

THE PERCEPTION AND KNOWLEDGE OF SERIAL AND MASS MURDER  
BETWEEN OFFICERS AT THE ARLINGTON POLICE DEPARTMENT  
AND CRIMINOLOGY AND CRIMINAL JUSTICE STUDENTS  
AT THE UNIVERSITY OF TEXAS AT ARLINGTON

by

KENDRA NICOLE BOWEN

Presented to the Faculty of the Graduate School of  
The University of Texas at Arlington in Partial Fulfillment  
of the Requirements  
for the Degree of

MASTERS OF ARTS IN CRIMINOLOGY AND CRIMINAL JUSTICE

THE UNIVERSITY OF TEXAS AT ARLINGTON

AUGUST 2007

## ACKNOWLEDGEMENTS

I would like to offer my sincerest gratitude to Dr. Alejandro del Carmen for his patience and dedication to my success in completing this thesis. I can not thank him enough for his guidance and support throughout my graduate experience.

I would also like to extend my appreciation to Dr. Stickels and Dr. Smith for contributing to this thesis. The professors in the Criminology and Criminal Justice Department have been truly exceptional, and for that I will always be grateful. I would also like to thank all of the professors that helped in the distribution of my survey.

I am indebted to Lacy Henderson for helping me distribute my surveys to the officers at the Arlington Police Department. Without her, I probably would not have been able to get near as many completed surveys back. Thanks for all the help!

Last, but certainly not least, I would like to thank my family and friends for the continual support I have received while working on this thesis. I would not be where I am today without their love, guidance, and support.

June 13, 2007

ABSTRACT

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Publication No. \_\_\_\_\_

Kendra Nicole Bowen, M.A.

The University of Texas at Arlington, 2007

Supervising Professor: Dr. Alejandro del Carmen

The purpose of this study is to examine the knowledge and perceptions of serial and mass murder between officers at the Arlington Police Department and Criminology and Criminal Justice Students at the University of Texas at Arlington. The data for this study was obtained from a sample of criminology and criminal justice students enrolled at the University of Texas at Arlington and law enforcement officers from the Arlington Police Department. Students appeared to be more knowledgeable about serial and mass murder; however, there was little significant difference of opinion (perception) among criminology and criminal justice students and law enforcement officers.

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## CHAPTER 1

### INTRODUCTION

My consuming lust was to experience their bodies. I viewed them as objects, as strangers. If I knew them, I could not have done it. It's hard for me to believe that a human being could have done what I've done, but I know I did it...I realize what I have done is my fault, but I have to question if there is an evil force in the world and if I am influenced by it. If I am to be honest with myself, I would have to admit that if I was set up in another apartment and had the opportunity, I probably would not be able to stop. ~ Jeffrey Dahmer (Egger, 2002, p. 228-229)

People take each other's lives with a cruelty and brutality that is incomprehensible for most individuals (Meloy et al., 2004). Homicide is considered by Woodworth and Porter (2002) to be the most severe form of antisocial behavior possible. Society has not had much tolerance for homicide (Egger, 2002). It is also an event that generates much media and public interest (Rock, 1998).

Multiple murder is an example of one of these heinous crimes. Multiple murder has received considerable attention since the 1980's, and there is a substantial and continually growing field of research in this fascinating topic (Jenkins, 1989). Serial and mass murder are two specific kinds of multiple murder that have been given attention. However, there is a virtual absence of research on perception and knowledge of serial and mass murder among individuals that are not researchers.

The purpose of this study is to examine the perception and knowledge of serial and mass murder between Arlington Police Department and Criminology and Criminal Justice Students at the University of Texas at Arlington. The survey used in this study



will help identify if the perception and knowledge of serial and mass murderers are impacted by law enforcement training and level of education.

### 1.1 Public Attention

Our morbid fascination with him and his terrible acts may be a way of attempting to define him as separate and different from the rest of society. We seem to need the comfort of knowing that this serial killer is an aberration, that he is not one of us. To consider him normal would mean that anyone could be capable of these savage acts of terror and death (Egger, 2002, p. 228).

Egger's quote above refers to the infamous serial killer Jeffrey Dahmer. People have a tendency to jump to conclusions about someone who commits a horrific act, like serial or mass murder. Automatic assumptions about mental illnesses or substance abuse issues arise because people can not comprehend how a normal person could commit such awful acts.

