality Surveillance Study of 1999 (NIMSS) were added to the Durban Metro Murder-Suicide Incidence Coding Form. Many of these sub-categories were not mentioned in the USA Homicide-Suicide Incidence Coding Form because they are familiar to South Africa. For example, under method of death, slashing by panga/axe was included in the Durban Metro Murder-Suicide Incidence Coding Form, as was death by motor vehicle.

Previous studies (Ferreira de Castro et al., 1991; Morton et al., 1998) studied the level of education and occupation and how these related to murder-suicide. Categories such as level of education and occupation were included using information that was available from the Department of Forensic Medicine. Occupations were categorised according to the typologies stipulated on the Statistics South Africa website ([www.statssa.gov.za](http://www.statssa.gov.za)).

The information from each form was fed into a database (Appendix B) and coded. This then formed the basis for the statistical analysis.

The measuring instrument was highly structured allowing little room for researcher interpretation and bias. The only bias may have been in the modification of the measuring instrument, the Durban Metro Murder-Suicide Incidence Coding Form due to the fact that the researcher was the person who decided how the form should be modified. Both the NIMSS form and the USA Homicide-Suicide Incidence Coding Form measure similar constructs to those the Durban Metro Murder-Incidence Coding Form measures. Criterion-related validity should therefore have remained intact (Durrheim, 1999).

After the initial data collection phase, the form was further adjusted where appropriate and all the data was coded using the adjusted form. Categories such as number and area of wounds were included into the form as this data was consistently reported. Body location options were increased. It has been argued that flexible and pragmatic designs are non-scientific and that bias may be introduced when designs are modified during the execution stage of the research. Many qualitative researchers however argue that fixed designs are restrictive and unsuited to much exploratory research (Durrheim, 1999). Mouton and Marais (1991) stress the importance of pre-testing to enable the researcher to determine the most important measuring instrument effects, and to eliminate them. It is noted that this study is in itself a pilot for a broader national study and that this measuring instrument is being piloted for the national study.

In order for standardized and systematic data collection to occur, the design of the measuring instrument entailed the inclusion of every category to be used in the data analysis process. Because the Durban Metro Murder-Suicide Incidence Coding Form was based on the Homicide-Suicide Incidence Coding Form developed in the USA, the results collated in this study will be able to be compared to international studies. While some South African studies



(Graser, 1987, in Olivier et al., 1991; Olivier et al., 1991) have used a number of the demographic categories as discussed in chapter 5, data collected has not been systematic due to the alternative research methods that have been employed. For this reason, the measuring instrument used in this study allows comparison with domestic data only where there is domestic data available.

#### **7.3.4 Data Collection Process**

As mentioned previously, this study is a pilot for a national study. The process detailed below aimed to identify limitations in the methodology in order to refine it for the national study.

As with most studies on murder-suicide, the research is retrospective. Information was largely gathered from the post mortem (PM) reports completed by the district surgeon during the autopsy examination. These reports were typed after the examination was completed and then signed by the same district surgeon. Specimens for drugs or alcohol were sent to a laboratory for toxicological analysis.

The data collection procedure involved several stages. These stages included the reviewing and coding information from the PM reports. Additional information such as the occupation and level of education of victims and perpetrators was extracted from official records at the Department of Forensic Health and from Gale Street Mortuary. The toxicological findings from the autopsies were completed at the Forensic Health Chemistry Laboratories in Braamfontein, Johannesburg, and were only available at the Department of Forensic Health six months after the post mortem examination had been completed.

The next stage of information gathering was to follow up each PM report with the corresponding police case number at the particular police station where the case had been investigated. In a number of instances there was no police case number listed ( $n=9$ ), while at other times the said police station had no records of the case numbers ( $n=4$ ). On some occasions where the killing had occurred in one home and where the post mortem examinations had both been conducted at Gale Street Mortuary, only one of the two parties involved had a corresponding police case number ( $n=2$ ). As suspected, most police cases revealed almost duplicate reports for the victim and perpetrator pairs. A missing case for one of the pairs did therefore not hamper the data collection. It did however highlight the inconsistencies in police reporting.

The additional data that was to be collected at the police stations was further hampered by irregularities in access to this data. Some police stations required a personal visit with a letter of authority from the university, others were able to pass the information over the telephone, and another required a letter of authority to be posted following which they would then mail the information via the postal system. As a result of these inconsistencies, information was gathered from police stations where possible and was used to substantiate the data. It was found that police data did not provide as much detailed information as was initially hoped. The reports contained most of the information already in the PM reports. Motives and circumstances around the death were sparse because those involved were deceased and there were no witnesses.

The study included only one researcher and a research assistant who initially flagged the murder-suicide cases. Due to the nature of the study, there were no interactions between the researcher or research assistant and the subjects, thereby eliminating bias that may have occurred as a result of those interactions. Reactivity, as defined as the reaction of human beings to the research situation (Campbell, 1957, in Mouton & Marais, 1991) became obsolete in a study such as this that is retrospective and where no subjects are directly involved in the research.

The work involved a survey of various data sources. Data that did not pertain to the murder-suicide study in any way was omitted. This same data was omitted for every individual in the sample group.

Occasionally, press reports were available to compare with or substantiate the data available. Although it would have been useful to obtain additional information around the motives and circumstances of the deaths, it was decided not to use this information for any of the murder-suicide cases as the reliability of some newspaper reports was questionable and press reports were at times clearly inconsistent with the official records.

In summary:

- The methodology is a pilot for a planned national study
- The data collection involved a series of stages
  - Post Mortem reports were reviewed
  - Additional information such as occupational categories and level of education were extracted from official sources at the Department of Forensic Health
  - Toxicological reports were reviewed
  - Corresponding police cases were followed up

#### **7.4 Statistical Analysis**

Due to the exploratory nature of the research as well as the reasonably limited sample size, descriptive rather than inferential statistics were employed. The aim of the descriptive statistical analysis was to enhance the meaning of the data by describing it in order to provide enlightenment on the characteristics of that group alone (Black, 1993). The sample size yielded inferential statistics unviable because the sample size was too small to be representative of a larger population (Durrheim, 1999). Furthermore, due to the varying demographics from province to province within South Africa, it was not possible to extrapolate the results to the national population. The result is that demographic profiles would be available only for Durban, KwaZulu-Natal

Coded data from the Durban Metro Murder-Suicide Incidence Coding Form was entered into SPSS (Statistical Package for the Social Sciences) V 11 in order to generate descriptive statistics. The data mostly represented a nominal level of measurement although there were limited ordinal scales.

Frequencies were calculated for the total sample using all the variables in the study. All variables were used to calculate the frequencies separately for both the victims and the perpetrators. Frequencies for differences between victim-perpetrator pairs were also calculated. The results from the analysis were then represented graphically in charts and tables.

Chi-square tests were used for further analyses where applicable. The chi-square test is a non-parametric statistical test. The results obtained could therefore not be generalised to a larger population. The aim of using the test in this study was to observe whether certain variables were significantly disproportionate or whether this was due only to chance (Neuman, 2000).

## **7.5 Ethical Considerations**

Murder-Suicide is a highly sensitive topic to many, in particular, where individuals have had direct or indirect personal involvement. Confidentiality and anonymity was preserved throughout the procedure as far as possible even though the criminal nature of some of these cases has defined them as matters of public record. However, due to the nature of the study there should be little, if any impact on surviving relatives and friends of the persons involved in the study. Care has been taken in the presentation of results to indicate patterns rather than identifiable individual records. It was therefore decided from the outset not to conduct interviews with survivors and next of kin.

## **7.6 Summary**

This research aims to lay a foundation for further exploration of the phenomenon of murder-suicide within South Africa. It is hoped that the results will be comparable to international and previous South African studies. The study serves as a pilot for a national study that will be in collaboration with a broader international study. The aim of this collaboration is to identify national and regional patterns and to develop interventions and preventative strategies for murder-suicide related deaths.

There is no standard method of data collection in murder-suicide studies because there is no standard method of tracking and recording murder-suicide cases. This particular study uses a method of analysing retrospective data in order to identify patterns and to generate demographic profiles for a particular sample.

Methodological limitations have been recognised and will be discussed further in section 9.5. Because this study is serving as a pilot, care has been taken to preserve validity and reliability as far as is possible so that difficulties are minimised in the national study.

The method described above is hopefully able to provide accurate results for the sample studied while simultaneously adding to the very limited South African research on this topic. The following section will discuss the results from the study that were obtained using the methodology discussed above.

## CHAPTER 8

### RESULTS

#### 8.1 Introduction

The results obtained in the investigation are presented in the current chapter. The incidence of murder-suicide in the sample under study will be presented first. Secondly, the demographic findings will be presented as well as the unavailability of certain demographic data will be discussed. Lastly, a description of typical demographic profiles will be presented.

#### 8.2 Incidence of Murder-Suicide in Durban

Murder-suicide cases were reviewed from January 2000 until December 2001:

Figure 1

*Manner of Death*

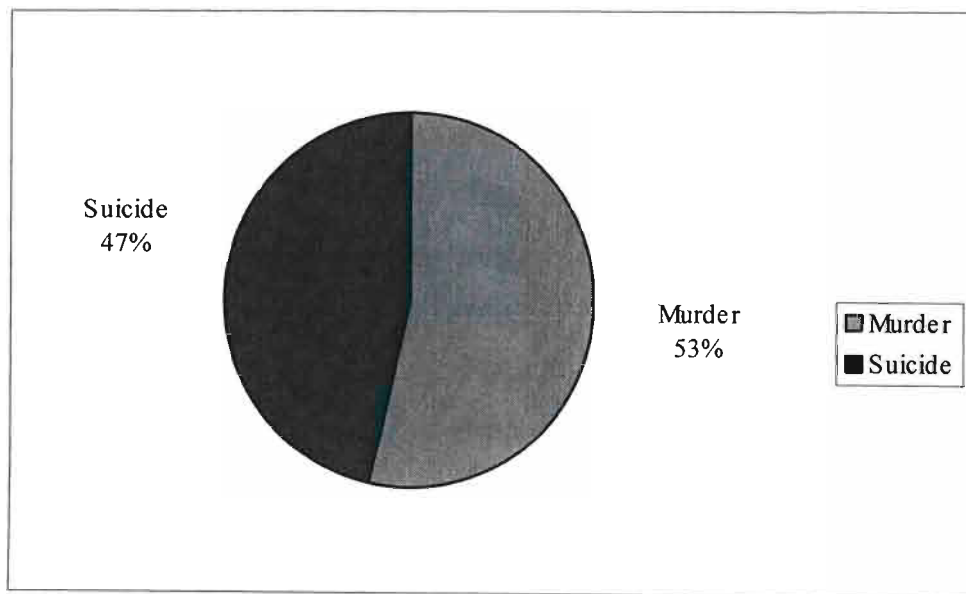


Table 1

*Frequency table for manner of death*

<b>Manner of Death</b>	<b>Frequency</b>	<b>Percent</b>
Murders	23	53
Suicides	20	47
Total	43	100

A total of 21 cases of murder-suicide were recorded at Gale Street Mortuary during 2000 and 2001. In these events, 43 individuals died (Table 1). Twenty-three individuals or 53% were murdered and 20 individuals or 47% committed suicide (Figure 1). There were 22 victim-perpetrator pairs.

The majority of cases involved only two individuals in the murder-suicide event. Three cases were reported where two individuals were murdered by the same perpetrator before he committed suicide (Appendix B).

In two cases, only one individual died as a result of the murder-suicide event. In the first instance, there was an attempted murder where a man stabbed his girlfriend and believing her to be dead, hanged himself. In the second instance, there was a non-fatal suicide attempt where the perpetrator shot and killed his girlfriend before shooting himself in the chest. He did not however die and drove himself to the police station.

There were in total 4737 non-natural deaths at Gale Street Mortuary over the two years 2000 and 2001. Murder-suicide represented 0.91% of all these non-natural deaths.

Table 2

*Homicide and suicide as a proportion of unnatural deaths*

<b>Year</b>	<b>Homicide</b>	<b>Percent</b>	<b>Suicide</b>	<b>Percent</b>
2000	1111	47.0	172	7.3
2001	1054	44.5	152	6.4
Total	2165	91.5	324	13.7

As can be seen in Table 2, a total of 1111 homicides were reported at Gale Street Mortuary in the year 2000. This represents 47% of non-natural deaths at the mortuary for the year. That same year, 172 suicides were reported at the same mortuary. This represents 7.3% of all non-natural deaths for the year (A Sukhai, personal communication, February 4, 2003).

In the year 2001, a total of 1054 homicides were reported at Gale Street Mortuary, representing 44.5% of all unnatural deaths. One hundred and fifty two suicides were reported at the mortuary for the year. This represents 6.4% of all non-natural deaths.

Over the two years, 20 out of 324 individuals who committed suicide, committed homicide before doing so. This represents 6.8% of the population of suicides at Gale Street Mortuary.

Over the two years, 23 individuals were victims of murder-suicide events. A total of 2165 individuals died as a result of all homicides for that same period. These findings show that murder-suicide victims represented 0.01% of all homicides for that period. There were 43 people in total who died from murder-suicide events. This shows that murder-suicide deaths accounted for 0.02% of all homicides.

The Durban Metro area has a total population of 2 259 304 ([www.urbstrat.org.za](http://www.urbstrat.org.za)). If the incidence is calculated using the number of perpetrators of murder-suicide, then the incidence for Durban is 0.89 per 100 000 population. If the incidence rate is calculated using the total number of people that died in murder-suicide events, then this would be 1.9 per 100 000.



8.3 Demographic Findings

8.3.1 Sex

Figure 2  
*Distribution of total sample by sex*

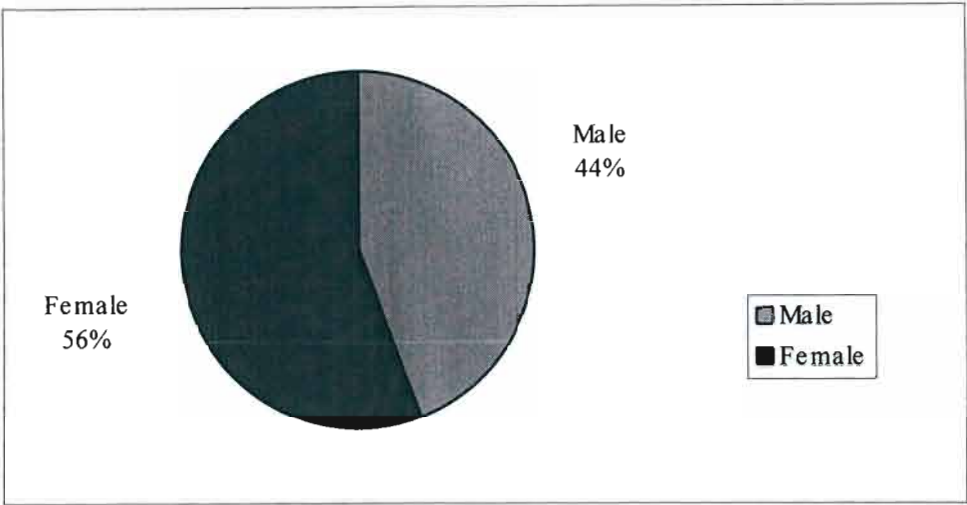


Table 3  
*Frequency table for distribution of sex of perpetrator*

Sex of Perpetrator	Frequency	Percent
Male	19	95
Female	1	5

Table 4  
*Frequency table for distribution of sex of victim*

Sex of Victim	Frequency	Percent
Male	0	0
Female	23	100

Table 5

*Chi-Square Goodness-of-Fit test for sex of perpetrator*

Chi-square*	29.98
Degrees of Freedom	1
Asymp. Sig.	0

*Note.* \*0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 8.84.

As illustrated by Figure 2, 56% of the individuals who died in the murder-suicide events were female while 44% were male. Ninety five percent of the perpetrators were male, and 5% ( $n=1$ ) were female (Table 3). All victims were female (Table 4). As is illustrated by Table 5 a significantly high proportion ( $\chi^2=29.98, p<.05$ ) of perpetrators were male and therefore a significantly disproportionate number of females were victims.

### 8.3.2 Age

Figure 3

*Age of victims and perpetrators*

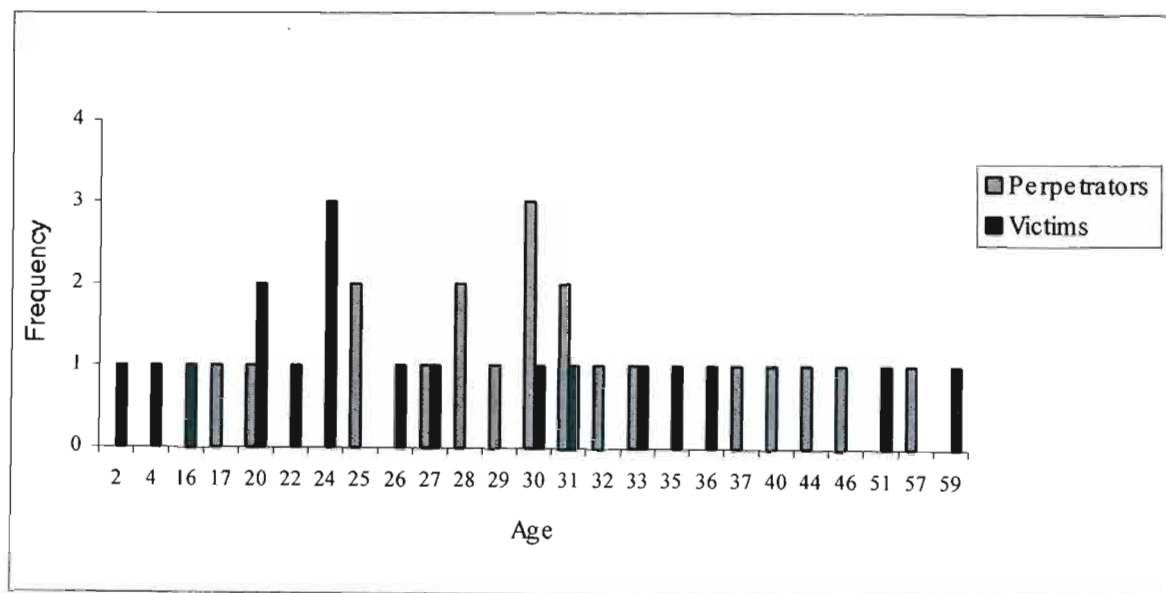


Table 6

*Mean and mode of perpetrators and victims*

	Age Total Sample	Perpetrators	Victims
<b>Mean</b>	29.6	32.0	26.0
<b>Mode</b>	31.0	30.0	24.0

Figure 3 illustrates that most commonly, the perpetrator was 30 years old while most victims were 24 years old. In all but one instance the perpetrator was male (see Table 3). The only female perpetrator was 20 years old (Appendix B). Perpetrators ranged from age 17 to age 57 years. Two of the victims were children, aged two-years and four-years. The oldest victim was 59 years old. The mean age for all those individuals involved in the murder-suicide events was 29.6 years.

The mean age for all the perpetrators was 32 years while for the victims, the mean was 26 years. Six out of the 20 perpetrators were below the age of 30 and 14 were 30 years old or above (Table 6).

Figure 4

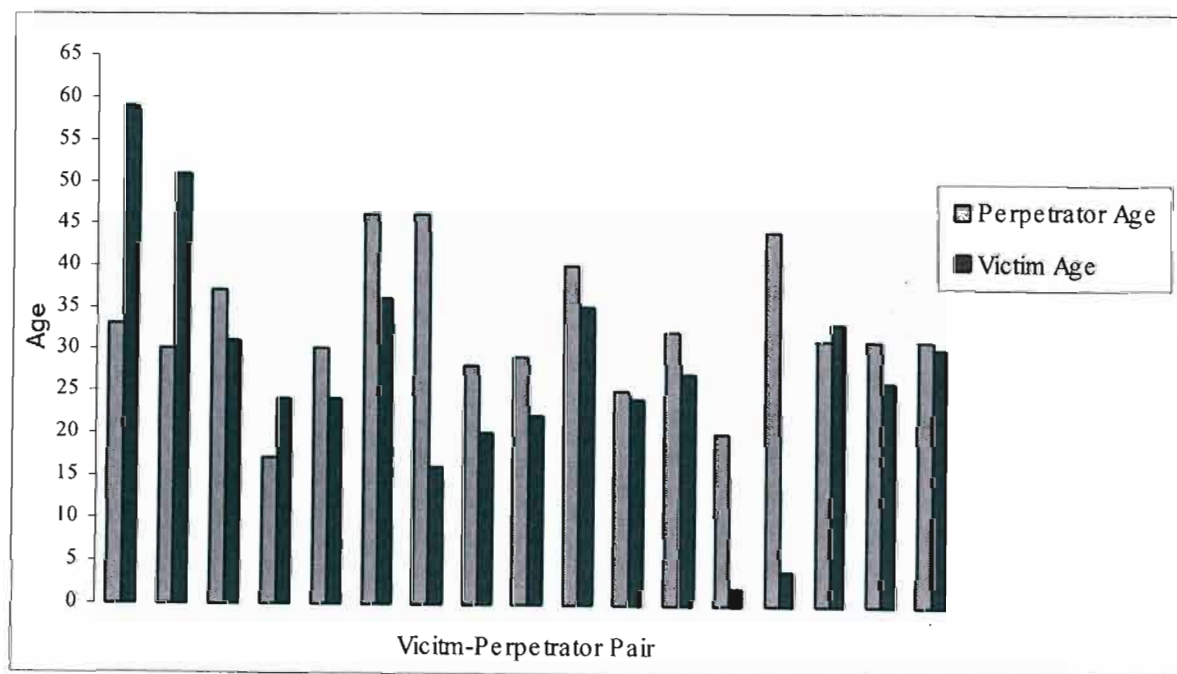
*Age per victim-perpetrator pair*

Table 7

*Frequency table for age difference between victim and perpetrator*

<b>Perpetrator</b>	<b>Victim</b>	<b>Difference</b>
44	4	40
46	16	30
33	*59	26
30	*51	21
20	2	18
46	36	10
28	20	8
17	*24	7
29	22	7
37	31	6
30	24	6
40	35	5
32	27	5
31	26	5
31	*33	2
25	24	1
31	30	1

In five of the victim-perpetrator pairs, the age of the female victim was unknown (Appendix B). Of the remaining 17 victim-perpetrator pairs, 13 of the perpetrators were older than the victims (Figure 4). As is illustrated by Table 7, the victim was older than the perpetrator in only four cases (\*). The differences in ages varied (Table 7). The mean age difference was 12 years.

### 8.3.3 Race

Table 8

*Frequency table for distribution of race*

<b>Race</b>	<b>Subtotal</b>	<b>Frequency</b>	<b>Percent</b>
Black	38		88.4
Perpetrator		18	
Victim		20	
Indian	5		11.6
Perpetrator		2	
Victim		3	
Total	43	43	100

Thirty-eight out of a total of 43 (88.4%) individuals who died in the murder-suicide events, were Black. Five individuals (11.6%) were Indian. Of a total of 21 cases, there were two Indian perpetrators and 19 Black perpetrators (Table 8). There were no other race groups involved in the incidents. There were no racial differences between the victim and perpetrator. (Appendix B).

Table 9

*Frequency table for distribution of race for the province of KwaZulu-Natal*

<b>Race</b>	<b>Frequency</b>	<b>Percent</b>	<b>Murder-Suicide</b>
Black	6 880 652	81.7	88.4
Indian	790 813	9.4	11.6
White	558 182	6.6	0
Coloured	117 951	1.4	0
Unspecified/Other	69 423	0.8	100

The 1996 national census showed that in the province of KwaZulu-Natal, the largest portion of the population was Black representing 81.7% of the province. The second largest group was Indian making up 9.4% of the population in the province. Third largest, was the White population, making up 6.6%. The smallest proportion of the population, 1.4%, consisted of

the Coloured population. The remainder of the population was made up of 0.8% of unspecified race (Table 9) ([www.statssa.gov.za](http://www.statssa.gov.za)).

These results show a slight overrepresentation of the Black and Indian population and a slight under representation of the White and Coloured population. It was not possible to use a chi-square test on the distribution of race because of the small sample size as well as the unavailability of an appropriate race distribution for the city of Durban.

### 8.3.4 Relationship between Victim & Perpetrator

#### 8.3.4.1 Relationship between Couples

Figure 5

*Classification of relationship between victim and perpetrator*

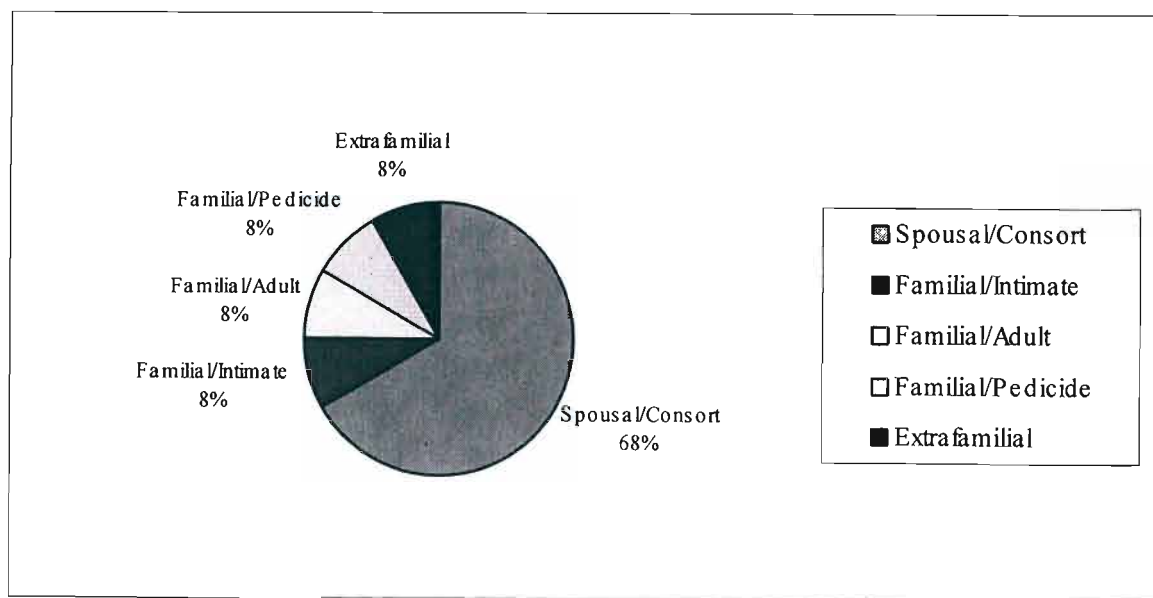


Figure 6

*Breakdown of classification of spousal/consortial*

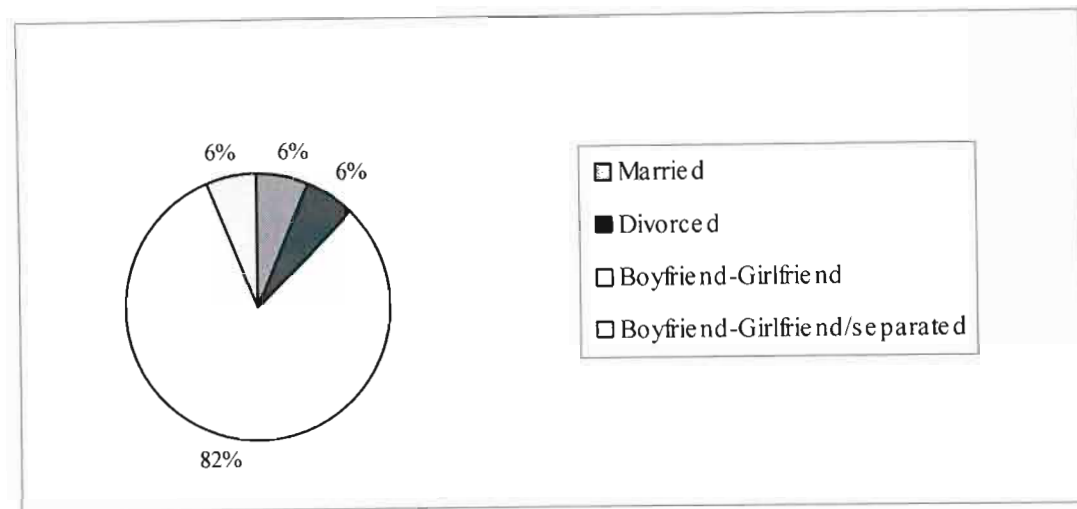


Table 10

*Frequency table for relationship per victim-perpetrator pair*

Relationship	Frequency	Percent
Boyfriend-girlfriend	13	54.2
Married	3	12.5
Other relative	2	8.3
Extrafamilial	2	8.3
Parent-Child	1	4.2
Parent-Stepchild	1	4.2
Divorced	1	4.2
Boyfriend-girlfriend/separated	1	4.2

Sixteen couples (68%) were classified as spousal/consortial (Figure 5). Of the total sample, 13 (54.2%) of the relationships were classified as being a boyfriend and a girlfriend whereas only one (4.2%) was explicitly classified as being an ex-boyfriend and an ex-girlfriend. One other couple (4.2%) was divorced.

Three victim-perpetrator pairs were married (Table 10). One of these perpetrators killed only his wife and himself. In two of the cases, the perpetrators killed another relative, in one case his stepdaughter, and in the other case his granddaughter, as well as killing their wives in the same event (Appendix B). The victim-perpetrator pairs were in these second two cases

classified as familial/intimate for the killing of the wife by the husband, rather than spousal/consortial when only the couple is involved in the killing. This means that of the 68% classified as spousal/consortial, only 6% were married (Figure 6). The largest proportion, 82%, was classified as a boyfriend and a girlfriend.

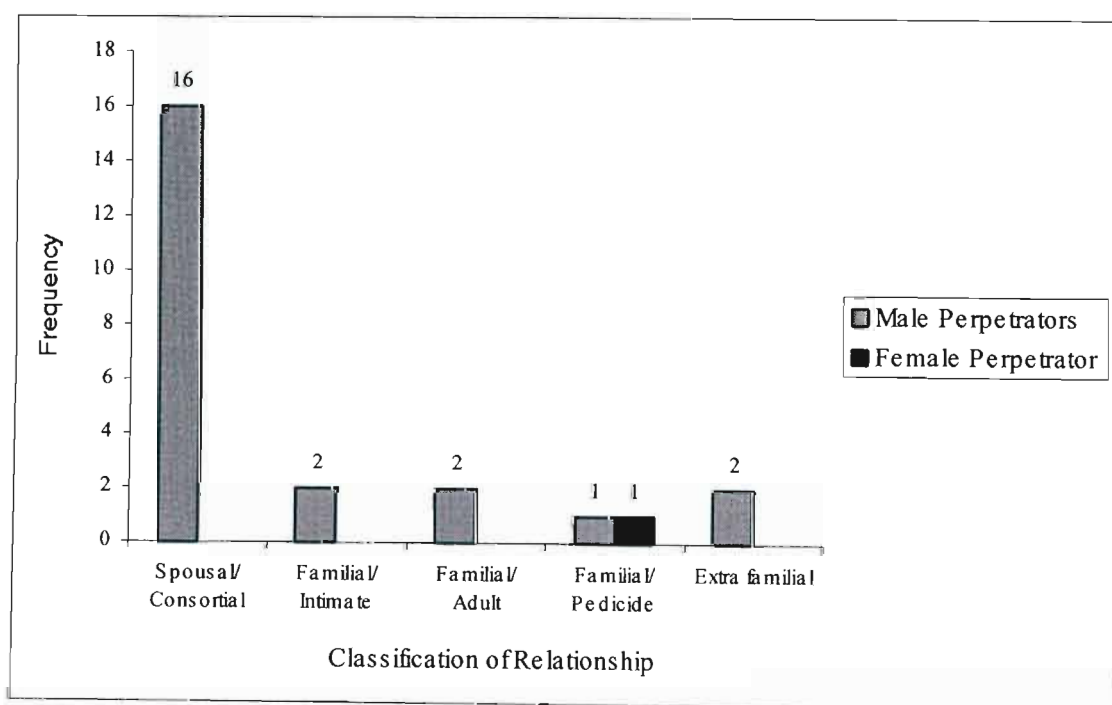
As can be seen in Figure 5, there were two victim-perpetrator pairs (8%) where the killings were extra-familial. The perpetrator killed his brother's girlfriend as well as her best friend before killing himself.

Most cases were classified as spousal/consortial murder-suicides because they involved couples only. The majority of these couples were a boyfriend and a girlfriend. The perpetrator killed more than one member of his family before himself in two cases (8%).

#### 8.3.4.2 Classification of Relationship Related to Sex

Figure 7

*Classification of relationship per victim-perpetrator pair*



Out of 20 cases where there was a male perpetrator, one female adult was murdered or an attempt was made on her life. In only two instances did the male perpetrator kill another adult



and a child relative before killing himself. The only female perpetrator killed her child before killing herself. She did not kill another adult (Figure 7).

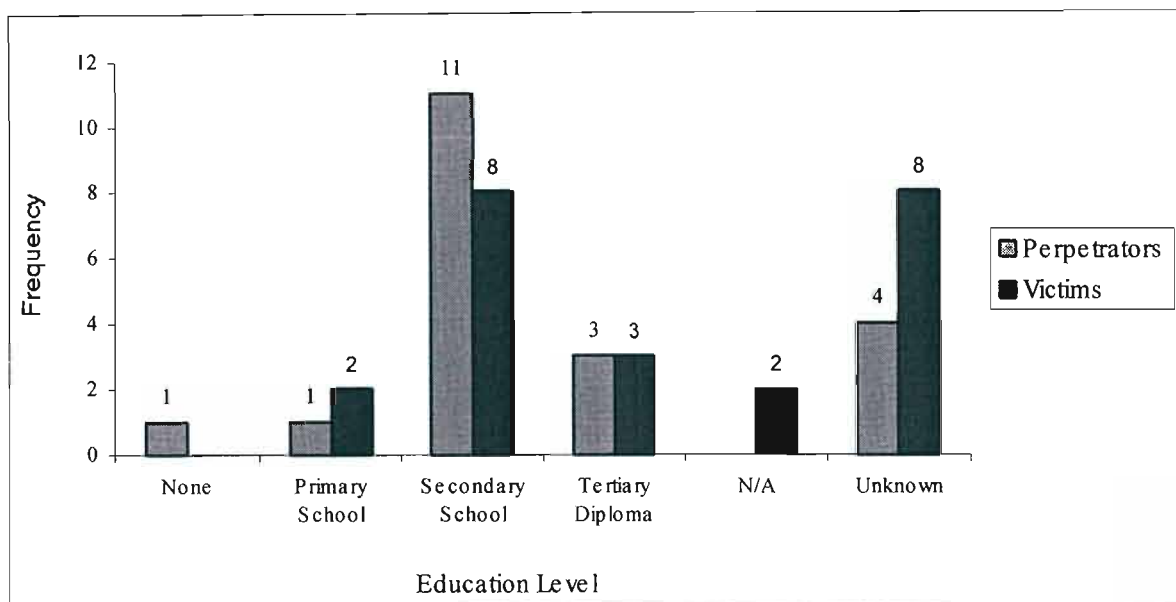
The majority of the perpetrators, adult males, killed their spouse or consort before committing suicide.

### 8.3.5 Socio-economic Status

#### 8.3.5.1 Level of Education

Figure 8

*Highest level of education*



The majority of the perpetrators had a secondary education. Eleven of the perpetrators had a secondary education while only eight of the victims had the same. None of the perpetrators or victims had a tertiary degree, although three perpetrators and three victims had achieved a tertiary diploma. Two of the victims, aged two and four respectively, were young children and therefore the variable of education did not apply to them. Data for eight of the victims was not available (Figure 8).

Table 11

*Frequency table for difference in level of education between victim and perpetrator*

	<b>Frequency</b>	<b>Percent</b>
Higher Education: Victim	4	18.2
Higher Education: Perpetrator	2	9.1
Same Education Level	2	9.1
Unknown	12	54.5
N/A	2	9.1

The difference in the level of education between each victim-perpetrator pair was calculated according to the actual academic year reached rather than generalising to groups such as primary or secondary education. In 12 out of 22 victim-perpetrator pairs (54.5%), the level of education of at least one of the individuals was unknown (Table 11). In 2 out of the 22 pairs (9.1%), the level of education was not applicable to one of the individuals in the pair as the individual would not have been of school-going age when she died. Two victim-perpetrator pairs (9.1%) had the same level of education. In two cases (9.1%), the perpetrator had a higher education than that of the victim. In four cases (18.2%), the victim's level of education was higher than that of the perpetrator.

In summary, most perpetrators (44.2%) had a secondary level of education. The highest level of education achieved was that of a tertiary diploma. Three victims and three perpetrators (14%) had reached this level. On comparison of levels of education between the victim and perpetrator, it was found that in slightly more cases, the victim had reached a level of education higher than that of the perpetrator.

### 8.3.5.2 Occupation

Figure 9

*Occupational categories of victims and perpetrators*

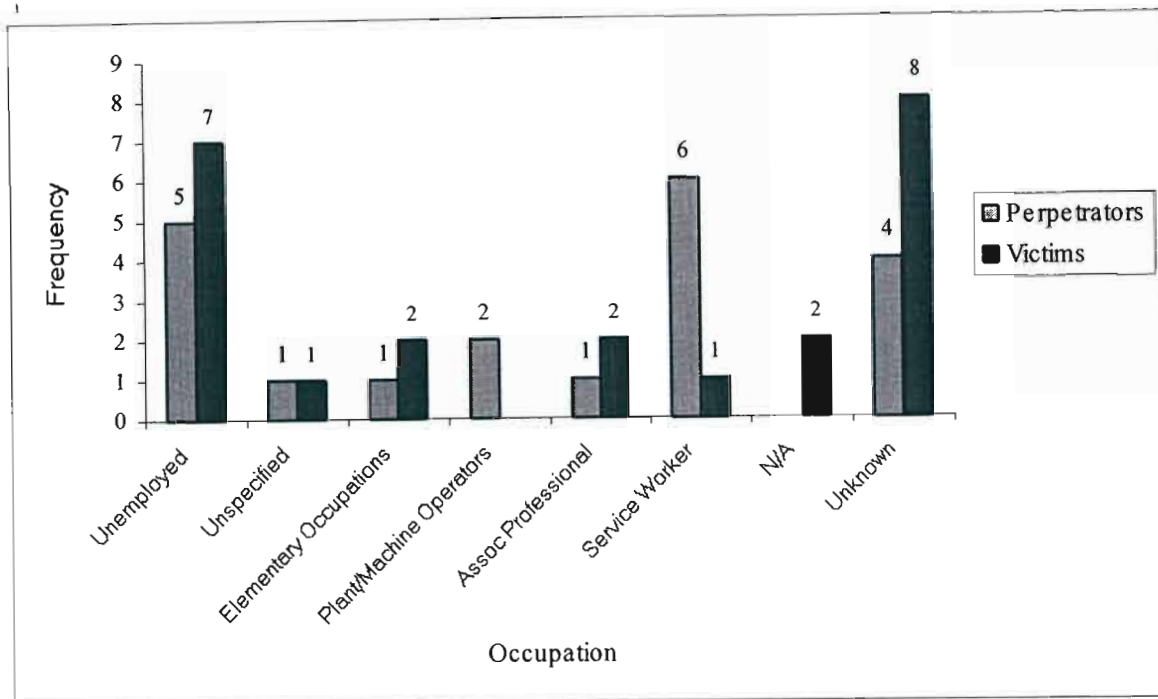


Table 12

*Frequency table for occupational breakdown of total sample*

Category	Frequency	Percent
Unemployed	12	27.9
Service Workers (Police/Security)	7	16.3
Assoc Professional	3	6.9
Elementary Occupations	3	6.9
Unspecified	2	4.7
Plant/Machine Operators	2	4.7
N/A	2	4.7
Unknown	12	27.9

Almost one third of the individuals (27.9%) involved in the murder-suicide event were unemployed (Table 12). All the individuals classified in the “service worker” category were in the security industry or police force. Seven out of 43 individuals (16.3%) worked in the police force ( $n=4$ ) or security professions ( $n=3$ ). This was the most common occupation of all

those involved in the murder-suicide events. Three individuals (6.9%) worked in what is specified as elementary occupations. Three individuals (6.9%) could be classified as associate professionals. Two individuals (4.7%) did temporary work and therefore fitted into the classification of unspecified occupations. Two individuals (4.7%) were classed as plant or machine operators because they worked in the manufacturing sector (Figure 9 & Table 12).

Table 13

*Frequency table for occupational breakdown of perpetrators*

<b>Category</b>	<b>Frequency</b>	<b>Percent</b>
Service Worker (Police/Security)	6	30.0
Unemployed	5	25.0
Plant/Machine Operators	2	10.0
Elementary Occupations	1	5.0
Assoc Professional	1	5.0
Unspecified	1	5.0
Unknown	4	20.0

Table 14

*Frequency table for occupational breakdown of victims*

<b>Occupation</b>	<b>Frequency</b>	<b>Percent</b>
Unemployed	7	30.4
Assoc Professional	2	8.7
Elementary Occupations	2	8.7
Unspecified	1	4.3
Service Worker (Police/Security)	1	4.3
N/A	2	8.7
Unknown	8	34.9

Twenty five percent of the perpetrators and 30.4% of the victims were unemployed. Six out of 20 perpetrators (30%) worked in the police force or security sector. One of the 23 victims (4.3%) worked in the police force (Table 13 & Table 14). A broad distribution across the various occupational categories is observable with clustering in the unemployment and service worker sector.

Table 15

*Frequency table for sex of security or police officers: Victims and perpetrators*

Sex	Frequency	Percent
Male	6	85.7
Female	1	14.3

Seven individuals in total worked in the police force ( $n=4$ ) or security sector ( $n=3$ ). In the only case where a police officer was a female, she was the victim (Table 15). She was killed by her boyfriend who was a policeman (Appendix B). The data suggests that a high number of the perpetrators were working in the police or security industry.

### 8.3.5.3 Town or District of Death

Figure 10

*Town or district of death*

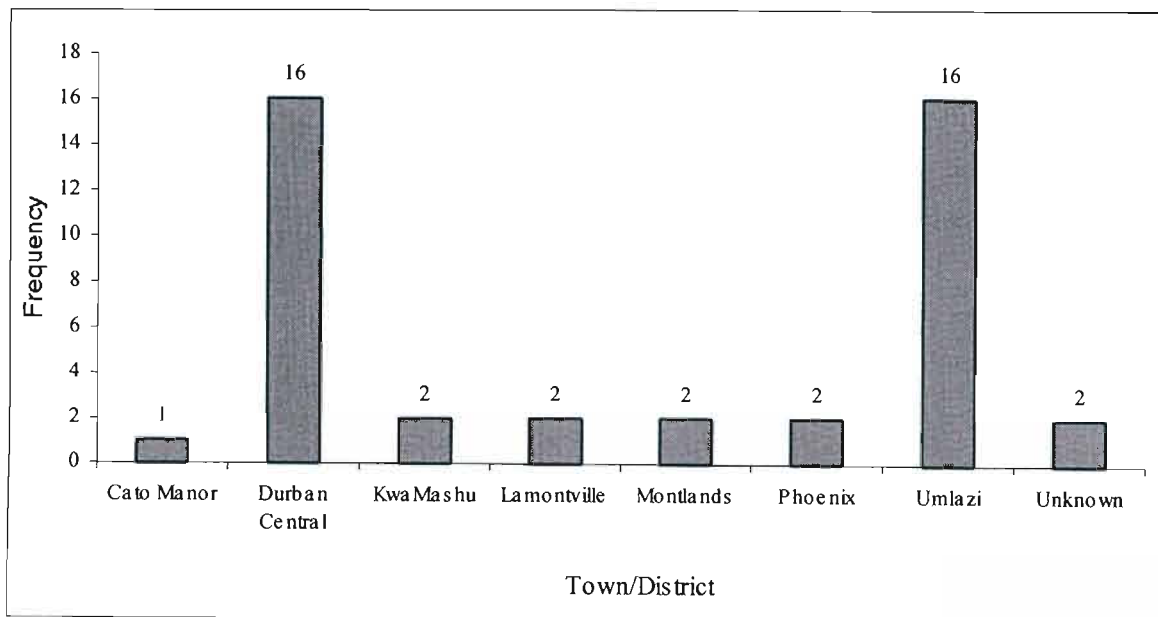


Table 16

*Frequency table for town or district of death*

<b>Town/District</b>	<b>Frequency</b>	<b>Percent</b>
Durban Central	16	37.2
Umlazi	16	37.2
KwaMashu	2	4.7
Lamontville	2	4.7
Montlands	2	4.7
Phoenix	2	4.7
Cato Manor	1	2.3
Unknown	2	4.7
Total	43	100

Table 17

*Chi-Square Goodness-of-Fit test area of death*

Chi-square*	49.32
Degrees of Freedom	6
Asymp. Sig.	0

*Note.* \*7 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 5.9.