The randomness of serial and mass murders defies the public's understanding, and the public's fear tends to increase due to the randomness (Egger, 2002). Literature in this paper will present an argument that serial and mass murder is increasing. What opinions and how much do the public know about serial and mass murder? Apart from victims, police officers are the first to come into contact with serial and mass murderers, and criminal justice students are the future researchers and professionals that will be working with this population.

Serial and mass murder is a subject of vast interest to the public, news media, and movie industry. However, despite this fact, little progress is being made in advancing the knowledge in this area (Dowden, 2005). When compared to broader homicide literature, little academic research has been conducted in serial and mass murder (Gresswell & Hollin, 1994). In the research field, there are minimal sources of

reliable information concerning the perpetrator of serial murderers and of the crime itself. There is also an absence of conceptual framework that organizes information that does exist and would give ideas for further research (Arndt, Hietpas, & Kim, 2004).

### 1.2 Definitions of Serial and Mass Murder

Until recently, mass killing was used to define all multiple murder incidences (Fox & Levin, 2005). Now, multiple murder has been divided into two different categories by academics and studies: serial murder and mass murder (Dowden, 2005). Both behaviors are uniquely different (Warf & Waddell, 2002). It is now a common practice to be able to distinguish between serial and mass murder (Jenkins, 1989).

To date, there is not a universal definition of serial murder (Dowden, 2005), despite the term being used for decades (Harbort & Mokros, 2001). The lack of agreement of the definition of serial murder varies from broad and expansive to very exact and descriptive (Arndt et al., 2004). Research on serial killers is deficient in literature and documentation (Holmes, Hickey, & Holmes, 1991). There is a lack of agreement by professionals about how many lives one has to take to be considered a serial killer (Dowden, 2005). For example, Jenkins (1994) defined serial murder as the killing of four or more victims over the course of a 72-hour period; whereas, Dietz (1986) has said that a serial killer has to take the lives of at least five or more victims. Overall, most research generally agrees that serial murder involves the killing of three or more victims, with an emotional cooling off period between each victim (Dowden, 2005). Some definitions say the murders have to be committed in different geographical locations (Dietz, 1986), whereas, other researchers think the murders need

to take place in the same area (Leibman, 1989). The serial murderer is assumed to be a single individual that carries out the crime (Dowden, 2005).

Another controversial point is motivational background of the offender. In the 1980's, serial murder was described as "lust murder" (Egger, 2002). Definitions from being motiveless, having irrational motives, and sexually motivated motives have been tossed around (Harbort & Mokros, 2001). The most cited definition for serial murder in literature, and that is used in the Crime Classification Manual (Ferguson, White, Cherry, Lorenz, & Bhimani, 2003), is the one Ressler, Burgess, & Douglas (1988) from the Federal Bureau of Investigation's (FBI) Behavioral Science Unit introduced. It defines serial murder as "three or more separate events with an emotional cooling-off period between homicides, each murder taking place at a different location" (p. 139).

Mass murder has also been difficult to define with consideration toward exact victim count. The most common definition used by researchers is the killing of three or more people by the same person in a single event (Dowden, 2005). Unlike serial murders, mass murder occurs all at one time (Kraemer, Lord, & Heilbrun, 2004). Fox and Levin (2003) declare that mass murder has been largely overlooked and ignored by academic research. Past research has indicated that mass murderers are usually quite ordinary individuals (Ramsland, 2005). Mass killings have been committed by regular everyday people, who no one would have guessed could have committed such a horrific act (Welzer, 2004).

Despite widespread attention on multiple murders, research is still in its infancy. There is a virtual absence in conceptual framework that places together what information there is and makes a way for future research opportunities (Arndt et al.,

2004). Few studies have been conducted over the public's perception of serial and mass murder. There is a virtual absence of research comparing college student's perception and knowledge of the subject compared to that of law enforcement.

Research into this topic is slim, and this paper will show what little has been done in this area of research. This paper will attempt to expose this gap in the literature.

In chapter two, the author will provide a comprehensive review of the literature with regards to serial and mass murder. This will include the history of serial and mass murder, along with their typologies and characteristics. Prevalence and comparatives of different countries will be reviewed. Profiling and its validity will also be covered in the literature review. The review will provide the reader with the base knowledge of the typologies and characteristics of serial killers, the validity of profiling these individuals, and the prevalence of these anomalous acts in the United States, as well as around the world.