Table 18

*Frequency table for distribution of population in Durban*

<b>Town/District</b>	<b>Population<sup>a</sup></b>	<b>Percent</b>	<b>Murder-Suicides</b>
Umlazi	268587	11.9	16
KwaMashu	123061	5.5	2
Phoenix	147443	6.5	2
Durban Central	35603	1.6	16
Lamontville	25897	1.1	2
Cato Manor	17082	0.8	1
Montlands	14589	0.6	2
Other	1627042	72.0	(2) <sup>b</sup>
Total	2259304	100	43

<sup>a</sup>The data in column 2 are from [www.urbstrat.org.za](http://www.urbstrat.org.za). <sup>b</sup>The data for the town/district of death of two murder-suicides were not available. These murder-suicides did not necessarily occur in areas specified as “other”.

As illustrated in Figure 10 and Table 16, the highest proportion of murder-suicides occurred in Umlazi and Durban Central. Sixteen out of the 43 (37.2%) people involved in the murder-suicide were found in Umlazi. An equal number of deaths occurred in Durban Central. Murder-suicides were fairly evenly distributed across the other areas (Figure 10). As is illustrated by Table 17, a disproportionately high number ( $\chi^2 = 49.32, p < .05$ ) of murder-suicides occurred in both the areas of Umlazi and Durban Central.

Table 18 illustrates that of all the areas where murder-suicides were indicated, Umlazi has by far the greatest population making up 11.9% of the total population of Durban. The population of Durban Central makes up 1.6% of the total population of Durban. The small size deemed it impossible to use a chi-square test to ascertain whether there was any significant disproportion in the number of murder-suicides in relation to the population size of a specific district. It is clear from Table 18 that a far higher proportion of murder-suicides occurred in Durban Central than in Umlazi when the population of that specific area was considered.

### 8.3.6 Method of Death

Figure 11

*Method of death*

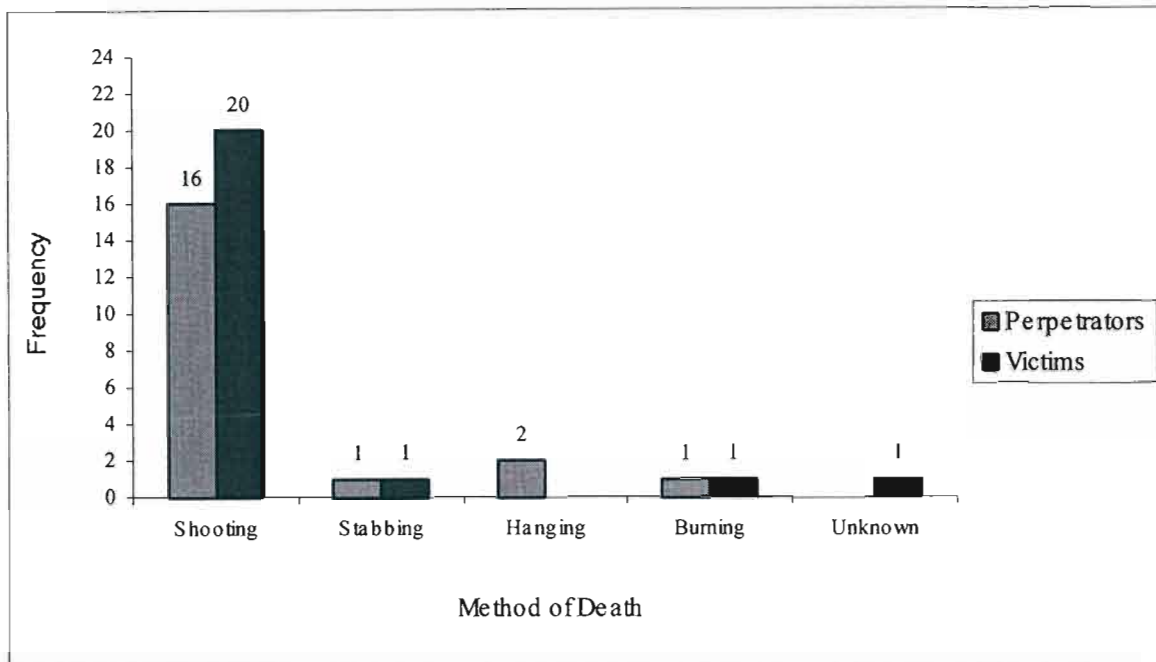


Table 19

*Frequency table for method of death for total sample*

Method of Death	Frequency	Percent
Shooting	36	83.7
Stabbing	2	4.7
Hanging	2	4.7
Smoke inhalation/burning	2	4.7
Unknown	1	2.3

Table 20

*Chi-Square Goodness-of-Fit test for method of death*

Chi-square*	82.57
Degrees of Freedom	4
Asymp. Sig.	0



Note. \*0 cells (.0%) have expected frequencies less than

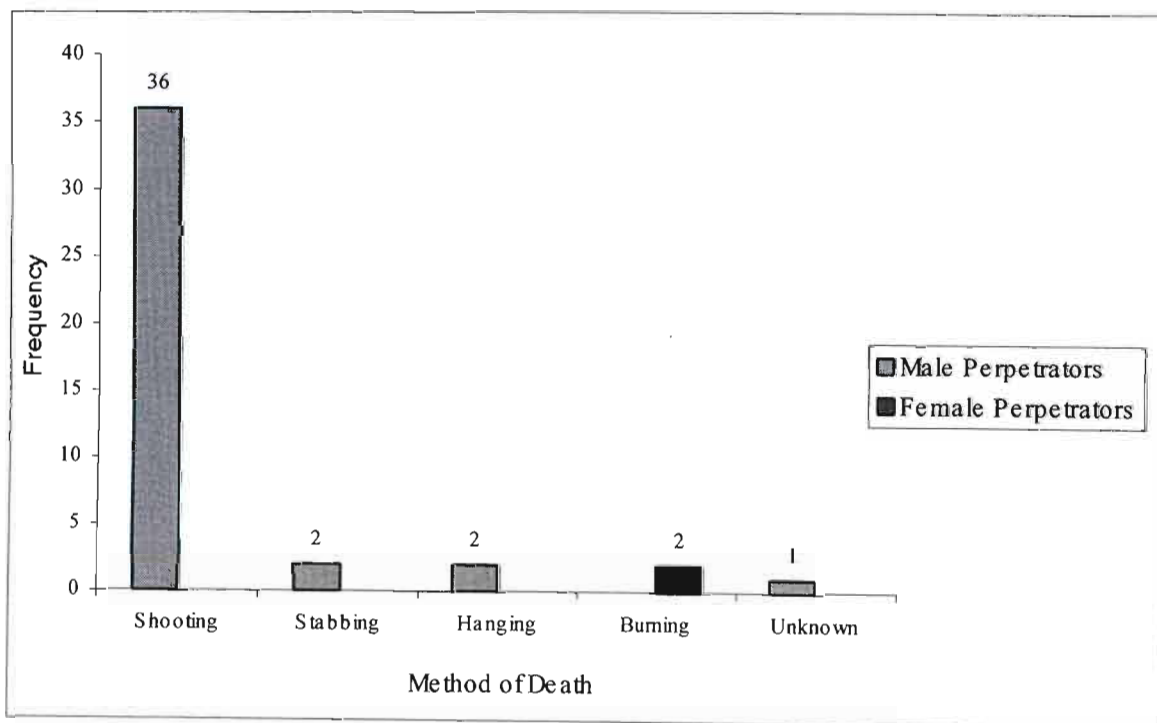
5. The minimum expected cell frequency is 8.6.

Shootings were the most common method of death resulting in 83.7% of the murder-suicide deaths (Table 19). Twenty perpetrators and 16 victims died of gunshot wounds (Figure 11). As Table 20 illustrates, the categories of the method of death were found to vary significantly from each other ( $\chi^2=82.57$ ,  $p<.01$ ). The high number of shootings was therefore statistically disproportionate. Shootings were therefore beyond chance the most likely method of death.

Stabbing, hanging and burning were the other methods of death that were used less frequently. These were equally popular where two individuals died from each of these methods (Figure 11). In one case, the method of death was unknown as the perpetrator had killed his ex-wife the previous day and it was likely that her body was not autopsied at Gale Street Mortuary. He then hanged himself (Appendix B).

Figure 12

*Method of death by sex of perpetrator*



In the only instance where the perpetrator was a woman, she killed her child and herself by burning the house (Figure 12). This was the only occasion that burning or smoke inhalation was cited as the method of death.

The same method of death was used between the victim and perpetrator for every case where individuals died in the murder-suicide events. On only one occasion did the perpetrator stab his girlfriend in an attempted murder, and then hanged himself (Appendix B).

#### 8.3.6.1 Number and Area of Wounds

Figure 13

*Comparison of number of wounds between victim and perpetrator*

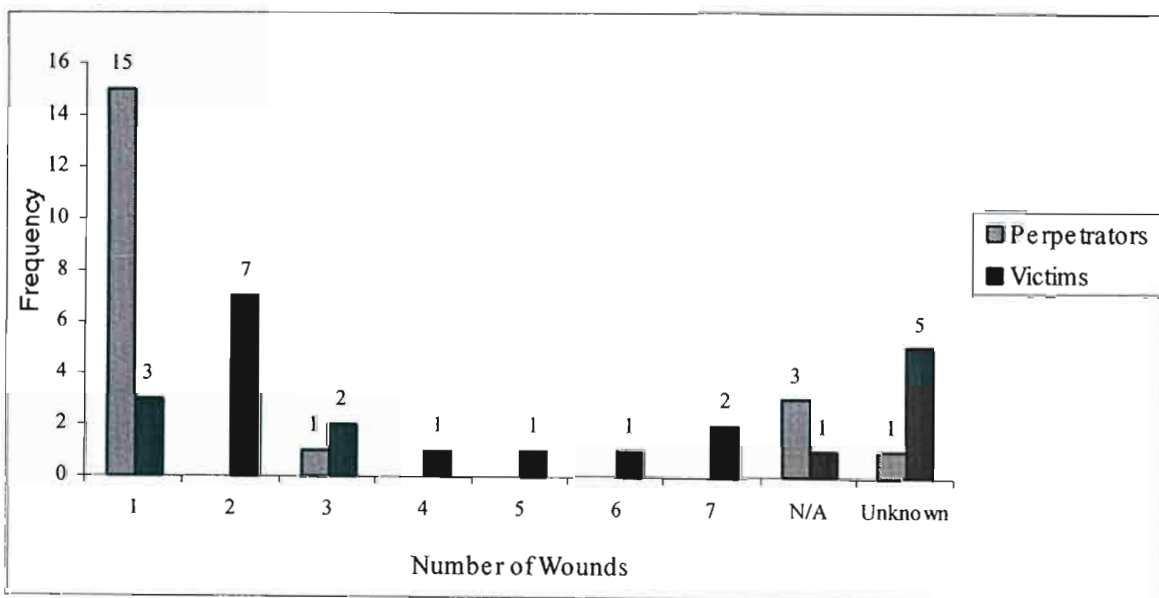


Table 21

*Frequency table for number of wounds sustained by victims and perpetrators*

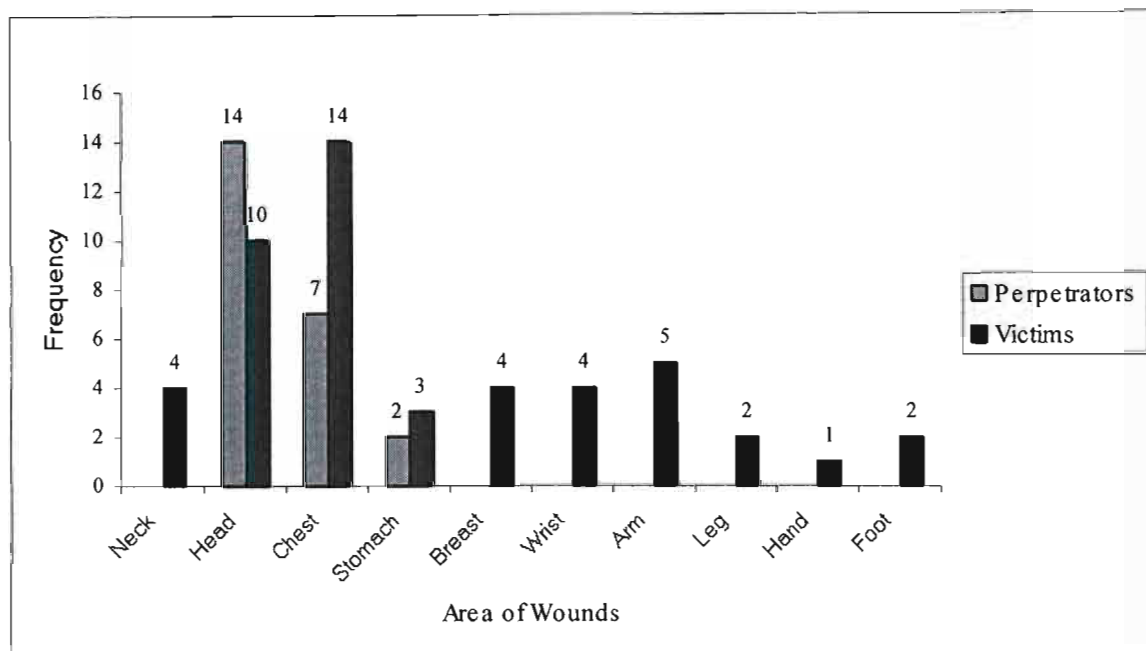
	Frequency	Percent
Victims		
Single	3	13.0
Multiple	14	60.9
Unknown	5	21.7
N/A	1	4.4
Perpetrators		
Single	15	75.0
Multiple	1	5.0
Unknown	1	5.0
N/A	3	10.0

Three of the victims (13%) and 15 of the perpetrators (75%) had single wounds to their bodies when autopsied. Fourteen (60.9%) victims and only 1 (5%) perpetrator had multiple wounds (Table 21). In the case where the perpetrator had more than one wound it was due to multiple stabbings (Appendix B). The number of wounds was not considered when the method of death was by hanging or burns. The number of wounds was unaccounted for in four cases. In three of these cases, the method of death was by gunshot wound and in one case the method of death was unknown (Appendix B).

In the only case where the perpetrator had multiple wounds, he stabbed himself three times. Most frequently, where the victim had multiple wounds, there were usually two gunshot wounds. The most wounds that a victim sustained was seven gunshot wounds (Figure 13).

Figure 14

*Comparison of area of wounds sustained by victim and perpetrator*



The majority of perpetrators shot or stabbed themselves in the head or the chest (Figure 14). The victims were mostly shot, and in one case stabbed, in the chest. In the only case where the victim was stabbed, she survived (Appendix B). The victims were also commonly shot in the head. Unlike the perpetrators who usually had one wound in a specific bodily area, the victims had multiple wounds in multiple areas of their body. This included four shootings to breasts of victims.

### 8.3.7 Body Location and Location of Proximity

Figure 15

*Body location*

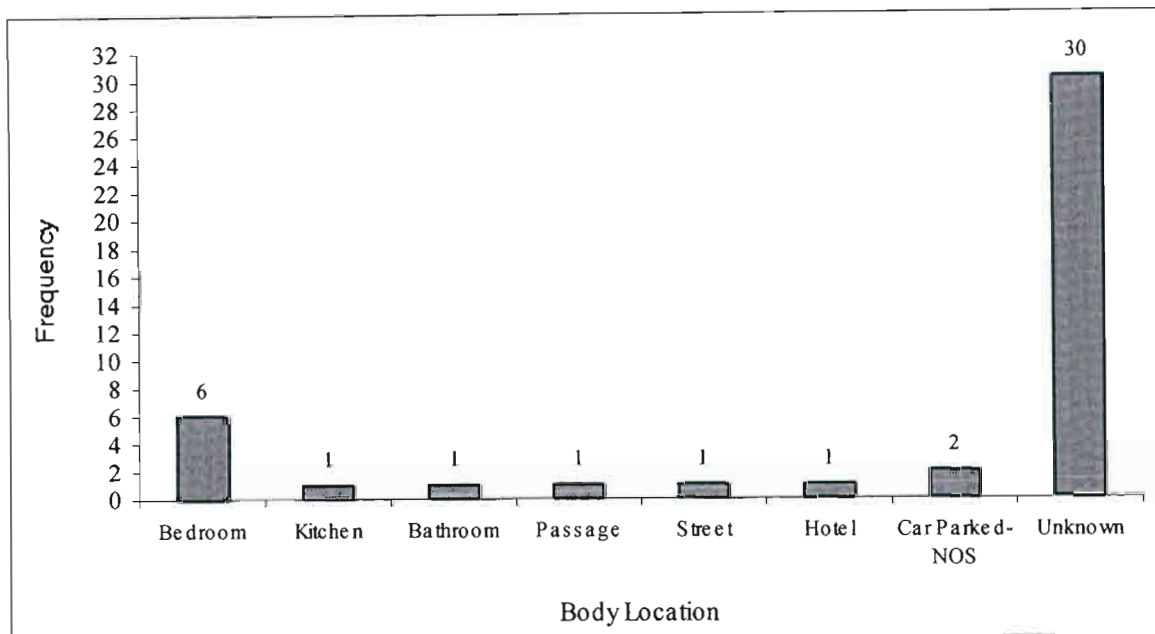


Table 22

*Frequency table for location of proximity per victim-perpetrator pair*

Location	Frequency	Percent
Same room	3	12.5
Same town or district	21	87.5

Due to the inconsistency in obtaining information from the corresponding police cases, it was difficult to establish where the bodies had been found in many of the events. In 30 out of 43 bodies, it was unclear where the bodies were located (Appendix B).

Six bodies were found in the bedroom (Figure 15). A couple was found in a car parked at a service station. One victim was found in her kitchen. Another victim was found locked in the bathroom and her mother was in the passage. A separate victim was found lying in the street. In another case, a separate perpetrator was found at a hotel a day after he killed the victims (Appendix B).

In many cases there was no indication where the second or third body linked to the first body had been found. There is therefore no way to establish if the bodies were found together or not. In order to establish the location of proximity of the bodies, victim-perpetrator pairs were grouped according to where their bodies were found.

Twenty-one (87.5%) of the victim-perpetrator pairs were found within the same town. This takes into account all those bodies whose exact location at time of death was unspecified. The fact that the bodies were autopsied at the same mortuary indicates that they were found within the same town. In only one case did a perpetrator kill the victims before travelling from KwaMashu to Durban Central before killing himself a day later (Appendix B). Three (12.5%) of the victim-perpetrator pairs were found in the same room (Table 22). This includes a couple that were found in the perpetrator's car at a petrol station.

### 8.3.8 Date of Death

#### 8.3.8.1 Year of Death

Table 23

*Frequency table for the year of death*

<b>Year</b>	<b>Frequency</b>	<b>Percent</b>
2000	18	41.9
2001	25	58.1

Eighteen individuals died from their involvement in murder-suicides in the year 2000 whereas 25 people died from murder-suicides in the year 2001 (Table 23). This shows a 16.2% increase in murder-suicides from 2000 to 2001.

8.3.8.2 Month of Death

Figure 16  
*Date of death (month)*

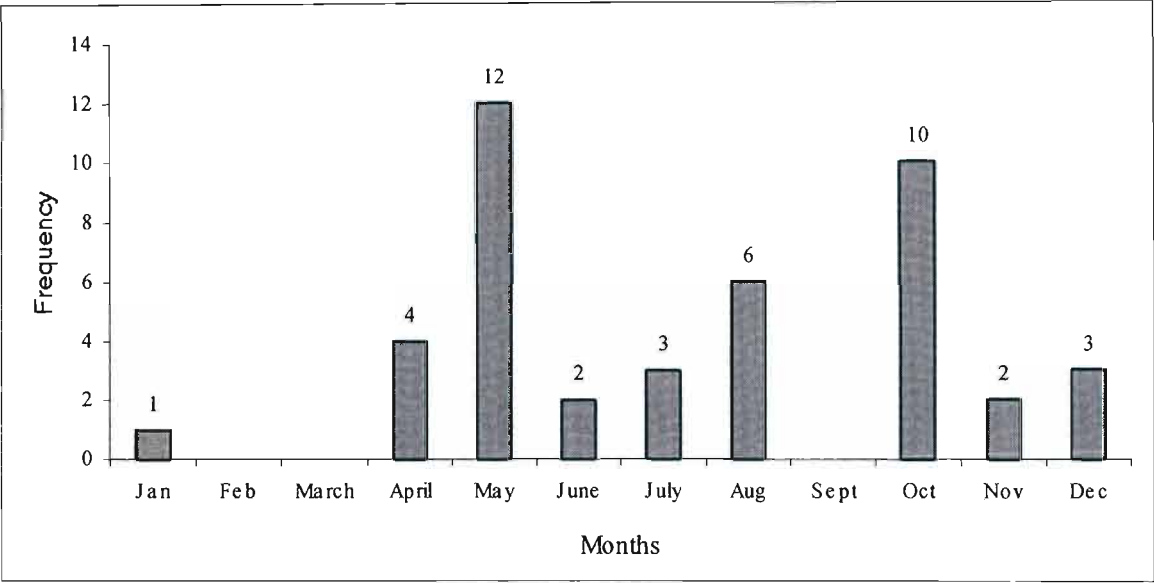


Table 24  
*Frequency table for month of death*

Month	Frequency	Percent
May	12	27.9
October	10	23.3
August	6	14.0
April	4	9.3
July	3	7.0
December	3	7.0
June	2	4.7
November	2	4.7
January	1	2.3

Table 25

*Chi-Square Goodness-of-Fit Test for month of death*

Chi-square*	47.12
df	6
Asymp. Sig.	0

*Note.* \*9 cells (100.0%) have expected frequencies less than

5. The minimum expected cell frequency is 4.8.

Table 26

*Frequency table for season of death*

Season	Frequency	Percent
Summer	6	14.0
November		
December		
January		
February		
March		
Autumn	16	37.2
April		
May		
Winter	11	25.6
June		
July		
August		
Spring	10	23.3
September		
October		
Total	43	100

Over the two-year period, the highest number of individuals died in the months of May, August and October where 12 (27.9%), six (14%) and 10 individuals (23.3%) died respectively (Figure 16 & Table 24). No murder-suicide events were reported for the months



of February, March and September. As Table 25 illustrates there is a significant difference between the months in which the deaths occurred ( $\chi^2=47.12$ ,  $p<.05$ ). May and October were therefore the more likely months for murder-suicides to occur. The low sample size results in less than 5 expected observations per cell which makes it necessary to interpret this result cautiously.

As can be seen from Table 26, the majority of the murder-suicides occurred in autumn (37.2%), followed by winter (25.6%) and then closely by spring (23.3%). The least murder-suicides occurred in the summer months (14%).

**8.3.8.3 Day of Death**

Figure 17  
*Day of week of death for total sample*

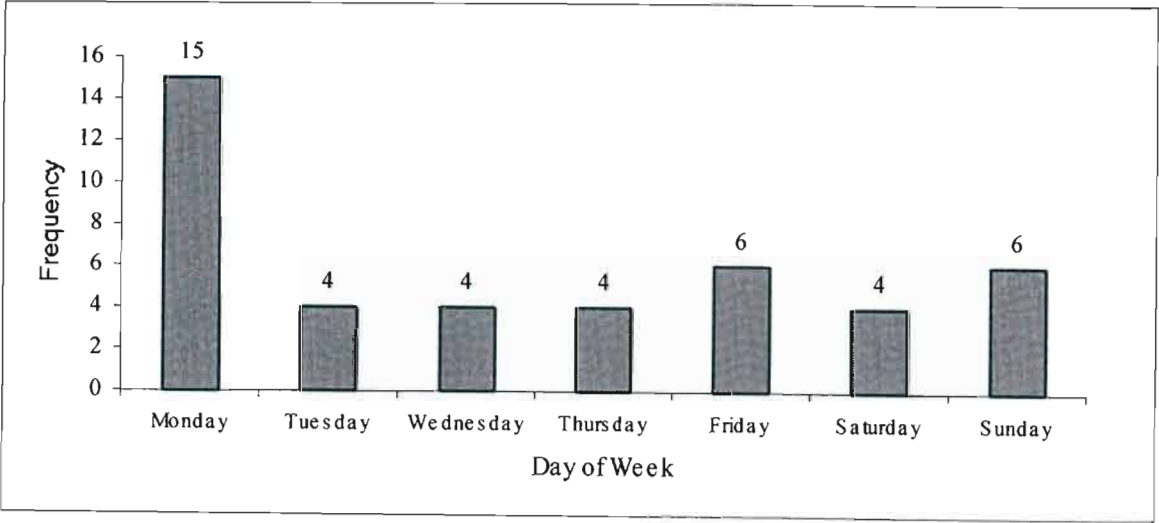


Table 27

*Frequency table for day of week of death*

<b>Day of Week</b>	<b>Frequency</b>	<b>Percent</b>
Monday	15	34.8
Tuesday	4	9.3
Wednesday	4	9.3
Thursday	4	9.3
Friday	6	14.0
Saturday	4	9.3
Sunday	6	14.0
Total	43	100.0

Table 28

*Chi-Square Goodness-of-Fit Test for day of week of death*

Chi-square*	15.77
Degrees of Freedom	6
Asymp. Sig.	.002

*Note.* \*9 cells (.0%) have expected frequencies less than

5. The minimum expected cell frequency is 4.8.

Table 29

*Frequency table for date in month of death*

<b>Date (Day)</b>	<b>Frequency</b>	<b>Percent</b>
11	7	16.3
5	5	11.6
20	5	11.6
15	4	9.3
16	4	9.3
18	3	6.8
8	2	4.7
14	2	4.7
22	2	4.7
26	2	4.7
28	2	4.7
29	2	4.7
9	1	2.3
23	1	2.3

The majority of the deaths resulting from murder-suicides, 15 (34.8%), occurred on a Monday (Table 27 & Figure 17). A total of 10 (23.3%) deaths occurred on the weekend, while 33 (76.7%) occurred on a weekday. For the purpose of this study, Friday is included as a weekday. Table 28 illustrates that a significant difference between the days of the week was indicated ( $\chi^2 = 15.77, p < .05$ ). Mondays were therefore disproportionately over represented as the most likely day for murder-suicides to occur.

The murder-suicides were fairly evenly distributed throughout the month (Table 29). There were too many variable levels to allow for a chi-square test. On two occasions the murderer committed suicide a day after killing the others involved in the event (Appendix B).

## **8.5 Demographic Profiles**

The results yielded crude demographic profiles that would be typical of murder-suicide victims and perpetrators from this sample. The typical profile of a perpetrator would be a Black male aged 32 years, with a secondary school education and currently unemployed or working in the police or security sector. He would typically be the boyfriend or spouse of the victim and would commit the homicide and suicide using a firearm.

The typical profile of a victim would be a Black female aged 26 years, with at least a secondary school education and currently unemployed. She would typically be the spouse or girlfriend of the perpetrator. Her death would usually be attributed to multiple gunshot wounds to the head or chest.

## **8.6 Summary**

Forty-three individuals in total died as a result of the 21 cases of murder-suicide in the city of Durban for the years 2000 and 2001. There was a 16.2% increase in murder-suicides from 2000 to 2001. The number of all unnatural deaths for those two years attributed to murder-suicide was 0.91%. For the years 2000 and 2001, murder-suicide formed 0.02% of all homicides. In contrast, murder-suicides formed 6.8% of all suicides over the two-year period.

The results showed that the incidence rate for murder-suicide in the Durban Metro area was 0.89 per 100 000 population. This rate is calculated using only the perpetrators who were involved in the murder-suicides. When including the total number of people involved in the murder-suicide events, the incidence rate rose to 1.9 per 100 000 population.

A significantly high number of males were perpetrators and a significantly high number of females were victims. The male perpetrator was usually older than the victim. In most cases, the perpetrator killed his girlfriend or spouse using a firearm. Almost two thirds (60.9%) of the victims sustained multiple wounds whereas 75% of the perpetrators sustained single wounds. In the only case where the perpetrator was female, she killed her child before killing herself. She did so by using an alternative method to the significantly high method of shooting.

There were no individuals from the Coloured or White racial groupings. Only individuals from the Black (88.4%) and Indian (11.6%) racial groupings were involved in the murder-suicide events. These distributions appear to be roughly proportional to the race distribution in the area.

Where the level of education was known, most victims and perpetrators had reached a secondary level of education. The victim usually had a higher level of education than the perpetrator. Most of those involved in the murder-suicides worked in the police or security sector, or were unemployed. A significantly disproportionate number of murder-suicides occurred in Umlazi and Durban Central. In most events, the murder-suicides took place in the same town or district. Where the exact location was known, this was usually in the bedroom.

The frequent occurrence of murder-suicide events in the months of May and October was statistically significant. The season of autumn appeared to be most common. There was a significant peak in murder-suicides on a Monday.

Alcohol was detected in only one of the murder-suicide cases. No suicide notes were left behind by either the perpetrator or the victim in any of the cases. Selective antecedent history such as previous physical illnesses, depression or a previous criminal history was found to be unavailable.

The following section will discuss these findings in conjunction with the relevant international and South African literature. A critique of the methodology that was used to gather these results will also be included.

## **CHAPTER 9**

### **DISCUSSION OF RESULTS**

#### **9.1 Introduction**

This chapter is an analysis of the results presented above. The incidence of murder-suicide within the sample will be discussed. In addition, the demographic findings will be examined with regards to how they compare with previous international and domestic studies. Lastly, the methodology will be evaluated according to its effectiveness and limitations. Suggestions will be made for future South African murder-suicide research.

#### **9.2 Incidence Rates**

Literature reviewed by Felthous and Hempel (1995) concluded that the rate of murder-suicide is constant between countries, about 0.2 to 0.3 per 100,000 people. This rate is constant even though the rates of suicide and homicide show great variability.

This study found the incidence of murder-suicide to be 0.89 per 100,000 people. This rate is calculated by measuring the number of murderers who committed suicide and is based on an internationally accepted method of calculation (Felthous & Hempel, 1995; Rosenbaum, 1990). The incident rate in the Durban sample was higher than the international average. It must however be taken into account that the sample under study was relatively small and that the research was conducted over a two year period only. Internationally, many studies (Allen, 1983; Milroy, 1995; Rosenbaum, 1990) have researched murder-suicide over a period of up to ten years at a time, in order to generate more accurate incidence rates. When the incidence rate for this sample is calculated by measuring the total number of individuals who have died in murder-suicide events (1.9 per 100 000), the rate is even higher.

There was a 16.2% increase in murder-suicides from the year 2000 until 2001. It is not possible to ascertain whether this represented a random increase in murder-suicide because the events for only two consecutive years were measured. A longer series would allow for a more reliable measurement of a variation in the murder-suicide rate. Milroy (1993) found that in England the murder-suicide rate remained fairly constant over 30 years despite changes

in the homicide rate. Cohen et al. (1998) reported that the annual incidence of murder-suicide was constant in the USA and other countries.

Coid (1983, in Rosenbaum, 1990) found that the higher the rate of homicide in a population, the lower the percentage of murder-suicide. Felthous & Hempel (1995) found that the lower the homicide rate, the higher the proportion of murder-suicide. Abramsky and Helfman (1999) reported that the proportion of murderers who committed suicide varied widely between countries. They estimated this rate to be 5% in Hong Kong (Wong & Singer, 1973, in Abramsky & Helfman, 1999), 8% in Finland (Virkkunen, 1974 in Abramsky & Helfman, 1999), 16% in Iceland (Hansen & Bjarnason, 1974, in Abramsky & Helfman, 1999), and 33% in Great Britain (Morris & Blom-Cooper, 1967 in Abramsky & Helfman, 1999). This study found that murder-suicide deaths accounted for 0.02% of all homicides. This rate is low when compared to international figures but under closer inspection it can be understood that this rate is due to Durban's very high homicide rate.

Durban has a high homicide rate, as does the rest of South Africa. For the years 2000 and 2001, 45.8% of all unnatural deaths were as a result of homicides (A Sukhai, personal communication, February 4, 2003). Murder-suicides represented 0.91% of all non-natural deaths but 0.02% of all homicides. This is very low when compared to the high homicide rate for the same area. The results from this study showed that where in this sample there was a very high homicide rate, there was a low murder-suicide rate, calculated as a percentage of all homicides. This is corroborated by the findings of Abramsky and Helfman (1999) who found that as the rate of homicide increased, so the proportion of murder-suicide declined.

As discussed earlier in section 2.3.2.1, the limited recent and reliable South African suicide statistics (Wassenaar et al., 2000) showed that the suicide rate in regions in South Africa was slightly higher than the international norm (Maris et al., 2001). Calculated as a proportion of all unnatural deaths for the years 2000 and 2001, suicides made up a total of 6.9%, homicides 45.8% and murder-suicides 0.91%. This suicide rate of 6.9% is far lower than the homicide rate (45.8%) for that same period and closer to the murder-suicide rate of 0.91%. Landau (1975, in Buteau et al., 1993) postulated that murder-suicide was more likened to suicide rather than murder. He attributed this likeness to a direct relationship between murder-suicide rates and suicide rates compared to an inverse relationship between murder-suicide and homicide rates.

This sample showed that 0.93% of murderers committed suicide after committing homicide whereas a total of 6.8% of all suicides committed murder before killing themselves. The results seem to indicate that murder-suicide is more closely linked to suicide (6.9% of all non-natural deaths) rather than murder (45.8% of unnatural deaths). The results also suggest that where there are suicidal ideations, there are more likely to be murderous impulses. This indicates an overlap between suicide and homicide, the outcome of which is dependent on the direction of aggressive impulses as was postulated by Menninger, (1938, in Danto, 1978) Litman (1967, in Abramsky & Helfman, 1999) and Abramsky & Helfman (1999).

The above results suggest that Durban has a higher incidence of murder-suicide than the international norm. South Africa has a very high homicide rate and therefore the murder-suicide rate in comparison to this appears to be considerably lower. The limited suicide statistics seem to indicate that regions in South Africa have a higher incidence than the international norm. It is hypothesised that individuals have high levels of aggression within the South African population and that factors such as crime and violence in the community as well as a history of political violence have contributed to these elevated homicide, suicide and murder-suicide statistics. The study found that the rates of murder-suicide were more closely related to suicide rather than murder. This suggests that murder-suicide is statistically more alike suicide than murder.

### **9.3 Discussion of Demographic Findings**

It has been proposed that aggression towards the self and others is influenced by multiple factors (Hillbrand, 2001). A combination of biological factors in the form of serotonergic abnormality and low serum cholesterol (Golomb, 1998; Hillbrand & Spitz, 1997, 1999; both in Hillbrand, 2001), psychological factors including modelling, depression, impulsivity, anger, substance abuse and command hallucinations (Berkowitz, 1993; Favazza, 1989, Hillbrand, 1995; Plutchnik & van Praag, 1990; all in Hillbrand, 2001), and social factors such as exposure to media reports of violence or suicide, access to firearms, poor social supports and unemployment (Buda & Tsuang, 1990, in Hillbrand, 2001) all contribute to aggression. Additionally, cultural factors, victim availability, mood fluctuations, modelling effects and projective mechanisms that contribute to object choice may all play a role (Hillbrand, 2001). These multiple factors will be discussed below to varying degrees with how they contribute to the aggressive act of murder-suicide.



The following section will compare the various findings discussed in the previous chapter with findings from previous international and South African studies of murder-suicide. It is acknowledged that the demographic categories below are not discrete entities and that the findings will on occasion overlap into another category.

### **9.3.1 Sex**

This study found that a significantly high number of the perpetrators (95%) were male, and only one perpetrator (5%) was female (Table 3, section 8.3.1). This follows the pattern of Western studies (Allen, 1983; Berman, 1977; Buteau et al., 1993; Milroy, 1993, 1995; Rosenbaum, 1990; Wolfgang, 1959) where over 90% of the perpetrators were found to be male. The results from Osborne's (2001) more recent study were similar to the Durban sample. In her study, 88% of the perpetrators were male and 12% female.

The findings from this study are in contrast to early South African research where a high proportion (41%) of the perpetrators were female (Roos et al., 1992). Similar findings of a high percentage of female perpetrators were reported in Japan (Sakuto, 1995) as well as in West's (1967, in Danto, 1978) early study. In both the Japanese and the English study, the females usually killed their children and themselves.

The Durban sample showed that in the only case where the victim was female, she killed her child before killing herself. Silverman and Mukherjee (1987, in Easta, 1994) found that most female perpetrators of murder-suicide killed children. It is noted that no other person was involved in the particular murder-suicide in Durban when the mother killed her child. Although she was pregnant when she died, it is unclear whether there was any intimate partner involved with the perpetrator.

Several studies (Daly & Wilson, 1988, in Nock & Marzuk 1999; Dawson & Langhan, 1994, in Felthous & Hempel, 1995; Goldney, 1977; Rodenburg, 1971, in Nock & Marzuk 1999; West, 1967, in Felthous & Hempel, 1995) concluded that a mother who committed murder-suicide tended to kill only her children and herself. A father who killed his children was more likely to kill his entire family, including his spouse. Milroy (1995) added that women who killed their spouse rarely committed suicide afterwards. Osborne's (2001) South African study found that in all but one case where there was a female perpetrator, she killed her child

before killing herself. In only one case did a female kill her spouse before committing suicide.

The victim who was killed by her mother in the Durban sample was a 2-year-old girl. This is in contrast to Nock and Marzuk's (1999) theory that the murder of the child by the mother would occur in the first six months of the infant's birth as this would be related to post-partum depression or psychosis (Resnick, 1969, in Nock & Marzuk, 1999). A 2-year-old child is still dependent on its mother for survival and at that age would only be beginning to separate from her (Mahler & Furur, 1968, in St Clair, 2000). In this way it can be seen that the child in this sample may still have considered by her mother to be an extension of herself.

There were no male victims in the Durban sample. It was found that there was a significant number of female victims. In 20 out of 21 cases, a male perpetrator killed one or more females. In the only cases where children were killed, these children were female.

### **9.3.2 Age**

The results from the sample showed that the mean age for all those involved in the murder-suicide events was 29.6 years. The mean age for the perpetrators was 32 years while the most common age of all perpetrators was 30 years (see Figure 3, section 8.3.2).

It has been reported that perpetrators of murder-suicide tend to be older than perpetrators of homicide alone. In homicide alone, perpetrators are commonly reported to be young adults or even adolescents (Felthous & Hempel, 1995). It has been suggested that this is because depression is usually the predominant clinical condition in suicide and that both suicide and depression are associated with older age groups (Felthous & Hempel, 1995).

Felthous and Hempel (1995) also suggested that stressors such as physical and mental disabilities or chronic illness are more common in advancing age and that individuals in the middle age group may be more sensitive to unexpected job loss. Furthermore, they postulated that an older offender would have had time to establish an intimate relationship that has lasted long enough for bonding, dependence, turmoil and instability to develop.

A distinct relationship between age and suicide has been found. White male suicide rates tend to increase linearly with age, sometimes with a slight drop in rates in the oldest age groups

(Moscicki, 1999, in Maris et al., 2000). Black males, White females and Black females all have suicide rates that peak in midlife (Maris et al., 2000). Levinson (1978, in Maris et al., 2000) suggested that suicide rates may increase at life-stage transitions such as adolescence to young adulthood, or adulthood to becoming elderly. South African suicide research conducted in Pietermaritzburg found that African and Indian males had the highest suicide rate in the 25-34 year age group. The study found that suicide in the White population occurred in an older age group, 35-44 years (Wassenaar et al., 2000).

The average age for the Black male or female perpetrator in the murder-suicide cases of this sample is far lower (32 years) than midlife, as was suggested by Maris et al. (2000). Furthermore, the age group of the early thirties, is generally not viewed as a stage of life transition and therefore Levinson's (1978, in Maris et al., 2000) hypothesis of increased suicide in times of life transitions does not seem applicable to murder-suicides in this instance.

The findings of Black and Indian suicides in Pietermaritzburg significantly reflect the mean age, as well as the race, of the murder-suicide sample in Durban. It has been suggested that the unemployment rate in South Africa, especially among Black males, should be considered an influential factor in this regard (Wassenaar et al., 2000). Hawton, Houston and Sheppard (1999, in Wassenaar, 2000) found that young men of working class backgrounds with limited employment opportunities have generally been considered to be a high risk for suicide. It is noted that 25% of the perpetrators in this sample were unemployed (see Table 13, section 8.3.5.1).

Some Western studies (Allen, 1983; Easta, 1994; Marzuk et al., 1992; Milroy, 1993) have coincided with Maris et al.'s (2000) and Levinson's (1978, in Maris et al.) findings on age and suicide. In these studies, perpetrators were found to be between the ages of 40 and 60 years.

Palmer and Humphrey (1980, in Easta, 1994) found the perpetrator to be over 30 years old. The Durban sample showed that 6 of the 20 (30%) perpetrators were below the age of 30 whereas the majority, 14 (70%), were 30 years or above (see Figure 3, section 8.3.2). In previous South African studies, Roos et al. (1992) found the mean age of perpetrators to be 34 years while Osborne (2001) found the majority of perpetrators to be under 50 years old.

These findings of Roos et al. (1992) are consistent with the younger mean age of perpetrators found in this study when compared with many international studies that found perpetrators to be closer to midlife.

Variations between findings suggest that social factors may influence the extent to which each of the sexes is represented in murder-suicides (Felthous & Hempel, 1995). Social or cultural factors may similarly influence the age differences across countries.

The Durban sample found that the mean age for the victims was 26 years old. In the only other identified study where victim ages were noted, Sakuto (1995) found that children were the most common victims. Following that, victims were in their thirties, then forties, and only after that in their twenties. These discrepancies once again place importance on the likely influence of cultural factors that would affect family structures and dynamics.

The results from the sample revealed that of 17 of the victim-perpetrator pairs, the perpetrator was older than the victim in 13 of these cases. Some Western studies (Berman, 1979; Cohen et al., 1998; Hanzlick & Koponen, 1994) have similarly found the perpetrator to be consistently older than the victim.

In summary, perpetrators of murder-suicide in this sample were found to have a mean age of 32 years and a mode of 30 years. This is inconsistent with many international studies that have placed the age of murder-suicide perpetrators as in the older age group of 40 to 60 years. The findings from this sample are consistent with Pietermaritzburg suicide statistics (Wassenaar et al., 2000) as well as with an earlier South African murder-suicide study (Roos et al., 1992).

### **9.3.3 Race**

Murder-suicide is said to occur at an almost constant rate across cultural, ethnic, racial and geopolitical boundaries (Felthous & Hempel, 1995).

The site chosen for this study was representative of the city of Durban itself. Gale Street mortuary covers urban areas such as the central city, previous townships, and informal settlements. The sample is representative of a range of socio-economic classes and races.

This study found that 88.4% of those individuals who died in the murder-suicide events were Black while 11.6% were Indian. Of the 21 cases over the two year period, 19 cases involved Black individuals and two cases involved Indians. This means that there were 19 Black perpetrators and two Indian perpetrators. All cases were intra-racial as has been found in various other international studies (Allen, 1983; Currens, 1991, in Palermo, 1994; Hanzlick & Koponen, 1994). Only the Black and Indian race groups were involved in murder-suicide killings in the Durban sample.