The author will discuss in chapter three the creation and administering of the survey instrument used to test the perceptions and knowledge of serial and mass murder among criminology and criminal justice students at the University of Texas at Arlington (UTA) and Arlington Police Department police officers. The author will review the methodology utilized with regard to sample size, criteria for participation in the survey, and the overview of the demographics of the students and officers sampled. Chapter three will conclude with the compilation and calculation of the data using the Statistical Package for the Social Sciences (SPSS).

In chapter four, the author will provide an overview of the findings of the differences of knowledge and perception of serial and mass murder between University

of Texas at Arlington CRCJ students and police officers with the Arlington Police Department, as well as demographics. Further, issues will be discussed with regards to the findings of the survey, highlighting any statistically significant differences with regards to the knowledge and perceptions of students and police officers.

The author will conclude this paper in chapter five with a discussion of the conclusions reached, along with the limitations and shortcomings of the research. Policy implications will be included. Suggestions for possible future areas of research will be discussed as well.

## CHAPTER 2

### LITERATURE REVIEW

Serial and mass murder impact several areas that include research, law enforcement, and the general public. The way governmental entities, academic researchers, and the general public perceive serial and mass murder may lead to a solution that could help fight this tragic problem. One could argue that having knowledge on serial and mass murder could have some bearing on the perceptions of that person.

This chapter will discuss several topics that have been written concerning serial and mass murder in an attempt to inform the reader about what has been researched to show that there is a gap in the literature about the perception and knowledge of serial and mass murder of the public. Especially, gaps in the literature concerning groups, such as law enforcement officers' and criminal justice students' perception and knowledge of serial and mass murder.

A historical perspective of serial and mass murder is discussed by the researcher and knowledge areas that have been created by academic researchers that could impact the overall perception people have on this subject will be reviewed at length in this chapter. The typologies and characteristics of serial and mass murder that have been created by researchers will be discussed, as well as the controversial subject of profiling

these dangerous individuals. Prevalence and a comparative of different countries will also be discussed, as well as race, gender, and age. Limitations to the studies and research that has been developed will be discussed at length to give the reader enough information to question how much is actually known pertaining to the subject. The literature review will conclude with studies that have been conducted on the perceptions of serial and mass murder.

The objective of the literature review is to present the background and studies of serial and mass murder to present the lack of meaningful studies conducted, comparing the perception and knowledge of law enforcement officers and criminology and criminal justice students.

### 2.1 History of Serial and Mass Murder

Substantial interest in the subject of mass and serial murder has come about relatively recently; however, research has shown that the incidence of multiple murders has been taking place through the centuries (Hickey, 2002). Early work tended to focus on mass and serial killing together, without differentiating between the two (Meloy et al., 2004). Nineteenth century America lacked scholarly literature on serial and mass murder (Jenkins, 1989).

Serial murder has attracted so much attention, due to the commonality of it in American history (Jenkins, 1989); however, the subject did not receive much academic focus until the mid 1980's (O'Reilly-Fleming, 1996). The subject of serial murder was well known in the twentieth century (Jenkins, 1989), despite the term being used for the first time in 1982 or 1983 (Egger, 2002). From 1900 to 1940, there were several

recorded incidences of serial murder in the United States, some as extreme and frequent as they have been in the last two decades (Jenkins, 1989).

By far, the most powerful and famous image that reshaped the world's view of serial killing (Jenkins, 1989) was that of Jack the Ripper (Dowden, 2005). Jack the Ripper was purely fascinating for Americans and can be said to have reshaped the way people reported and interpreted murders for a generation (Jenkins, 1989). The serial killer gruesomely murdered five prostitutes in the area of Whitechapel, London, England, in the late 1800's and was never apprehended (Dowden, 2005). Jenkins (1989) contends that the image and maybe even the reality of serial killing changed between 1890 and 1920 with the concentrated publicity devoted to perpetrators that kill for irrational or sexual gain. From the 1920's, studies on serial killing began to change from qualitative to a more quantitative approach in researching offenders. There were killings that fit modern serial murder in the early twentieth century, which were killings that were committed for sexual gratification or pleasure of the offender (Holmes, Hickey, & Holmes, 1991).