✓ Most international studies have found the majority of perpetrators to be from the White population group (Allen, 1983; Berman, 1977; Easteal, 1994; Palmer & Humphrey, 1980, in Easteal, 1994). It is noted that these studies have taken place in the USA and Australia where the demographic breakdown of the population is such that Whites are usually the majority race group. In the province of KwaZulu-Natal, the White population is a minority race group as shown earlier in Table 9.

✓ In previous South African studies, Roos et al. (1992) found that in the 1980's, 65% of the perpetrators of murder-suicide were White, 29% Black, and 6% Coloured. This is in contrast to this study where none of the perpetrators were White or Coloured (see Table 8, section 8.3.3). At the time when this HSRC study as discussed by Roos et al. was conducted, living areas were racially segregated. It can be argued that due to under-policing in certain areas, murder-suicide crimes were likely to have been underreported at that time.

Osborne's (2001) more recent review of newspaper reports found that 59% of murder-suicide perpetrators were Black, 27.7% were White, 19.8% Indian and 2.4% Coloured. She reported that the White and Indian community made up a marginally higher percentage than expected compared to the country's population distribution. Osborne's study utilized newspapers across South Africa with readerships of diverse groups. For this reason, it is likely that her findings of the racial demographics of murder-suicide would be more accurate than the HSRC's earlier results.

The 1996 South African census showed that the population of KwaZulu-Natal was subdivided into four main race groups namely Indians, Blacks, Whites and Coloureds. Almost 82% of the population were Black and 9.4% were Indian. A lesser proportion, 6.6%, were White, and the Coloured population had the least number of people (1.4%) living in the province

([www.statssa.gov.za](http://www.statssa.gov.za)). Gale Street Mortuary covers all medico-legal cases in Durban. Durban encompasses living areas of mixed races and the mortuary would therefore be representative of this racial mix. It would be expected that the largest majority of murder-suicide cases would involve Black individuals, and that the second largest albeit significantly smaller proportion of cases would be from the Indian population. It was however also expected that there would be nominal cases involving the White and even less so the Coloured population.

It was not possible to obtain an accurate breakdown of the race demographics in Durban. Where these figures were available ([www.demarcation.org.za](http://www.demarcation.org.za)), their sum did not equal the total population of Durban as was specified by the government website ([www.urbstrat.co.za](http://www.urbstrat.co.za)). The figures used to establish the population of the various regions within Durban ([www.urbstrat.co.za](http://www.urbstrat.co.za)) could therefore not be used comparatively with this racial breakdown for the city of Durban.

Without a breakdown of the exact race demographics of Durban, it was anticipated that the total breakdown of race of all murder-suicide cases in the sample chosen would be approximately proportional to the racial breakdown in the province of KwaZulu-Natal. The number of Black murder-suicides should have been about 81.7% and the number of Indian murder-suicides should have been approximately 9.4%. Similarly, there should have been about 6.6% murder-suicides involving the White population and 1.4% murder-suicides involving the Coloured population. Both the Indian and Black murder-suicides slightly exceeded their expected number while Coloured and White murder-suicides were absent (see Table 9, section 8.3.3).

It is likely that the absence of cases involving the White and Coloured population were attributed to chance in relation to the small sample size. Any significant disproportion between the racial group and the number of murder-suicides would need to be calculated using comparable figures and a larger sample size.

The present data suggests that the incidence of murder-suicide in Durban is approximately proportional to the racial demographics of KwaZulu Natal. It is however noted that without accurate race demographics for the city of Durban it cannot be assumed that race either is or is not a significant variable in murder-suicide.

#### **9.3.4 Relationship between Victim and Perpetrator**

Sixty eight percent of the relationships between victims and perpetrators were classified as spousal/consortial according to Marzuk et al.'s (1992, in Nock & Marzuk, 1999) typology. A total of 18 cases out of 21 cases (85.7%) involved only the couple in the murder-suicide event. The majority of this spousal/consortial subtype (82%) was characterised by a relationship between a couple designated as a boyfriend and girlfriend. It is possible that some of the couples were married traditionally but had not been married legally. Three victim-perpetrator pairs were married legally (12.5%).

There were only two cases where a separation between the couple was explicitly stated. In one case a couple was designated as an ex-boyfriend and ex-girlfriend. The couple was divorced in another case (see Figure 6, section 8.3.4.1). Various international studies (Buteau et al., 1998; Milroy, 1993; Morton et al., 1993) found that the female was initiating divorce proceedings or had made plans to separate. Roos et al. (1992) found that in South African murder-suicides, marital difficulties were reported to be present before the incident. Due to the limited availability of victim and perpetrator antecedent history in this sample, it is likely that threatened or actual separations in relationships were a factor but were underreported.

The results from this sample follow the international pattern of studies (Allen, 1983; Palmer and Humphrey, 1980, in Easteal, 1994; Wallace, 1986, in Easteal, 1994) where murder-suicides involving a boyfriend killing a girlfriend were most common. In Canada, Buteau et al. (1993) found that the victims were all known to the perpetrator and had been living together as a couple. There was insufficient evidence in this study to ascertain whether the victim and perpetrator had been living together prior to the murder-suicide event.

In 2 out of the 3 (66.7%) cases where couples were married, another family member as well as the spouse was killed during the murder-suicide. There were two familial/pedicides. In one case a mother killed her daughter (2 years old) and in another case a grandfather killed his granddaughter (4 years old). On one other occasion, a stepfather killed his stepdaughter who was 16 years old. She was therefore classified as an adult. There were no cases where a father had killed his biological children. This is in contradiction to the findings of Cooper and

Eaves (1996) where almost one third of murder-suicides occurred when children were killed by their fathers.

There was a single incident where the perpetrator was female. She was a mother who killed her child. Wallace (1986, in Eastal 1994) and Marzuk et al. (1992) found that when the perpetrators were female, they would usually kill their children. Only in Japan (Sakuto, 1995) and in an early study in England (West, 1965, in Eastal 1994) did mothers account for the majority of the killings.

There was only one case, two victim-perpetrator pairs, where the killings were considered extrafamilial. The records did not indicate an intimate relationship between any of the victims and the perpetrator although it is likely that there was some romantic involvement.

Of the 21 cases, only 3 (14.3%) involved more than one victim-perpetrator pair. In most incidents, it appeared as if there were only two individuals in the family system. Olivier (1988) found that the families involved in murder-suicides tended to be isolated from religious systems, social systems and the macro system. In a similar way, de Jongh van Arkel (1993) viewed the family system as enmeshed and saw the boundaries of the family as closed. This made the family more vulnerable to perceived threats from outside the system.

de Jongh van Arkel (1993) looked at how usually the most “senior” member murdered the “junior” members, and related this to a hierarchy within the family. He saw the person “on top” as perceiving himself or herself to be responsible for the other and needing to make decisions on their behalf. In the same way, the perpetrator could be viewed as a narcissist with an impoverished sense of self and fluid boundaries. He (usually) would therefore have trouble distinguishing between his own thoughts and the feelings of the person serving as his self-object (Abramsky & Helfman, 1999). He would view them as being there to serve him rather as separate individuals with their own thoughts and feelings.

Many studies have examined the relationship between the victim and the perpetrator when the murder-suicide involved a couple. Various studies (Abramsky & Helfman, 1999; Buteau et al., 1993; Cooper & Eaves, 1996; Eastal, 1994; Marzuk et al., 1992; Milroy, 1995, Sakuta, 1995) reported that the murder-suicide occurred after the girlfriend or wife had separated from her partner. In many cases, it was believed that the separation was due to the partner’s



jealousy. Abramsky and Helfman (1999) postulated that when the partner left or threatened to leave, the perpetrator suffered a narcissistic wound. This wound was experienced as extreme disequilibrium. The masculine experience was usually one of emasculation. Within the couple, the narcissistic perpetrator would become primitively attached to another individual, particularly so if he had a “merger-hungry personality” (Kohut & Wolf, 1978, in St Clair, 2000). His sense of self or internal stability would be maintained by the other’s valuation of him. It would only be through the love of others that the narcissist could feel whole and worthwhile (Abramsky & Helfman, 1999). When there was a deep narcissistic wound, such as the partner leaving or threatening to leave, the future perpetrator was no longer validated. Regression to a primitive psychic organization then occurred where there was no distinction between self and other, and rage dominated.

There was insufficient data in this sample to firstly ascertain accurately how many of the partners were separated or estranged, and secondly to hypothesize what the reasons would be behind this. Such information would be available from police reports and would be stated as the motive behind the killings. The motives were however not always reported and when they were, were usually opinions of neighbours who were present at the scene of the crime. Furthermore, police cases were unevenly available thereby further hampering this type of data collection.

The majority of the relationships between perpetrators and victims involved the couple only in the murder-suicide event. This is consistent with findings of most international studies. Most of these couples were described as a boyfriend and girlfriend and it is suspected that threats of separation prior to the event were unreported. There were two cases of familial/pedicides. One of these cases included the only female perpetrator who killed her child. One case was defined as extrafamilial.

### **9.3.5 Socio-economic Status**

Much criminal behaviour, including homicide, is more commonly reported within the lower socio-economic classes (Smith & Parker, 1980, in Felthous & Hempel, 1995). A rather dated study by Wolfgang (1959) found that suicide was conversely more often reported to occur within the upper socio-economic classes. Murder-suicide has been reported to be associated with the middle and upper class (Berman, 1979; West, 1967, in Felthous & Hempel, 1995).

Factors including the level of education, occupation, and residence of the individual are seen to contribute to the socio-economic status of an individual (Schaefer & Lamm, 1992). Each of these factors will be discussed below.

#### **9.3.5.1 Level of Education**

Few murder-suicide studies have included education as a variable to be analysed. Education is important because it influences the type of employment opportunities available to both perpetrators and victims and therefore plays a role in the socio-economic status of the individual. Education, employment and financial status will directly impact upon the emotional stress of individuals.

It is acknowledged that within South Africa, education systems were historically segregated by race and that standards differed across these race groups. The multiple confounding variables that affected education in the past in South Africa do not allow for this measurement between education and socio-economic status to be made. Similarly, these confounding variables disallow any association between intelligence, motivation and level of education to be made. However, because all the murder-suicides in this study were intra-racial, it is possible to compare the levels of education between the victims and perpetrators and to hypothesize about the significance of these differences.

The level of education in the Durban sample ranged from no formal education to approximately 16 years. In the USA, Morton et al. (1998) found that in their study, the educational attainment of perpetrators and victims was similar to this Durban sample in that they ranged from 3 to 16 years of education. It is noted that the education variable in this study and the education levels in previous international studies are not entirely comparable due to the lack of a standardized education system in South African during the Apartheid era. The presentation of both results do however provide an indication of the range of education levels reached by perpetrators of murder-suicide both in South Africa and abroad.

The highest level of education achieved in the Durban sample was that of a tertiary diploma. Three victims and three perpetrators had reached this tertiary level (14%). Where the education was known and applicable, 19 (44.2%) victims and perpetrators had a secondary education. Although these individuals had reached a secondary level of education, it does not necessarily indicate that they had passed matric/grade 12. Without estimating what the

employment opportunities would be with a secondary level of education, it can be said that many of these individuals would have been limited in their choice of employment as well as their earning potential. Their level of education may have indirectly resulted in financial strain and emotional stress.

In 9.1% of the cases, the perpetrator had a higher education level than the victim. In 18.2% the victim's education level was higher than that of the perpetrator. These findings are similar to de Jongh van Arkel's (1993) previous South African study where the perpetrator was said to have a lower education level than the spouse. A partner's higher educational level may present as a problem to a narcissistic perpetrator who may feel inferior or emasculated because of his lower education level and possibly a resultant lower occupational status.

The majority of those individuals involved in the murder-suicide events had reached a secondary level of education but not necessarily matric/grade 12. It is suggested that in many cases where a relatively high level of education was not achieved, individuals would have been curtailed in their employment opportunities, and therefore also in their earning potential. In this way, the lowered education level of the individual would have indirectly contributed to his or her lowered socio-economic status. It is noted that 14% of those involved in the murder-suicide events had achieved a tertiary level of education and it is suggested that this education level may have contributed to a higher socio-economic status among those individuals.

### **9.3.5.2 Occupation**

#### **9.3.5.2.1 Occupational Categories**

A large proportion (27.9%) of this sample was unemployed at the time of their death. It can be assumed that for most this unemployment status would be a source of stress. Olivier (1988) looked at financial difficulties in relation to Maslow's Hierarchy of Needs (1954, in Papalia & Olds, 1992). She saw physiological needs as closely linked with a person's financial ability and noted that when physiological needs were threatened, a person's normal functioning was hindered.

Seven individuals (16.3%) were what could be classified as unskilled or blue-collar workers. This category includes those working in fields classified as unspecified occupations, elementary occupations and plant and machine operators. Although this indicates that these

workers were likely to be receiving a stable income, it does mean that they would have fallen toward the lower end of the income scale and were probably financially stressed.

Approximately 30% of the victims were unemployed at the time of their death. A lesser proportion, 25%, of the perpetrators were unemployed (see Table 12, section 8.3.5.1). The most commonly reported relationship between the victim and perpetrator in this study is that of intimate partners. These figures seem to suggest that the financial burden of one partner is shared with the other partner. Roos et al. (1992) found in their exploratory study that 83% of the perpetrators had been experiencing financial problems.

Other studies have similarly looked at occupational categories in murder-suicide events. Morton et al. (1988) found a correlation between employment and murder-suicide. Their study showed that 78% of perpetrators held jobs in labour or service industries. Sakuto's (1995) Japanese study found that 33% of the perpetrators were unemployed or had temporary employment and 19% were blue-collar workers.

The Durban sample showed that three individuals (7%) were considered to be associate professionals. It is assumed that those associate professionals should have had relatively less financial stressors as they would fall on the middle to upper end of the income scale. The converse was found in Osborne's (2001) South African study in that a small proportion of those involved (6%) were unemployed and a relatively high proportion (37%) were in the middle to upper income group.

#### **9.3.5.2.2 Prevalence of Security Sector Workers**

Seven individuals out of a total of 43 (16.3%) worked in the police or security sector. The perpetrator worked in this sector in all but one case. Osborne (2001) found that a higher proportion (24.1%) worked in the police or security sector. This sector was significantly over reported in the murder-suicide sample.

A multi-causal heuristic model has been used to describe the relationship between occupation and suicide (Stack 1996; Wasserman, 1992; in Maris et al., 2000). This model attributes four major factors as contributing to occupational suicide risk. These are stress associated with work in the occupation, differences in opportunities for suicide, demographics, and psychiatric morbidity predating entry into the occupation. It has been suggested that two or

more of these factors can influence the suicide rate of a given occupation at the same time (Maris et al., 2000). Murder-suicide has often been referred to as an extended suicide. For the purpose of this section, the multi-causal heuristic model for suicide will be applied to murder-suicide.

It is well known that the police force and security sectors are highly stressful areas in which to work in any country. Working in these sectors in South Africa is particularly stressful predominantly due to the exceedingly high crime rate. South Africans are reportedly 12 times more likely to be murdered than the international norm ("SA's dead speak," 2001). For the years 2000 and 2001, an average of 170 police officers were murdered per year in South Africa (Chetty, 2000).

It is expected that the high levels of crime and increased stress will have repercussions for those directly involved. In 1995, South African Police Service (SAPS) officials were eleven times more likely to commit suicide than members of the general population (Masuku, 2000). Other factors associated with police suicides include easy access to firearms, corruption among officials and a police culture unsympathetic to psychological distress (Masuku, 2000).

It has been suggested that post-traumatic stress disorder (PTSD) and depression are among the most common psychological problems experienced by policemen thereby placing them at greater risk of suicidal behaviour ("Wife slain by cop," 2000, in Osborne 2001). Factors linked to PTSD such as depression, substance abuse, moodiness and aggression are often cited as causes of police suicide and are increasingly being accredited to murder-suicide (Osborne, 2001). When it is argued that there are significant commonalities between murder and suicide, it is possible to see how factors contributing to suicide will also contribute to murder-suicide.

Internationally, the suicide rate of those working in the police force was reported to be double or more than that of the general population (Maris et al., 2000). It has been argued that this is a result of work stressors such as shift work, the public's antipolice sentiments, and continual danger on the job (Stack & Kelley, 1994, in Maris et al., 2000). Maris et al. (2000) argue that the suicide rate for the general population is not an appropriate reference group as most police are men and that men have a suicide rate four times that of women. They largely attribute the high rate of police suicides to the prevalence of men in the police force. Another contributing

factor is the availability of firearms as a highly lethal method of death. This will be discussed further in section 9.3.6.2.

The question of a premorbid psychiatric history is difficult to determine in retrospective studies where the individual as well as most of those who were close to the individual are deceased. It is noted that in any occupation, certain factors will attract one individual to that particular occupation and not another. It is suggested that issues such as power, feelings of importance or legitimised aggression may be some of the factors that draw specific individuals to work in the police force. It is hypothesized that some individuals with strong narcissistic and authoritarian traits would be drawn to this profession.

Within South Africa, private security firms are responsible for much of the same work as the police and individuals working there are exposed to very similar stressors. Although this section has primarily focussed on the police, it can be assumed that the experiences of those working as security officers would be similar.

A large proportion of those involved in the murder-suicide events were unemployed. A significantly high number of perpetrators were policemen or worked in the security sector. It is postulated that stress would be associated with both an unemployment status and with the nature of the work in the police or security sector. The broad distribution of occupational categories as illustrated in Table 13 and Table 14 is suggestive of a mixed socio-economic group of the sample under study.

#### **9.3.5.3 Town or District of Death**

Sixteen out of the 43 (37%) people involved in the murder-suicide events, lived in Umlazi. Equally, another 16 (37%) of those who died as a result of murder-suicide events lived in Durban Central. These two areas revealed a significantly large proportion of the murder-suicide events compared to the other areas in Durban.

Umlazi is an urban area that was previously termed a “township” by the previous Apartheid government. It has low-cost housing areas as well as informal settlements with poor sanitation and little privacy. Relative to other areas in Durban, Umlazi is known to have a relatively high crime rate. Pretorius (1987, in de Jongh van Arkel, 1993) postulated that murder-suicide occurred in a community where violence had a high incidence and was

culturally legitimised. Rather than violence being legitimised, it can be better understood that violence may be tolerated because there is a sense of helplessness that the status quo cannot be radically changed. Excessive crime and violence will greatly increase the levels of stress for individuals living in that area.

The finding that both Umlazi and Durban Central had equally high murder-suicides is therefore surprising because unlike Umlazi, Durban Central includes a population of middle to upper income earners as well as a smaller proportion of lower-income earners. Umlazi has a population of predominantly low-income earners. It would be expected that individuals living in Durban Central would have less financial stress, better living circumstances and relatively reduced levels of crime compared to those living in Umlazi. All of these factors should lessen the psychological stress experienced by an individual.

It is also noted that Umlazi has the largest population of residents in all of Durban and makes up 11.9% of the population whereas Durban Central makes up only 1.6% of the total Durban population (see Table 17, section 8.3.5.2). Due to the small sample size it was not possible to determine whether a significantly disproportionate number of murder-suicides occurred in Durban Central in relation to its population size. This suggests that there are additional factors, other than financial strain and a high crime that play a major role in murder-suicide. Although it cannot be deduced from these findings that murder-suicide occurred in middle to upper socio-economic groups in the sample, it is evident that murder-suicide was not restricted to the lower socio-economic group.

In summary, factors such as the level of education, occupation and area in which an individual lives can be considered to contribute toward the socio-economic status of an individual. It is acknowledged that among these factors, there are many confounding variables. The findings from this sample show that murder-suicide was not necessarily limited to the lower-socio economic group in this sample but also that the events did not specifically occur within the middle to upper socio-economic group as was reported in international studies (Berman, 1979; Felthous & Hempel, 1995).

### **9.3.6 Method of Death: The Prevalence of Firearms**

#### **9.3.6.1 Choice of Method**

A significantly high number of deaths resulted from gunshot wounds in the Durban sample. Shooting resulted in the death of 36 individuals (83.7%). Several international studies (Allen, 1983; Berman, 1977; Buteau et al., 1993; Cooper & Eaves, 1996; Easta, 1994; Hanzlick & Koponen, 1994; Milroy, 1993; Morton et al., 1998) have found shootings to be the most common method of death in murder-suicide.

Guns have been used in the majority of homicides and suicides in the USA although the incidence of suicidal death by firearms is 50% greater than that of homicide (Maris et al., 2000). Firearms were reported to be the preferred method of suicide for both men and women, followed by poisoning for women and hanging for men (Moscicki, 1995, in Jacobs, Brewer & Klein-Benheim, 1999). The NIMSS survey of fatal injuries for 1999 showed that firearms and hanging accounted for 33.3% of all suicides for that year whereas over 50% of all homicides were accounted for by firearms and one third by sharp instruments (Butchart, 2000).

South African suicide research found that White males tended to use firearms as their preferred method of suicide whereas Indian males tended to first use hanging and then shooting second. White males second method of choice was found to be gassing followed by hanging and lastly poisoning. Indian males used poisoning as their third choice and gassing as the last method of choice (Flisher & Parry, 1994, in Wassenaar & Naidoo, 1995). A Pietermaritzburg study found that their ranking to be identical when compared to this South African data (Wassenaar & Naidoo, 1995).

South African murder-suicide studies similarly found shooting to be the most common method of death. Roos et al. (1992) found that shooting was the most common method used in 35% of the murder-suicide cases under review. Second most common was gassing, followed by blunt trauma, drowning and strangulation. Burning and stabbing were least common. Hanging as a method of death was not reported. Osborne (2001) similarly found that shooting was most common, used in 78.3% of the cases. This was followed by hanging, then poisoning and drowning, and lastly stabbing.