Duwe (2004) attains that mass murder was rare prior to the 1960's in the United States and that research mostly takes into account mass murder that has taken place in the last couple of decades. In the 1920's, mass murder started to skyrocket before it started to decrease in the 30's and 40's. Then, no one would have expected these kinds of incidents to rise in number and identify a category of killer (Ramsland, 2005). But a spike in the 50's and 60's (Duwe, 2004) would compel criminologists and psychologists to gain knowledge about mass murderers and try to educate the public (Ramsland,



2005). Duwe (2004) points out that research done from the 1950's to the 80's was primarily focused on psychological and psychiatric case studies.

Charles Whitman is one of the most famous mass murderers in history. Mr. Whitman, on July 31, 1966, killed his mother and wife and then proceeded to kill and injure multiple innocent victims while on top of the tower at the University of Texas (Holmes & Holmes, 2001). Whitman killed 16 people and injured 30 before being fatally wounded (Duwe, 2005).

## 2.2 Typology and Characteristics of Serial Killers

There have been several attempts to provide typologies of serial and mass murderers: yet, there has been a virtual absence of studies conducted comparing individual's perception and knowledge on the subject. According to O'Reilly-Fleming (1996), the most frequent form of multiple murder is serial murder. Known serial murder activity has increased in the twentieth century (Jenkins, 1991). In criminology, researchers have scrambled to come up with typologies that help professionals comprehend this type of behavior (Fox & Levin, 2005).

Serial killers are very different from the average murderer: they do not have an immense fury or jealousy, or a profound emotion that prompts them to continuously kill. They can not be simply labeled as sociopaths or psychopaths because they are much more complex individuals than that. Serial killers have a much deeper disorganization within them that is not openly presented until they are in the heart of a crime or as soon as the crime is commencing (Morrison & Goldberg, 2004).

There have been many attempts to classify serial murderers to provide information that possibly allows professionals to better understand different etiologies

(Canter & Wentink, 2004). Classifying the American serial killer is quite difficult due to the questions extended to the definition (Jenkins, 1989). Even though it is difficult, classifications can provide a powerful step towards understanding the variety of serial killers and finding different etiologies that help to answer how such a crime could be committed (Canter & Wentink, 2004).

The Federal Bureau of Investigation (FBI) classifies serial killers into two different categories: organized and disorganized. A third category has been made called the mixed category (Baker, 2001). The organized vs. disorganized typology is one of the most cited classifications of serial killers. It was first introduced by special agents in the FBI Training Academy at Quantico examining lust and sexual sadistic murders, but has since been put forth to categorize all sexual homicides and even some types of arsonists (Canter, Alison, Alison, & Wentink, 2004).

### 2.2.1 Organized vs. Disorganized Typologies

The organized offender is usually obsessive and leaves special signatures at each crime they commit (Palermo, 2002). The organized offender is described as having an ordinary life, highly intelligent, socially competent, and more likely than the disorganized offender to hold a job. This offender plans his offense, uses restraints to subdue the victim, and brings the weapon of choice to the crime scene and takes it away from the crime scene (Canter et al., 2004). The organized typology usually selects victims within a “comfort zone” that allows him to blend in and keep a low visual appearance to avoid being noticed. The serial killer can be fixed or mobile, usually branching out farther with each killing to span a larger area to avoid detection. They hope to confuse police and destroy evidence (Baker, 2001). Organized offenders are

more likely to use a verbal approach towards the victim prior to violence (Canter et al., 2004). There is a lack of guilt or emotions toward victims so they can manipulate to gain authority and supremacy over them (Brantley & Kosky, Jr., 2005). This particular type of offender usually follows the same modus operandi and victim abduction theme (Baker, 2001).