The Durban sample presented different findings to previous South African murder-suicide studies in that stabbing, hanging and burning were the only alternative methods of death and were equally used (see Figure 11, section 8.3.6). Two individuals (4.7%) died from each of these methods (see Figure 11). The findings from this sample coincide with the South African suicide research where shooting and hanging were most common (Flisher & Parry, 1994, in Wassenaar & Naidoo, 1995; Wassenaar & Naidoo, 1995).

Hanging has been reported to be the second most frequent method of suicide in the USA and has been found to be common worldwide (Maris et al., 2000). Suicide research has shown that firearms were the most lethal method of suicide (Card, 1974, in Jacobs et al., 1999). Hanging is also viewed as a highly lethal means of death (Maris et al., 2000). There were two cases of suicide by hanging in the Durban sample. On one occasion, the method of death of the victim was not known and in the other case there was a serious attempt made on the victim's life when she was stabbed.

Wassenaar and Naidoo (1995) found that in Pietermaritzburg, burning was the third method of choice of suicide for White and Indian females. It is noted that burns were chosen as a method of death by the only female perpetrator in the study. Adelson (1991, in Marzuk et al., 1999) found that firearms were rarely the method of choice for mothers in murder-suicide events. Studies have shown that in filicide-suicide, the mother typically beat, suffocated, stabbed, strangled, drowned, gassed or threw the child from the room through the window and used a similar method for suicide (Adelson, 1991; Myers, 1970; both in Marzuk et al.). Osborne (2001) similarly found that females were less likely to use firearms and more likely to use gassing or drowning as the preferred method of death. There is little literature on burning as a method of death in murder-suicides.

Suicide by burning is a rare event in the USA (Maris et al., 2000) and within South Africa (Wassenaar & Naidoo, 1995). Burning as the method of choice for suicide usually occurs during political protests or psychiatric cases. A person who dies by self-immolation frequently uses easily available methods such as matches or lighters and often a flammable liquid. This is mostly viewed as an impulsive act (Maris et al., 2000). Within South Africa, many informal settlements do not have access to electricity and paraffin is used as a source of energy. This results in a highly flammable liquid being easily available. It is unclear from

the burns case in this sample as to whether or not the family lived in an informal settlement and whether a flammable liquid was used.

Few suicide studies have recorded “stabbing” as a method of death although it is suspected that this category would be included in “cutting”. Stabbing would instead be included as a distinct category when considering methods of homicide.

There is insufficient information to clarify the reason for the choice of method of death in this case as there is no data regarding the perpetrator’s antecedent history, such as psychiatric history, neither is there adequate information to declare what role the availability of the method played in her choice.

#### **9.3.6.2 Availability of Firearms**

Six out of 20 (30%) perpetrators in this study worked in the police or security sector and would therefore have immediate access to and experience with firearms. Friedman (1967, in Maris et al., 2000) attributed the frequent use of firearms for suicide by policemen in the USA due to familiarity, knowledge and availability.

Allen (1983), Cohen et al. (1998) and Palermo (1994) hypothesized that readily accessible firearms contributed to murder-suicide events. Various studies have shown that keeping one or more guns in the home increases the risk of suicide for both sexes. This is so even after other risk factors such as depression and alcohol abuse have been taken into account (Brent et al., 1988, 1991; Kellerman et al., 1992; Moscicki, 1995; all in Jacobs et al., 1999). It has been found that the presence of a gun in the home is strongly associated with increased risk for both homicide and suicide (Kellerman et al., 1993; Saltzman et al., 1992, both in Morton et al., 1998).

Marzuk, Leon, Tardiff, and Morgan (1992, in Maris et al., 2000) concluded from their study of suicides in New York City that the differences in suicide rates were due virtually entirely to differences in accessibility to lethal methods of injury. Varah (1981, in Maris et al., 2000) similarly found that the method chosen is that which is most frequently available. West (1967, in Berman, 1977) found that firearms were not commonly used in murder-suicide and that gassing by coal poisoning was more frequent in England. Milroy’s (1993) later study in England found that guns were in fact the major cause of death in murder-suicides. He argued

that domestic gas in England was no longer poisonous and was therefore not available as a means of death.

Sloan et al. (1990, in Jacobs et al., 1999) found an association between gun control and lower rates of suicide in the age group 15 to 24 years. They hypothesized that suicide in this age group is usually an impulsive act and therefore restricting access to handguns may have some benefit.

In the event of murder-suicide, perpetrators have been found to usually be over 30 years old (section 9.3.2) but had strong antisocial, borderline and narcissistic traits. All of these factors are commonly associated with poor impulse control (section 4.2.2). This suggests that the availability of handguns may be a factor in the high prevalence of firearms as a method of death in murder-suicides. It can be understood that having easy access to a firearm would increase the risk of violent acting out behaviour in moments of rage.

In the USA it was found that increasing rates of suicide were linked to the increased availability of firearms (Centers for Disease Control and Prevention, 1996, in Maris et al., 2000). Markush and Bartolucci (1984, in Maris et al., 2000) found that the total suicide rates showed significant statistical association to gun prevalence for all demographic groups except non-White females. A significant negative correlation between the strictness of state gun control laws and state suicide rates has been found (Lester & Murrell, 1980, in Maris et al., 2000).

Gun control laws in South Africa are comparatively lenient. In most cases, a criminal record is the only factor that will prevent an individual from acquiring a firearm licence (Chetty, 2000). There are approximately 4.5 million registered firearms in the country. This includes almost 2.8 million handguns. 3.7 million of these are registered to 2.1 million private individuals. It is estimated that there are between 500 000 and one million unlicensed firearms in South Africa (Chetty, 2000). It has been suggested that the demand for firearms as a method of self-protection increased in the early 1990's when crime and the fear of crime increased. Furthermore, during the uncertain political climate of the early nineties as well as the requirements of the law at the time, many seeking firearm licences were not properly screened (Chetty, 2000).

Canada, Australia and Great Britain have a strict firearm legislation and lower gun ownership (Maris et al., 2000) but a significantly high number of perpetrators of murder-suicide have used guns as their method of choice. This is considerably higher than the perpetrators of homicide alone who do not use guns as often for their method of choice (Buteau et al., 1993; Cooper & Eaves, 1996; Easta, 1994, Milroy, 1993). This indicates that there is more to the choice of a firearm as the method of death than simply the availability of it.

This study suggests that high firearm use by the police and security workers contributes to the high incidence of murder-suicide in this sector.

#### **9.3.6.3 Choice of Method Related to Sex**

The male perpetrators in the sample under study used shooting as the method of death in 83.7% of the cases. The male perpetrators used stabbing as their method of choice in 4.7% of the deaths, and hanging in another 4.7% of the deaths. The only female perpetrator chose burning as the method of death for herself and her daughter. This made up another 4.7% of the murder-suicide deaths.

West's (1967, in Berman, 1977) study found females to be the predominant perpetrator. In these cases, gas poisoning was the most common method. Sakuta's (1995) study in Japan similarly found a predominance of female perpetrators. In this study, firearms were also not the most popular method of death. Strangulation and poisoning by gas were most common.

The range of alternative methods of suicide is considerably narrowed by socialization according to Marks and Abernathy (1974, in Maris et al., 2000). Socio-cultural norms help define acceptable and non-acceptable forms of behaviour, including methods of suicide. Marks and Abernathy postulated that if a method were available but not normatively appropriate, it would not be used.

Various studies (Marks, 1977; Lester, 1988; both in Maris et al., 2000) have examined the cognitive associations of different methods of death. Olivier reported that female perpetrators of murder-suicide were as violent as men but that they opted for less violent means ("Anatomy of family murder," 2000). Maris et al. (2000) found that females often associated painlessness and efficiency with drugs and poisons, whereas males associated masculinity and efficiency with firearms. The majority of perpetrators in this study were male (95%) and they

used firearms in most (83.7%) cases. Females seemed to be more concerned with issues of painlessness and disfigurement, viewing suicide by firearms as “painful”, “messy” and “masculine” (Maris et al., 2000). The rarity of burning as a method of death has resulted in a lack of research regarding the choice of this method.

#### **9.3.6.4 Additional Factors Influencing Choice of Method**

Maris et al. (2000) postulated that ingestion, the leading method of nonfatal suicide behaviour, resulted in a delay of death as it took time for the medication to take effect. This allowed for rescue or intervention.

In murder-suicide events, the perpetrator often acted impulsively when overcome with rage as the depressive defense was breeched and anger surfaced (Rosenbaum, 1990). Even after an incubation period where the murder-suicide was planned, there was usually a triggering event where the perpetrator became overwhelmed by his or her emotions and acted out aggressively (Malmquist, 1995). This lack of impulse control and sense of experience of being overwhelmed with rage insists on a method that is immediate, aggressive and available. The following section will discuss the number and area of wounds to victims and perpetrators of murder-suicide seen as an expression of this overwhelming rage.

#### **9.3.6.5 Number and Area of Wounds**

The study showed that 60.9% of the victims had multiple wounds to their bodies. On the only occasion where the perpetrator sustained multiple wounds, the method of death was stabbing. The number of wounds per victim varied between one and seven gunshot wounds each, with two wounds to a victim being the most common.

Wolfgang (1958, in Nock & Marzuk, 1999) found that murder-suicide perpetrators used more acts of violence, such as shooting five times instead of one, than necessary to kill their victim. They also found that this violence exceeded the violence found in homicide alone. Nock and Marzuk (1999) postulated that the perpetrator was experiencing uncontrollable rage at the time of the event. This rage was not assuaged by killing the person with one blow and was not completely satisfied until the suicide had occurred.

The victims were most frequently shot in the head although they were often shot in various other areas of their body. On 14 (32.6%) occasions, victims were shot in the chest and on

four (9.3%) instances in the breast (see Figure 14, section 8.3.6.1). It is possible that the various bodily areas had symbolic significance for the perpetrator especially so when wounds were inflicted in various bodily areas in one victim. For the reason that 68% of those individuals involved in the murder-suicides were couples, it is likely that the bodily areas may have had sexual connotations for the perpetrator. It is suggested that these sexual connotations related to the areas of the wounds would be particularly pertinent if the victim had threatened to leave a jealous, controlling and narcissistic perpetrator, and effectively terminate the sexual relationship.

These findings suggest that the perpetrator experienced uncontrollable rage at the time of the event and was attempting to annihilate the victim completely before killing himself.

### **9.3.7 Body Location**

Information on the location of the bodies of those involved in the murder-suicides was not easily available in this study. Where information was available, the majority of the bodies were found in the bedroom (14%). It was not always clear as to whether this was the home of the victim or whether the perpetrator and victim lived together. This lack of basic data in the records was surprising.

Most studies that have considered the location of the bodies at the time of death have found that a large majority of the bodies were located in the home of the victim (Berman, 1979; Cooper & Eaves, 1996; Milroy, 1993; Sakuto, 1995). Milroy (1993) found that more specifically, most bodies were located in the bedroom.

Berman (1979) found that 14% of the crimes took place in a car. There was one instance in this study where the victim and perpetrator were found dead in a car that was parked at a service station. This was one of the three cases where the crimes were committed in a public place. In one incident, the perpetrator drove to a hotel a day after committing the homicide, before shooting himself. In another incident, the victim was found dead in the street. Cooper and Eaves (1996) reported that a larger majority of murder-suicide events occurred in a public place rather than in the home.

It is difficult to hypothesize as to why a certain area was chosen by the perpetrator to commit the homicide and suicide. There may be personal significance in the room or place chosen.

The bedroom may be of special significance for the perpetrator. Jones (1951, in Danto, 1978) postulated that sex, birth and death were extensively associated with one another. He suggested that the fantasy of dying together gratified childhood sexual fantasies. He further hypothesised that the murderer who committed suicide was fantasizing that he would die with and establish reunion with the deceased loved one, and was only to a limited extent punishing himself.

The choice of location may be part of the perpetrator's brooding (Malmquist, 1995) in deciding to where and how to commit the crime. Alternatively, in a moment of rage, the brooding may be transformed to violent action in a moment of loss of impulse control and the death may occur wherever the victim is at the time, thereby nullifying any significance of the location.

### **9.3.8 Date and Time of Death**

#### **9.3.8.1 Time of Year**

Danto (1978) reported that there was a slight decrease in murder-suicides over the mid-summer months. If the months of November, December, January, February and March are seen as midsummer in Durban, then there were a total of 6 (14%) murder-suicides during that period. These results do not indicate that there was a decrease in murder-suicide over summer but it is evident that this was not a period of the highest peaks of murder-suicide. There were however no murder-suicides for the months of February and March but in the months leading up to Christmas (November and December), 11.6% of the murder-suicides occurred (see Figure 16, section 8.3.8.2).

The Christmas season could be considered to be a financially and emotionally stressful period. It is possible that these stressors contributed to the increase in murder-suicide over this period. In the USA, Christmas would fall over the mid-winter rather than mid-summer months as it does in South Africa. The possible association between increased murder-suicides, Christmas and the particular season would be different in the USA in comparison to South Africa.

The highest number of individuals died in the months of May, August and October (65%). The results showed that murder-suicide was most frequent in these months although the statistical significance of these peaks needs to be interpreted cautiously. Over the two-year period, no murder-suicides were reported for the months of February, March and September.

The peak periods for murder-suicides were May where 12 individuals (27.9%) died and October where 10 individuals (23.3%) died. These are the months occurring in the changing of seasons, autumn and spring. This supports Berman's (1979) findings where spring and autumn months were the most common times for murder-suicides to take place.

South African suicide research found that there were seasonal peaks towards spring and autumn (Flisher et al., 1997, in Wassenaar et al., 2000). The results from this murder-suicide study correlate with South African suicide research in that the peaks were in the spring month of October and the autumn month of May. Unlike international research (1897, Durkheim, in Descloix & Wassenaar, 2000) reporting suicide nadirs in winter, this study showed that in the months of June, July and August, 23.3% of the murder-suicides occurred. It is acknowledged that Durban has a tropical climate with comparatively mild winters and therefore bioclimatic factors contributing to seasonal murder-suicide rates may differ from the rest of South Africa where there is a more temperate climate.

In summary, the months of May, August and October showed peaks in murder-suicide. A slightly disproportionate number of murder-suicides occurred in May and October. Overall, the seasons of autumn and spring showed an increase in murder-suicides. This was comparable with increased suicide rates in South Africa during these seasons (Flisher et al., 1997, in Wassenaar et al., 2000).

#### **9.3.8.2 Time of Month**

The dates of the deaths were fairly evenly distributed across the month. There was no noticeable clustering of when most deaths occurred. It is expected that the crimes would be committed at the beginning or end of the month when financial stress was at its greatest.

There is no known literature that discussed murder-suicide or suicide with regards to the time of the month.

#### **9.3.8.3 Day of Week**

A statistically significant number of murder-suicides (35%) occurred on a Monday. The majority of the deaths, 33 (76.7%), from murder-suicides events occurred on a weekday and 10 (23.3%) occurred over the weekend.



The limited international studies that looked at the day of the week that crime was committed had similar results. Berman (1977) noted that the majority (60%) of the crimes occurred on a weekday. Danto (1978) found that most incidents took place at the beginning of the week. There are no theories as to why Monday is chosen by so many of the perpetrators although international suicide statistics (Maldonado & Kraus, 1991; Schneider & Greenberg, 1994; Chia, 1981; Hassan, 1994, 1995, all in Lester, 2000) tend to show a peak on Mondays. It may be that after a weekend spent with a partner or family there were marital or other personal difficulties compounded by returning to a stressful work environment on the Monday.

As discussed in section 4.2.2, the perpetrators in murder-suicide are usually narcissistic and so a “triggering event” can be viewed as a narcissistic wound. This narcissistic wound may have occurred at some point during the weekend when the victim/s and perpetrator would usually spend time together. The rage experienced by the perpetrator does not necessarily match the injury (Kohut, 1966, in St Clair, 2000) and may in fact be overlooked by the victim. Abramsky and Helfman (1999) proposed that the perpetrator was already struggling with aggressive impulses directed toward the self. Such impulses stemmed from a sense of worthlessness and guilt. They suggested that due to the presence of dominating aggression, the perpetrator was primed to destruct. A triggering event then displaced the murderous affect onto another, as is typical of a narcissist reacting to a narcissistic wound (Masterson, 1981).

It is unclear as to how long it takes for the perpetrator to act once he has decided to commit the killings. This seems to vary for each individual. Similarly, some perpetrators wait a few minutes after committing the crime before killing themselves while others delay for a few days. The results from this study showed that two perpetrator’s killed themselves only the day after they killed their victims.

#### **9.3.8.4 Time of Day**

Data representing the time of death of perpetrators and victims was sparsely and imprecisely available. In order to establish how long it took for the perpetrator to kill himself or herself after committing the murder would require the exact time of death.

### **9.3.9 Toxicological Findings**

Unlike most other studies (Cantor & MacTaggart, 1998; Milroy, 1993; Morton et al., 1998), the Durban study did not show alcohol to have been used prior to most murder-suicide events. Of the 34 specimens sent for analysis, alcohol was detected in only one individual (5%) who was a perpetrator (see Table 30, section 8.3.9). There were no findings for other substances where specimens were requested.

Wolfgang (1958, in Felthous & Hempel, 1995) was one of the few researchers who found that perpetrators of murder-suicides were less likely to have consumed alcohol. Numerous studies (Allen, 1983; Berman, 1977; Copeland, 1985, in Milroy, 1995; Cooper & Eaves, 1996; Morton et al., 1998) have found that alcohol has been present in 20% to 50% of the perpetrators and when present in the victims is significantly less so.

Maris et al. (2000) noted that there were several groups where the association of suicidal behaviour and alcoholism was common. The presence of alcohol has frequently been observed in international studies of police officers that have completed suicide. The studies did however show that these police officers who committed suicide were often younger, less often depressed, had a history of work problems and interpersonal conflicts precipitating their suicidal actions. Factors including depression, PTSD and the availability of firearms have been attributed to the high rate of police involvement in murder-suicides (section 9.3.5.2.2). Alcohol was not discussed as a major contributing factor in police suicides or murder-suicides (Masuku, 2000).

The lack of alcohol in this sample indicates that either the offender planned and executed the crime fully comprehending the consequences or that the offender was so overwhelmed by his or her emotions that at that moment, there was no control over his or her impulses.

The findings are however surprising as it is expected that alcohol content would be higher among the perpetrators as alcohol increases aggression and depression (Ferreira de Castro et al., 1991). The findings only show whether alcohol or alternative substances were present in the bloodstream at the time of death and give no indication of a history of alcohol or any other substance abuse.

### 9.3.10 Suicide Notes

Studies that have looked at the presence or absence of suicide notes in murder-suicide cases found that between 10% and 30% of perpetrators left notes (Allen, 1983; Berman, 1977; Milroy, 1995).

Of the 21 cases of murder-suicide in the Durban sample, no suicide notes were left behind by either the perpetrators or the victims.

In a study of suicide, Cohen and Fiedler (1974, in Maris et al., 2000) found that notes were more commonly left by females, and that these females were usually separated or divorced. There was only one case of a female perpetrator in the Durban sample and she did not leave a note. If there were more female perpetrators in the sample, this finding may have been different.

It is assumed that the suicide note would usually be left by the perpetrator, particularly when viewing murder-suicide as an extended suicide. In cases where a note has been left by the victim, it is presumed that there are extenuating circumstances.

Peck (1986, in Maris et al., 2000) found that notes were more commonly left by suicides using more passive and lower lethality methods such as alcohol and barbiturates or carbon monoxide poisoning and that those who chose more lethal methods such as hanging or shooting were less likely to leave notes. He hypothesized that less immediate deaths allowed time and therefore opportunity to write a note. Maris et al. (2000) reported that females were more likely to choose these less lethal means of death further increasing the likelihood that a note would be left.

Highly lethal methods of death were predominantly used in the murder-suicide events of this study. Firearms were used in 83.7% of the cases, hanging in 4.7%, burning in 4.7% and stabbing, which can be viewed as the least lethal of all these methods in only 4.7% of the cases.

The choice of the method of death is influenced by many factors. If it is accepted that impulsivity is an inherent characteristic in the perpetrator, it is likely that the method of death chosen is that which is most easily accessible as well as one that is violent and effective. It is

therefore understandable that a perpetrator who is impulsive and violent, is responding in rage to a triggering incident, and who has access to lethal means, will not have the self-control to postpone either the homicide or suicide sufficiently in order to write a coherent note.

#### **9.4 Unavailable Data**

It is often difficult to conduct a full “psychological autopsy” (Buteau et al., 1993, p. 552) in murder-suicide studies. In most cases, the significant others died in the event and where possible interviewing proves to be too traumatic for any survivors. Furthermore, the reliance on retrospective medical and police reports does not allow for diagnostic and psychodynamic analyses (Berman, 1979).

Buteau et al. (1993) reported that by using coroners’ files to conduct psychological autopsies, the rates of psychiatric disorders obtained in this way would be conservative estimates. There was no mention of psychiatric, medical histories or criminal histories in any of the post-mortem or police reports. It is suspected that although these were uniformly not reported, they were in fact prevalent in the sample under study.

Cooper and Eaves (1996) noted that when a characteristic was mentioned in a coroner’s file, it was most likely true but that no mention of that characteristic did not necessarily indicate its absence. They theorised that all findings must therefore be underestimates. The nature of retrospective studies is such that only the data that is available in that source can be used for analysis. Although this does reduce researcher bias, it disallows opportunity for the researcher to explore areas where data is missing or insufficient.

##### **9.4.1 Depression**

It was hoped from the outset of the study that the role of depression in murder-suicide could be examined. The data available on psychopathology in general was sparse, inadequate and where available, insufficiently reliable. It was decided from the outset not to include any newspaper or magazine articles. Although these sources usually provide rich qualitative data, the reliability is often questionable.

Buteau et al. (1993) found that murder-suicide perpetrators presented a similar profile for mental disorders of major depression, suicide attempts and consultation with mental health professionals to the one obtained by King and Barraclough (1990, in Buteau et al., 1993) for

completed suicides. This again reinforces the overlap between aggression toward the self and aggression toward others and more specifically the overlap between suicide and murder-suicide.

Cohen et al. (1998) found that only one of the older perpetrators and one of the younger perpetrators tested positive for antidepressants despite reports of depression, caregiver stress and suicidal ideation. She believed that this emphasised the degree to which primary health care practitioners routinely missed symptoms of depression in patients, in particular in the aged (Cohen et al., 1998). This suggests that even where data on psychopathology is available, the prevalence of this is still underreported.

#### **9.4.2 Axis II Disorders**

Personality types on the antisocial, borderline and narcissistic continuum have often been suggested to be characteristic of murder-suicide (Buteau et al., 1993; Dorpat, 1966, in Buteau et al., 1993). Due to the lack of psychiatric antecedent history and other qualitative information in police reports, it was not possible to ascertain whether any of the perpetrators in the study had Axis II traits or disorders.

Antisocial personality disorder is often associated with externally directed as well as internally directed violence (Goldsmith, Fyer, & Frances, 1990, in Jacobs et al., 1999). It is estimated that 5% of antisocial patients eventually die by suicide (Miles, 1977, in Jacobs et al., 1999).

Studies have shown that most suicide victims who were antisocial also fulfilled the criteria for borderline personality disorder (Rich, Young, & Fowler, 1986; Runeson, 1989; Rich & Runeson, 1992; all in Jacobs, 1999). It has been found that individuals with antisocial personality disorder who have committed serious violent offences have had more prior contact with mental health systems, such as a previous suicide attempts, and less with the judicial system. The converse has been found with antisocial personalities who have committed less serious offences (Balla, Lewis, Shanok, Snell & Honisz, 1974; Blackburn, 1968; Whittet, 1968, in Olivier et al., 1998). This suggests an overlap between specific personality disorders and Axis I disorders such as depression.

Perry (1989, in Jacobs et al., 1999) found that narcissistic personality disorder was at times observed in men who committed murder-suicide. Perry noted that the extreme vulnerability to loss of self-esteem coupled with dysphoria in response to failure, criticism and humiliation would put such individuals at high risk for suicide. The typical response of rage to a narcissistic wound seems to intensify the risk for aggression that could be acted out both outwardly in the form of murder and inwardly in the form of suicide.

Abramsky and Helfman (1999) proposed that murder-suicides were typically committed by narcissistic individuals with antisocial traits. In most cases, when a narcissist experienced a rejection or criticism as an attack and a narcissistic wound to the self, he or she devalued the other in order to maintain a stable sense of self. When these narcissistic traits were compounded by antisocial tendencies, the perpetrator who is impulsive, possibly depressed and highly volatile could easily respond to his or her rage with aggression in order to regain the homeostatic balance.

## **9.5 Demographic Profiles**

This study found that the typical profile of a perpetrator would be a Black male aged 32 years. A review of the international literature found that the typical perpetrator would be a White male aged 30 to 40 years (Buteau et al., 1993; Easteal, 1994; Felthous & Hempel, 1995; Milroy, 1993; Rosenbaum, 1990). The South African exploratory study (Roos et al., 1992) found a predominance of White perpetrators but also a high proportion of Black perpetrators. Osborne's (2001) more recent South African study found the majority of the perpetrators to be Black.

The typical perpetrator from the Durban sample would have at least a secondary school education and would currently be unemployed or working in the police or security sector. There are no known studies with which to compare the highest educational level of the perpetrator. With regard to employment, Osborne (2001) found a high prevalence of police officers involved in murder-suicide but a low proportion of unemployed individuals. International studies have not usually measured an association between unemployment and murder-suicide.

The findings from this study showed that the perpetrator would typically be the boyfriend or spouse of the victim and would commit the homicide and suicide using a firearm.

International studies (Buteau et al., 1993; Easteal, 1994; Felthous & Hempel, 1995; Milroy, 1993; Rosenbaum, 1990;) as well as Osborne's (2001) South African study found that the perpetrator was likely to be the boyfriend or spouse and that he would choose a firearm as the method of death.

This study found that only one female was the perpetrator. Where this was the case, she killed only her child and herself by burning. The mother was 20 years old. The literature found that the perpetrator would less frequently be female. Where this was the case, she would be White and would be 30 to 40 years old. She would usually kill her child and herself while sparing her spouse and using a method that did not involve guns (Felthous & Hempel, 1995; Marzuk et al., 1992; West, 1967, in Danto, 1978).

The typical profile of a victim in this study would be a Black female aged 26 years with at least a secondary school education and currently unemployed. She would typically be the spouse or girlfriend of the perpetrator, and would be younger than the perpetrator. Her death would usually be attributed to multiple gunshot wounds to the head or chest. The literature found that the victims were likely to be female and were usually younger than the perpetrator. They would generally be killed by gunshot wounds (Buteau et al., 1993; Easteal, 1994; Felthous & Hempel, 1995; Milroy, 1993; Osborne, 2001; Rosenbaum, 1990).

## **9.6 Methodological Limitations of the Study**

Various limitations to the study were identified during the data collection process. These limitations will be discussed below.

This study involved the aid of a research assistant who screened incoming cases of unnatural deaths in the absence of an officially defined coding system for murder-suicide events. This presented serious difficulties. In some cases of murder-suicide, it was possible that the perpetrator may have killed the victim before travelling to another town or province and committing suicide. The result of this is that autopsies relating to the same murder-suicide cases were not always conducted at a singular mortuary. There is therefore no record of the death of the other individual/s involved in the killings at the mortuary under study. Such cases will then be recorded as a homicide at the first mortuary and as a suicide at the second



with no link being made between the two. This would lead to a underreporting of murder-suicides in the present study.

In this study, the murder-suicide event was on some occasions identified as such even though there was only one body autopsied at the mortuary. The reason may have been, as above, where the other party involved died in another region and was therefore autopsied at another mortuary yet it was made known to the mortuary that the person died in a murder-suicide case. The implication of this is that there was missing information about the case as there was no record available for one member of the murder-suicide event. Any missing data was clearly marked and noted in the statistical analysis. In summary, inconsistent official reporting, on which this study was based, may have contributed to some unreliability of the data.

Cooper and Eaves (1996) noted that, like many file-based retrospective studies, the data of interest was unevenly available. This problem was particularly evident in this study where factors contributing to the motive for the event such as antecedent history, in particular evidence of psychopathology and relationship history, were not frequently available. It was therefore not possible to use the limited available data in the statistical analysis.

As a general principle, the inclusion of multiple sources of data collection is likely to increase the reliability of observations (Mouton & Marais, 1991). As discussed in section 7.3.3, a singular measuring instrument was used for the data collection. There were however multiple sources of data. The initial data was gathered from the PM reports. This was a structured report that provided clinical information and was completed by a district surgeon. This report was substantiated by the additional information of the occupation and level of education for each victim and perpetrator as well as the police reports.

The toxicological reports were issued after laboratory tests had yielded precise results. These reports were completed at another location and then sent through to the Department of Forensic Health (Pretoria) to be filed with the PM reports. Finally, the police case numbers were followed up individually at each corresponding police station. There was room for bias in that each investigating officer wrote the report of the crime and the circumstances around the deaths based on subjective experiences of survivors, neighbours and next of kin.



While this section has identified some of the methodological limitations, section 10.1 will discuss some of the broader limitations from this study.

## **9.7 Summary and Main Conclusions**

The findings from this study showed that the incidence rate of murder-suicide in Durban for the years 2000 and 2001 was 0.89 per 100 000 people. This rate is higher than the international rate of 0.22 per 100 000 people. South African homicide and suicide statistics have also been found to be above the international average. These elevated rates seem to suggest high levels of aggression and violence among individuals within South Africa. This may be partly attributed to a violent living environment as well as a history of political unrest.

The murder-suicides in this sample did not specifically indicate that this phenomenon occurred in the middle to upper socio-economic group as has been found in international studies. The findings did however show that murder-suicide is not a phenomenon that frequently occurred in the lower-socio-economic group.

As in most other studies, a disproportionate number of perpetrators were found to be male. They usually killed their girlfriends or spouses before killing themselves. The perpetrator was found to be in his early thirties and was usually older than the victim. The perpetrator was found to be from the Black racial group on most occasions. There were no victims or perpetrators from the White or Coloured racial groups. This appears to be largely representative to the population but with no available demographic breakdown for the city of Durban, it is not possible to say whether there was any significant over or under representation.

A significantly disproportionate number of perpetrators used a firearm as the preferred method of death. This can be attributed to the high prevalence of firearms in the country, poor impulse control in the perpetrator and the fact that in all but one case the perpetrator was male. In the only case where there was a female perpetrator, she used an alternative method of death.

The majority of cases involved only couples. There were two cases of familial/pedicide, one familial/adult and one extra-familial murder-suicide. Where the perpetrator was male, he

killed a child or another adult as well as his partner. The only female perpetrator killed her child before killing herself.

A high number of police or security workers were involved in the murder-suicide events.

This significantly high proportion could be attributed to work-related stress and PTSD, availability and familiarity of firearms, the high proportion of men in the police force and possible underlying personality traits of some individuals who decide to join the police force. Alcohol was not found to be a factor in murder-suicides in this sample with only one perpetrator testing positive in the toxicological reports.

Most murder-suicides occurred in the spring and autumn months and at the beginning of the week. The frequent occurrence of murder-suicide on a Monday was found to be statistically significant. This seems to follow a Monday peak of suicide patterns.

Most of the results from this study seem to show similar patterns to the findings of many international studies. This suggests that the characteristics of murder-suicide are fairly constant across cultures and over time. It is suggested that murder-suicide is more alike to suicide rather than homicide. Although there are obvious overlaps with suicide, murder-suicide is still observed as a distinct phenomenon with characteristics of both homicide and suicide.

## **CHAPTER 10**

### **CONCLUSION**

#### **10.1 Limitations of the Study**

The specific limitations that arose during the data collection process have been discussed in section 9.6. Rather than reviewing the methodological limitations, this section will discuss the overall limitations in view of the findings that were generated.

Due to the retrospective and quantitative nature of the study, it was difficult to collect sufficient information concerning the motives and circumstances of the death without interviewing those directly or indirectly involved. The availability of police cases proved to be inconsistent and insubstantial in providing accurate antecedent histories. Specific areas of difficulty were obtaining a psychiatric history, a history of physical illness and reports of a previous criminal record.

Numerous international studies have primarily used coroner's reports to obtain demographic data. Many of these studies (Buteau et al., 1993; Goldney, 1977; Hanzlick & Koponen, 1994; Milroy, 1993; Morton et al., 1998) have been able to use this information in order to document a medical as well as social history of the individual. This seems to indicate that there is more data available in these post mortem reports. Other studies (Easteal, 1994; Rosenbaum, 1990) have found the information contained in coroner's reports to be insufficient and have used court records to supplement the information.

This study has served as a pilot for a broader national study, and due to the lack of base rates within South Africa, it has attempted to lay a foundation for future research. The sample size has been adequate for this pilot although it would have been helpful to have extended the research over a number of years. In this way, it would have been possible to measure trends as well as changes in incidence rates.

#### **10.2 Recommendations**

It is suggested that greater collaboration be sought with the police so that cases are routinely available to researchers. A prospective, longitudinal design would assist. Greater

collaboration would ensure that detailed reports by neighbours and next of kin of the motives and circumstances surrounding the case were reported. Ideally, police would need to contact the researcher when the crime occurred so that interviews with witnesses and survivors could ensue. A second alternative is to follow up with the Magistrates court once the court results become available approximately two years later. The court reports can then be used to substantiate information from post mortem reports and possibly also police reports.

It would be useful to conduct the study over a longer period of time, such as over five to ten years, so that the incidence and demographics of murder-suicide could be compared over time. This would therefore increase the overall sample size therefore increasing the reliability of the results. It is however acknowledged that this was a pilot study aiming to form a foundation for further research which in turn can utilise larger samples.

### 10.3 Conclusions

This study has investigated the phenomenon of murder-suicide within the Durban Metropolitan area. The study has allowed for the generation of incident rates as well as demographic profiles of victims and perpetrators of murder-suicide. The findings from the study were compared with previous international and domestic studies in order to note common patterns and differences. The research findings as qualified by the limitations of the study, allow for the following conclusions to be drawn.

The incident rate for murder-suicide in the Durban sample was 0.89 per 100 000. This figure is higher than the international average of 0.22 per 100 000 but needs to be accepted with caution as a small sample size was used in the study. The phenomenon of murder-suicide was not found to occur in the middle to upper income group as is the finding of other studies. It can however be deduced from the findings that murder-suicide events did not specifically occur within the lower income group in this sample.

The perpetrator was found to most commonly be from the Black population group. A significantly disproportionate number of the perpetrators were male. His mean age was found to be 32 years. He would have a secondary school education and was unemployed at the time of death. A high number of perpetrators worked in the police force or security sector. The perpetrator was typically the boyfriend or spouse of the victim. A significantly disproportionate number of perpetrators committed the crime using a firearm. The perpetrator

was female in only one case. She killed only her child and herself using an alternative method of burning.

The typical profile of the victim was found to be a Black female who was approximately 26 years old. She had at least a secondary school education and was currently unemployed. She was found to have a higher education level than the perpetrator. She was typically the spouse or girlfriend of the perpetrator and her death was usually attributed to multiple gunshot wounds to the head or chest.

It is clear from these findings that the methodology used yielded useful data to support further national research using this method. After taking the mentioned limitations into account, it is recommended that an enhanced methodology based on the one used in this study, be used in the broader national study in order to yield the most viable results.

## CHAPTER 11

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## **APPENDIX A**

Durban Metro Murder-Suicide Incidence Coding Form

# DURBAN METRO MURDER-SUICIDE INCIDENCE CODING FORM

		CODE
1	<b>Abstractor's Name:</b>	
2	<b>Study:</b>	
	<b>PART I: INCIDENT INFORMATION</b>	
3	<b>Name of Subject:</b> (eg. DOE JOHN ALAN)	
4	<b>Post Mortem Number:</b>	
5	<b>Town or District in which death occurred:</b> <div style="display: flex; justify-content: space-between;"> <div> 01 = Durban Central  02 = Umlazi  03 = KwaMashu  04 = Montlands  05 = Kosi Road  06 = Lamontville  07 = Illovo </div> <div> 08 = Phoenix  09 = Westville  10 = Pinetown  11 = KwaDabeka  12 = Reservoir Hills  13 = New Germany  14 = Queensburgh </div> <div> 15 = Chatsworth  16 = Yellowwood Park  17 = Berea  18 = Merebank  19 = Mount Edgecombe  20 = Umdloti  21 = Tongaat  22 = Other </div> </div>	
6	<b>Date of Death – Year:</b> (eg. 2001, 1985)	
7	<b>Date of Death – Month:</b> <div style="display: flex; justify-content: space-between;"> <div> 01 = January  02 = February  03 = March  04 = April </div> <div> 05 = May  06 = June  07 = July  08 = August </div> <div> 09 = September  10 = October  11 = November  12 = December </div> </div>	
8	<b>Date of Death – Day:</b> (eg. 01, 09, 26)	
9	<b>Method of Death:</b> <div style="display: flex; justify-content: space-between;"> <div> 01 = GSW – Handgun  02 = Slashing – Panga/Axe  03 = Stabbing  04 = Strangulation/Asphyxiation  05 = Crushing  06 = Motor Vehicle Pedestrian  07 = Motor Vehicle Passenger  08 = Motor Vehicle Driver </div> <div> 09 = Hanging  10 = Drug Overdose  11 = Exsanguination  12 = Bludgeoning/Blunt Trauma  13 = Carbon Monoxide Poisoning  14 = Choking/Aspiration  15 = Electrocution  16 = Poisoning/Ingestion </div> <div> 17 = Drowning/Immersion  18 = Burning/Smoke inhalation  19 = Falls  20 = Explosive Blast  21 = Other  22 = Unknown </div> </div>	
10	<b>Body Location:</b> <div style="display: flex; justify-content: space-between;"> <div> 01 = Bedroom  02 = Living/Family Room  03 = Kitchen  04 = Bathroom  05 = Hallway/Passage  06 = Garage  07 = Patio/Porch  08 = Yard  09 = Pool at Home </div> <div> 10 = Sea, Lake, River, Dam  11 = Street/Road/Highway  12 = Hospital  13 = Residential Institute  14 = Informal Settlement/Squatter Camp  15 = Bar, Shebeen, Nightclub, Disco  16 = Amusement Park, Sport Area  17 = Car Parked–Not at residence (NOS)  18 = Industrial/Construction Area </div> <div> 19 = Railway Track/Station  20 = Shop, Bank, Retail Area  21 = Hotel  22 = Work  23 = Educational Area  24 = Open Land, Beach  25 = Other  26 = Unknown </div> </div>	
11	<b>Location Proximity of Bodies of Perpetrator and Victim:</b> <div style="display: flex; justify-content: space-between;"> <div> 01 = Same Room  02 = Same Building  03 = Same Property </div> <div> 04 = Same Town/City  05 = Same Province  06 = Other </div> <div> 07 = Unknown </div> </div>	
12	<b>Presence of Suicide Note, Tape or Visual Recording:</b> <div style="display: flex; justify-content: space-between;"> <div>00 = No</div> <div>01 = Yes</div> </div>	
13	<b>Suicide Note Authorship:</b> (leave blank if no note found) <div style="display: flex; justify-content: space-between;"> <div> 01 = Perpetrator  02 = Both parties </div> <div> 03 = Victim  04 = Unknown </div> </div>	

	<b>PART II: BACKGROUND INFORMATION</b>			
14	<b>Race:</b>	01 = Asian/Indian 02 = Black 03 = Coloured	04 = White 05 = Other	
15	<b>Classification of Relationship between Perpetrator and Victim:</b>	01 = Couple/Spousal/Consort/ 02 = Familial/Intimate 03 = Familial/Adult 04 = Familial/Pedice	05 = Familial/Infanticide 06 = Extrafamilial 07 = Mass Murder	
16	<b>Type of Relationship between Perpetrator and Victim:</b>	01 = Married 02 = Married-Separated 03 = Divorced 04 = Boyfriend-Girlfriend 05 = Boyfriend-Girlfriend/Separated 06 = Parent-Child 07 = Parent-Stepchild	08 = Brother-Sister 09 = Other relative 10 = Unrelated caregiver 11 = Lovers-Homosexual 12 = Marital Affair 10 = Friend 11 = Acquaintance	12 = Employer-Employee 13 = Legal Authority 14 = Mass Murder 15 = Other 16 = Unknown
17	<b>Living Arrangement of Subject:</b>	01 = Home 02 = Long Term Care Facility	03 = Hospital 04 = Other	
18	<b>Living Characteristics for Perpetrator and Victim:</b>	01 = Together	02 = Separately	
	<b>Antecedent History: (related to perpetrator)</b>			
19		❖ Intimate Separation	00 = No 01 = Yes	
20		❖ Separation due to institutionalisation	00 = No 01 = Yes	
21		❖ Physical Health Problem	00 = No 01 = Yes	
22		❖ General Decline in Health	00 = No 01 = Yes	
23		❖ Pain and Suffering	00 = No 01 = Yes	
24		❖ Dementia	00 = No 01 = Yes	
25		❖ Depression	00 = No 01 = Yes	
26		❖ Alcohol Abuse	00 = No 01 = Yes	
27		❖ Drug Abuse	00 = No 01 = Yes	
28		❖ Other Psychiatric Problems	00 = No 01 = Yes	
29		❖ Job Problems	00 = No 01 = Yes	
30		❖ Low SES or Low Income	00 = No 01 = Yes	
31		❖ Specific Financial Stress	00 = No 01 = Yes	
32		❖ Lawsuit	00 = No 01 = Yes	
33		❖ Criminal Activity	00 = No 01 = Yes	
34		❖ Child Custody	00 = No 01 = Yes	
35		❖ History of Physical Violence	00 = No 01 = Yes	
36		❖ History of Verbal Discord	00 = No 01 = Yes	
37		❖ Loneliness or Social Isolation	00 = No 01 = Yes	
38		❖ Death of a Family Member	00 = No 01 = Yes	
39		❖ Family History of Suicide	00 = No 01 = Yes	
40		❖ Talk of Suicide	00 = No 01 = Yes	
41		❖ Suicide Threat	00 = No 01 = Yes	
42		❖ Previous Suicide Attempt	00 = No 01 = Yes	
43		❖ Previous Psychological/Psychiatric	00 = No 01 = Yes	
44		Treatment	00 = No 01 = Yes	
45		❖ Pregnant	00 = No 01 = Yes	
46		❖ Spouse/girlfriend pregnant	00 = No 01 = Yes	
47	<b>Level of Education:</b>	01 = None 02 = Primary schooling 03 = Secondary schooling 04 = Tertiary Diploma	05 = Tertiary Degree 06 = Post graduate Degree 07 = N/A 08 = Unknown	

48	<b>Occupation:</b> 01 = Unemployed 02 = Unspecified/Other 03 = Elementary Occupations 04 = Plant/Machine Operators 05 = Craft and Trades Workers 06 = Skilled Agricultural and Fishery Workers 07 = Service Workers and Market Sales 08 = Clerks 09 = Technicians and Assoc Professionals 10 = Professionals 11 = Senior Officials 12 = N/A 13 = Unknown		
49	<b>Medical History:</b> ❖ Dementia 00 = No 01 = Yes ❖ Amputation 00 = No 01 = Yes ❖ Arthritis 00 = No 01 = Yes ❖ AIDS 00 = No 01 = Yes ❖ Cancer 00 = No 01 = Yes ❖ Cardiovascular Disease 00 = No 01 = Yes ❖ Chronic Obstructive Pulmonary Disorder 00 = No 01 = Yes ❖ Diabetes 00 = No 01 = Yes ❖ Glaucoma 00 = No 01 = Yes ❖ HIV 00 = No 01 = Yes ❖ Hypertension 00 = No 01 = Yes ❖ Osteoporosis 00 = No 01 = Yes ❖ Parkinson's Disease 00 = No 01 = Yes ❖ Stroke 00 = No 01 = Yes		
63	<b>Medication History:</b> ❖ Analgesics 00 = No 01 = Yes ❖ Alcohol 00 = No 01 = Yes ❖ Antibiotics 00 = No 01 = Yes ❖ Anticholinergics 00 = No 01 = Yes ❖ Anticonvulsants 00 = No 01 = Yes ❖ Antidepressants 00 = No 01 = Yes ❖ Antacids 00 = No 01 = Yes ❖ Antihistamines 00 = No 01 = Yes ❖ Antihypertensives 00 = No 01 = Yes ❖ Cardiovascular Drugs 00 = No 01 = Yes ❖ Antipsychotics 00 = No 01 = Yes ❖ Antivirals 00 = No 01 = Yes ❖ Barbiturates 00 = No 01 = Yes ❖ Benzodiazepines 00 = No 01 = Yes ❖ Diuretics 00 = No 01 = Yes ❖ Anti-inflammatories 00 = No 01 = Yes ❖ Decongestants 00 = No 01 = Yes ❖ Laxatives 00 = No 01 = Yes ❖ Hypoglycemics 00 = No 01 = Yes ❖ Thyroid Products 00 = No 01 = Yes ❖ Vitamins 00 = No 01 = Yes ❖ Stimulants 00 = No 01 = Yes ❖ Cannabis 00 = No 01 = Yes ❖ Mandrax 00 = No 01 = Yes ❖ Cocaine 00 = No 01 = Yes ❖ Crack 00 = No 01 = Yes ❖ Heroin 00 = No 01 = Yes ❖ Amphetamines 00 = No 01 = Yes ❖ Other 00 = No 01 = Yes		
<b>PART III: AUTOPSY INFORMATION</b>			
93	<b>Age of Subject:</b> (eg. 3, 27, 101)		
94	<b>Sex of Subject:</b> 01 = Female 02 = Male		
95	<b>Manner of Death:</b> ❖ Murder 00 = No 01 = Yes ❖ Suicide 00 = No 01 = Yes		
97	<b>Number of Wounds:</b> 01 = 1 05 = 5 09 = 9 02 = 2 06 = 6 10 = 10 03 = 3 07 = 7 11 = N/A 04 = 4 08 = 9 12 = Unknown		
98	<b>Area of Wounds:</b> 01 = head 06 = arm 11 = knee		



	02 = neck 03 = chest 04 = stomach 05 = breast	07 = wrist 08 = hand 09 = genitals 10 = leg	12 = foot 13 = back 14 = N/A 15 = unknown	
99	<b>Toxicological Findings</b>			
100	❖ Analgesics	00 = No	01 = Yes	
101	❖ Alcohol	00 = No	01 = Yes	
102	❖ Antibiotics	00 = No	01 = Yes	
103	❖ Anticholinergics	00 = No	01 = Yes	
104	❖ Anticonvulsants	00 = No	01 = Yes	
105	❖ Antidepressants	00 = No	01 = Yes	
106	❖ Antacids	00 = No	01 = Yes	
107	❖ Antihistamines	00 = No	01 = Yes	
108	❖ Antihypertensives	00 = No	01 = Yes	
109	❖ Cardiovascular Drugs	00 = No	01 = Yes	
110	❖ Antipsychotics	00 = No	01 = Yes	
111	❖ Antivirals	00 = No	01 = Yes	
112	❖ Barbiturates	00 = No	01 = Yes	
113	❖ Benzodiazepines	00 = No	01 = Yes	
114	❖ Diuretics	00 = No	01 = Yes	
115	❖ Anti-inflammatories	00 = No	01 = Yes	
116	❖ Decongestants	00 = No	01 = Yes	
117	❖ Laxatives	00 = No	01 = Yes	
118	❖ Hypoglycemics	00 = No	01 = Yes	
119	❖ Thyroid Products	00 = No	01 = Yes	
120	❖ Vitamins	00 = No	01 = Yes	
121	❖ Stimulants	00 = No	01 = Yes	
122	❖ Cannabis	00 = No	01 = Yes	
123	❖ Mandrax	00 = No	01 = Yes	
124	❖ Cocaine	00 = No	01 = Yes	
125	❖ Crack	00 = No	01 = Yes	
126	❖ Heroin	00 = No	01 = Yes	
127	❖ Amphetamines	00 = No	01 = Yes	
	❖ Other	00 = No	01 = Yes	

## **APPENDIX B**

Murder-Suicide Data Collection Database

# DURBAN METRO MURDER-SUICIDE INCIDENT CODING FORM

			CODE
1	<b>Abstractor's Name:</b>		
2	<b>Study:</b>		
	<b>PART I: INCIDENT INFORMATION</b>		
3	<b>Name of Subject:</b> (eg. DOE JOHN ALAN)		
4	<b>Post Mortem Number:</b>		
5	<b>Town or District in which death occurred:</b> <div style="display: flex; justify-content: space-between;"> <div> 01 = Durban Central  02 = Umlazi  03 = KwaMashu  04 = Montlands  05 = Kosi Road  06 = Lamontville  07 = Illovo </div> <div> 08 = Phoenix  09 = Westville  10 = Pinetown  11 = KwaDabeka  12 = Reservoir Hills  13 = New Germany  14 = Queensburgh </div> <div> 15 = Chatsworth  16 = Yellowwood Park  17 = Berea  18 = Merebank  19 = Mount Edgecombe  20 = Umdloti  21 = Tongaat  22 = Other </div> </div>		
6	<b>Date of Death – Year:</b> (eg. 2001, 1985)		
7	<b>Date of Death – Month:</b> <div style="display: flex; justify-content: space-between;"> <div> 01 = January  02 = February  03 = March  04 = April </div> <div> 05 = May  06 = June  07 = July  08 = August </div> <div> 09 = September  10 = October  11 = November  12 = December </div> </div>		
8	<b>Date of Death – Day:</b> (eg. 01, 09, 26)		
9	<b>Method of Death:</b> <div style="display: flex; justify-content: space-between;"> <div> 01 = GSW – Handgun  02 = Slashing – Panga/Axe  03 = Stabbing  04 = Strangulation/Asphyxiation  05 = Crushing  06 = Motor Vehicle Pedestrian  07 = Motor Vehicle Passenger  08 = Motor Vehicle Driver </div> <div> 09 = Hanging  10 = Drug Overdose  11 = Exsanguination  12 = Bludgeoning/Blunt Trauma  13 = Carbon Monoxide Poisoning  14 = Choking/Aspiration  15 = Electrocution  16 = Poisoning/Ingestion </div> <div> 17 = Drowning/Immersion  18 = Burning/Smoke inhalation  19 = Falls  20 = Explosive Blast  21 = Other  22 = Unknown </div> </div>		
10	<b>Body Location:</b> <div style="display: flex; justify-content: space-between;"> <div> 01 = Bedroom  02 = Living/Family Room  03 = Kitchen  04 = Bathroom  05 = Hallway/Passage  06 = Garage  07 = Patio/Porch  08 = Yard  09 = Pool at Home </div> <div> 10 = Sea, Lake, River, Dam  11 = Street/Road/Highway  12 = Hospital  13 = Residential Institute  14 = Informal Settlement/Squatter Camp  15 = Bar, Shebeen, Nightclub, Disco  16 = Amusement Park, Sport Area  17 = Car Parked–Not at residence (NOS)  18 = Industrial/Construction Area </div> <div> 19 = Railway Track/Station  20 = Shop, Bank, Retail Area  21 = Hotel  22 = Work  23 = Educational Area  24 = Open Land, Beach  25 = Other  26 = Unknown </div> </div>		
11	<b>Location Proximity of Bodies of Perpetrator and Victim:</b> <div style="display: flex; justify-content: space-between;"> <div> 01 = Same Room  02 = Same Building  03 = Same Property </div> <div> 04 = Same Town/City  05 = Same Province  06 = Other </div> <div> 07 = Unknown </div> </div>		
12	<b>Presence of Suicide Note, Tape or Visual Recording:</b> <div style="display: flex; justify-content: space-between;"> <div>00 = No</div> <div>01 = Yes</div> </div>		
13	<b>Suicide Note Authorship:</b> (leave blank if no note found) <div style="display: flex; justify-content: space-between;"> <div> 01 = Perpetrator  02 = Both parties </div> <div> 03 = Victim  04 = Unknown </div> </div>		

	<b>PART II: BACKGROUND INFORMATION</b>				
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15	<b>Classification of Relationship between Perpetrator and Victim:</b>	01 = Couple/Spousal/Consort/ 02 = Familial/Intimate 03 = Familial/Adult 04 = Familial/Pedice	05 = Familial/Infanticide 06 = Extrafamilial 07 = Mass Murder		
16	<b>Type of Relationship between Perpetrator and Victim:</b>	01 = Married 02 = Married-Separated 03 = Divorced 04 = Boyfriend-Girlfriend 05 = Boyfriend-Girlfriend/Separated 06 = Parent-Child 07 = Parent-Stepchild	08 = Brother-Sister 09 = Other relative 10 = Unrelated caregiver 11 = Lovers-Homosexual 12 = Marital Affair 10 = Friend 11 = Acquaintance	12 = Employer-Employee 13 = Legal Authority 14 = Mass Murder 15 = Other 16 = Unknown	
17	<b>Living Arrangement of Subject:</b>	01 = Home 02 = Long Term Care Facility	03 = Hospital 04 = Other		
18	<b>Living Characteristics for Perpetrator and Victim:</b>	01 = Together	02 = Separately		
19	<b>Antecedent History:</b>				
20	<b>(related to perpetrator)</b>				
21	❖ Intimate Separation	00 = No	01 = Yes		
22	❖ Separation due to institutionalisation	00 = No	01 = Yes		
23	❖ Physical Health Problem	00 = No	01 = Yes		
24	❖ General Decline in Health	00 = No	01 = Yes		
25	❖ Pain and Suffering	00 = No	01 = Yes		
26	❖ Dementia	00 = No	01 = Yes		
27	❖ Depression	00 = No	01 = Yes		
28	❖ Alcohol Abuse	00 = No	01 = Yes		
29	❖ Drug Abuse	00 = No	01 = Yes		
30	❖ Other Psychiatric Problems	00 = No	01 = Yes		
31	❖ Job Problems	00 = No	01 = Yes		
32	❖ Low SES or Low Income	00 = No	01 = Yes		
33	❖ Specific Financial Stress	00 = No	01 = Yes		
34	❖ Lawsuit	00 = No	01 = Yes		
35	❖ Criminal Activity	00 = No	01 = Yes		
36	❖ Child Custody	00 = No	01 = Yes		
37	❖ History of Physical Violence	00 = No	01 = Yes		
38	❖ History of Verbal Discord	00 = No	01 = Yes		
39	❖ Loneliness or Social Isolation	00 = No	01 = Yes		
40	❖ Death of a Family Member	00 = No	01 = Yes		
41	❖ Family History of Suicide	00 = No	01 = Yes		
42	❖ Talk of Suicide	00 = No	01 = Yes		
43	❖ Suicide Threat	00 = No	01 = Yes		
44	❖ Previous Suicide Attempt	00 = No	01 = Yes		
45	❖ Previous Psychological/Psychiatric Treatment	00 = No	01 = Yes		
46	❖ Pregnant	00 = No	01 = Yes		
47	❖ Spouse/girlfriend pregnant	00 = No	01 = Yes		
47	<b>Level of Education:</b>	01 = None 02 = Primary schooling 03 = Secondary schooling 04 = Tertiary Diploma	05 = Tertiary Degree 06 = Post graduate Degree 07 = N/A 08 = Unknown		

48	<b>Occupation:</b> 01 = Unemployed 02 = Unspecified/Other 03 = Elementary Occupations 04 = Plant/Machine Operators 05 = Craft and Trades Workers 06 = Skilled Agricultural and Fishery Workers 07 = Service Workers and Market Sales 08 = Clerks 09 = Technicians and Assoc Professionals 10 = Professionals 11 = Senior Officials 12 = N/A 13 = Unknown		
49	<b>Medical History:</b> ❖ Dementia 00 = No 01 = Yes ❖ Amputation 00 = No 01 = Yes ❖ Arthritis 00 = No 01 = Yes ❖ AIDS 00 = No 01 = Yes ❖ Cancer 00 = No 01 = Yes ❖ Cardiovascular Disease 00 = No 01 = Yes ❖ Chronic Obstructive Pulmonary Disorder 00 = No 01 = Yes ❖ Diabetes 00 = No 01 = Yes ❖ Glaucoma 00 = No 01 = Yes ❖ HIV 00 = No 01 = Yes ❖ Hypertension 00 = No 01 = Yes ❖ Osteoporosis 00 = No 01 = Yes ❖ Parkinson's Disease 00 = No 01 = Yes ❖ Stroke 00 = No 01 = Yes		
63	<b>Medication History:</b> ❖ Analgesics 00 = No 01 = Yes ❖ Alcohol 00 = No 01 = Yes ❖ Antibiotics 00 = No 01 = Yes ❖ Anticholinergics 00 = No 01 = Yes ❖ Anticonvulsants 00 = No 01 = Yes ❖ Antidepressants 00 = No 01 = Yes ❖ Antacids 00 = No 01 = Yes ❖ Antihistamines 00 = No 01 = Yes ❖ Antihypertensives 00 = No 01 = Yes ❖ Cardiovascular Drugs 00 = No 01 = Yes ❖ Antipsychotics 00 = No 01 = Yes ❖ Antivirals 00 = No 01 = Yes ❖ Barbiturates 00 = No 01 = Yes ❖ Benzodiazepines 00 = No 01 = Yes ❖ Diuretics 00 = No 01 = Yes ❖ Anti-inflammatories 00 = No 01 = Yes ❖ Decongestants 00 = No 01 = Yes ❖ Laxatives 00 = No 01 = Yes ❖ Hypoglycemics 00 = No 01 = Yes ❖ Thyroid Products 00 = No 01 = Yes ❖ Vitamins 00 = No 01 = Yes ❖ Stimulants 00 = No 01 = Yes ❖ Cannabis 00 = No 01 = Yes ❖ Mandrax 00 = No 01 = Yes ❖ Cocaine 00 = No 01 = Yes ❖ Crack 00 = No 01 = Yes ❖ Heroine 00 = No 01 = Yes ❖ Amphetamines 00 = No 01 = Yes ❖ Other 00 = No 01 = Yes		
<b>PART III: AUTOPSY INFORMATION</b>			
93	<b>Age of Subject:</b> (eg. 3, 27, 101)		
94	<b>Sex of Subject:</b> 01 = Female 02 = Male		
95	<b>Manner of Death:</b> ❖ Murder 00 = No 01 = Yes		
96	❖ Suicide 00 = No 01 = Yes		
97	<b>Number of Wounds:</b> 01 = 1 05 = 5 09 = 9 02 = 2 06 = 6 10 = 10 03 = 3 07 = 7 11 = N/A 04 = 4 08 = 9 12 = Unknown		
98	<b>Area of Wounds:</b> 01 = head 06 = arm 11 = knee		

	02 = neck 03 = chest 04 = stomach 05 = breast	07 = wrist 08 = hand 09 = genitals 10 = leg	12 = foot 13 = back 14 = N/A 15 = unknown	
	<b>Toxicological Findings</b>			
99		❖ Analgesics	00 = No 01 = Yes	
100		❖ Alcohol	00 = No 01 = Yes	
101		❖ Antibiotics	00 = No 01 = Yes	
102		❖ Anticholinergics	00 = No 01 = Yes	
103		❖ Anticonvulsants	00 = No 01 = Yes	
104		❖ Antidepressants	00 = No 01 = Yes	
105		❖ Antacids	00 = No 01 = Yes	
106		❖ Antihistamines	00 = No 01 = Yes	
107		❖ Antihypertensives	00 = No 01 = Yes	
108		❖ Cardiovascular Drugs	00 = No 01 = Yes	
109		❖ Antipsychotics	00 = No 01 = Yes	
110		❖ Antivirals	00 = No 01 = Yes	
111		❖ Barbiturates	00 = No 01 = Yes	
112		❖ Benzodiazepines	00 = No 01 = Yes	
113		❖ Diuretics	00 = No 01 = Yes	
114		❖ Anti-inflammatories	00 = No 01 = Yes	
115		❖ Decongestants	00 = No 01 = Yes	
116		❖ Laxatives	00 = No 01 = Yes	
117		❖ Hypoglycemics	00 = No 01 = Yes	
118		❖ Thyroid Products	00 = No 01 = Yes	
119		❖ Vitamins	00 = No 01 = Yes	
120		❖ Stimulants	00 = No 01 = Yes	
121		❖ Cannabis	00 = No 01 = Yes	
122		❖ Mandrax	00 = No 01 = Yes	
123		❖ Cocaine	00 = No 01 = Yes	
124		❖ Crack	00 = No 01 = Yes	
125		❖ Heroin	00 = No 01 = Yes	
126		❖ Amphetamines	00 = No 01 = Yes	
127		❖ Other	00 = No 01 = Yes	

## **APPENDIX B**

Murder-Suicide Data Collection Database

Death	Sex	Age	Race	District	Year	Month	Day	Day	Method	# Wounds	Area of Wounds	Body Loc.	Rel.	Class of Rel.	Location	Alcohol	Occup.	Education
suicide	M	28	B	Umlazi	00	Jan	05	Wed	Hanging	n/a	n/a	u/k	Boyfriend	Spousal/Consortial	u/k	neg	Temp work	none
suicide	M	33	B	Umlazi	00	May	14	Sun	Shooting	1	head	u/k	Son in law	Familial/Adult	same town	neg	Police	Police dip.
murder	F	59	B	Umlazi	00	May	14	Sun	Shooting	1	neck	u/k	Mother in law	Familial/Adult	same town	neg	Messenger	Grade 6
suicide	M	30	B	Montlands	00	May	15	Mon	Shooting	1	mouth/head	Caltex Garage, in car	Boyfriend	Spousal/Consortial	garage, in car	no test	Rep	Grade 11
murder	F	51	B	Montlands	00	May	15	Mon	Shooting	7	1 head, 1 wrist, 3 r wrist, 1 chest, 1 hip/pelvis	Caltex Garage, in car	Girlfriend	Spousal/Consortial	garage, in car	neg	Teacher	Tert. dip.
suicide	M	25	B	Dbn Central	00	June	11	Sun	Shooting	u/k	u/k	u/k	Boyfriend	Spousal/Consortial	same town	neg	Security	Grade 9
murder	F		B	Dbn Central	00	June	11	Sun	Shooting	u/k	u/k	u/k	Girlfriend	Spousal/Consortial	same town	no test	u/k	u/k
murder	F	31	A	Dbn Central	00	Aug	15	Tues	Shooting	2	1 chest, 1stomach	u/k	Girlfriend	Spousal/Consortial	same town	neg	u/k	u/k
suicide	M	37	A	Dbn Central	00	Aug	15	Tues	Shooting	1	chest	own residence	Boyfriend	Spousal/Consortial	same town	neg	U/E	Grade 11
suicide	M	17	B	Umlazi	00	Oct	05	Thurs	Stabbing	3	chest	u/k	Boyfriend	Spousal/Consortial	same town	neg	U/E	Grade 5
murder	F	24	B	Umlazi	00	Oct	05	Thurs	Stabbing	3	chest	u/k	Girlfriend	Spousal/Consortial	same town	neg	Gen worker	Grade 12
suicide	M	31	B	Umlazi	00	Oct	16	Mon	Shooting	1	head	u/k	Husband	Spousal/Consortial	same town	neg	Security	Grade 12
murder	F		B	Umlazi	00	Oct	16	Mon	Shooting	3	u/k	u/k	Wife	Spousal/Consortial	same town	no test	u/k	u/k
suicide	M	30	B	Cato Manor	00	Oct	11	Wed	Shooting	1	head	own residence	Boyfriend	Spousal/Consortial	same town	neg	U/E	Grade 10
murder	F	24	B	Dbn Central	00	Oct	11	Wed	Shooting	5	back, breast	u/k	Girlfriend	Spousal/Consortial	same town	neg	U/E	Grade 12



[illegible]

murder	F	4	black	KwaMashu	01	Jul	22	Sun	Shooting	2	chest, cheek	u/k	G-daughter	Familial/Pedicide	same province	n/a	n/a	n/a
murder	F		black	KwaMashu	01	Jul	22	Sun	Shooting	u/k	u/k	u/k	Wife	Familial/Intimate	same province	no record	u/k	u/k
suicide	M	44	black	Dbn Central	01	Jul	23	Mon	Shooting	1	head	lodge	G-father & Husband	Familial/Pedicide & Familial/Intimate	same province	neg	Police	Police dip.
murder	F	20	black	Dbn Central	01	Aug	09	Thurs	Shooting	2	chest	unknown	Boyfriend	Spousal/Consortial	u/k	neg	U/E	Grade 9
suicide	M	31	black	Umlazi	01	Aug	20	Mon	Shooting	1	head	kneeling in room	Friend	Extrafamilial	same town	neg	Security	Grade 10
murder	F	33	black	Umlazi	01	Aug	20	Mon	Shooting	2	chest, l breast	bed in bedroom	Brother's girlfriend's best friend	Extrafamilial	same town	neg	U/E	Grade 7
murder	F	26	black	Umlazi	01	August	20	Mon	Shooting	1	back (chest)	kitchen	Brother's girlfriend	Extrafamilial	same town	no test	U/E	Grade 11
suicide	M	27	black	Umlazi	01	Sept	29	Sat	Shooting	1	head	u/k	Boyfriend	Spousal/Consortial	same town	neg	U/E	Grade 11
murder	F		black	u/k	01	Sept	29	Sat	Shooting	u/k	u/k	u/k	Girlfriend	Spousal/Consortial	same town	neg	u/k	u/k
suicide	M	31	black	Dbn Central	01	Oct	05	Frid	Shooting	1	head	u/k	Boyfriend	Spousal/Consortial	same town	neg	Manufact.	Grade 10
murder	F	30	black	Dbn Central	01	Oct	05	Frid	Shooting	4	head, abdomen	u/k	Girlfriend	Spousal/Consortial	same town	neg	Accountant	Tech Dip.
suicide	M	57	black	Umlazi	01	Oct	11	Thurs	Hanging	n/a	n/a	u/k	Ex-husband	Spousal/Consortial	same town	no record	Driver	Grade 11
murder	F		black	u/k	01	Oct	10	Wed	Unknown	u/k	u/k	u/k	Ex-wife	Spousal/Consortial	same town	no record	u/k	u/k