Organized offenders may kill at increased numbers due to fantasies that strengthen their desires and make the killer practice the event in their head to make it as perfect as possible (Brantley & Kosky, Jr., 2005). Findings suggest the organized killer goes through the following cycles. First is the fantasy phase, where the killer spends time fantasizing about his obsession (Baker, 2001). Power is a common theme in fantasies (Purcell & Arrigo, 2006). Second, the compulsion phase is when the killer decides to act out his compulsions of his sexual ritual and fantasy (Baker 2001). Compulsion in the serial killers drive them into acting on their fantasy (Purcell & Arrigo, 2006). The next phases are: planning phase (plans how he is going to catch his ideal victim), prowling phase (killer creeps near a potential crime scene), victim luring/capture phase (the killer implements his plan to get confidence from the victim), killing phase (killer finds and incapacitates his victim, then transfers and isolates the victim to the planned location). After these phases are accomplished, the killer fulfills his fantasies and takes the body to the predetermined dumpsite (Baker, 2001). According to Fox and Levin (2005), serial killers act out their dreams (fantasies) to every last detail. Then, according to Baker (2001), the cooling off phase takes affect where the killer's tension subsides. The fantasy is complete until the next urges emerge again, and the phases are continually recycled. The more the killer murders, the more

the violence escalates and the intervals between killings get shorter, which is when the killer tends to make more mistakes by leaving clues and evidence behind.

The disorganized offender, just like the category entails, has a sense of disorder at the crime scene, and is more likely to be socially inept, below average intelligence, and shows little detection of preplanning. More evidence is left behind than with the organized killer, usually including blood, semen, fingerprints, and the murder weapon. There is minimal use of restraints, and the victim's body is often displayed in open view (Canter et al., 2004). Disorganized serial killers generally have a mental disorder of some kind and therefore commit more delusional related killings. They kill more spontaneously, so crime scenes are more chaotic, and there is more significant evidence left behind. After each incident, the victims' bodies are usually found quickly, and are usually at the same crime scene location (Baker, 2001). The disorganized offender attacks opportunistically and lives in close proximity to the crime scene (Canter et al., 2004), thus having limited geographic mobility (Baker, 2001). The lack of normal or healthy relationships increases sexual ignorance and the potential for sexual perversions or dysfunctions during the attack (Canter et al., 2004). This type of offender tends to stand out in the community for their bizarre behavior (Baker, 2001).

In the Crime Scene Manual, a third type of offender is introduced: the mixed typology offender. This typology may include more than one perpetrator, unanticipated events taking place during the attack that were not planned for, and may escalate into different patterns during the attack. There is poor concealment of the body, more disarray of the crime scene, and a great deal of manual violence, and the offender(s)

may be young or involved in substance abuse (Canter et al., 2004). The mixed classification is less helpful for profilers and investigators (Baker, 2001).

This classification system looks at personality characteristics of an offender taken from the crime scene. Many researchers have questioned the validity of the division of serial killers (Canter & Wentink, 2004). Questions concerning the widely cited typology have arisen about the credibility of the categories, due to it being used in movies and media frequently (Canter et al., 2004).

Canter et al. (2004) looked at 100 U.S. serial killers and focused on each one's first murders and found that no distinct subset of characteristics were reflected among the offenders. They did show a subset of organized features that are found to be typical of most serial killings, but found that disorganized features are rare and do not form a distinct type of offender.

### 2.2.2 Holmes and DeBurger Typologies

Another typology offered by Holmes and De Burger is classifying serial killers into visionary, mission-oriented, hedonistic, and power/control-oriented categories (Fox & Levin, 2005). The visionary serial killer is not considered psychotic because they understand legally that murder is wrong. They have no empathy or feelings, or character defects like antisocial personality, and they have severe breaks with reality, resulting in a more spontaneous killing. The killers have hallucinations and delusions (O'Reilly-Fleming, 1996) and believe they have spoken to God, Satan, an angel, or some other supreme being and that the messenger will give them a description of the person to kill (Holmes, Hickey, & Holmes, 1991). The mission oriented serial killer

tries to rid the world of the individual's idea of a certain evil (Fox & Levin, 2005) to make society better (O'Reilly-Fleming, 1996).

The hedonistic serial killer strives for pleasure they obtain through fatal violence and personal sexual gratification (Holmes, Hickey, & Holmes, 1991). The hedonistic category has three subtypes: lust, thrill, and comfort killer (Fox & Levin, 2005). Lust killers have combined violence and sexuality to associate sexual arousal with the victims' suffering. Thrill killers long for the excitement that they obtain from killing, and comfort killers murder to benefit from the death of the victims in some form through monetary, insurance, or property gains (O'Reilly-Fleming, 1996). The recreational, hedonistic or lust killers have very similar traits. These murderers hunt and kill people like prey for pure gratification. They kill for the thrill of watching their victims suffer and then die (Baker, 2001). "Thrill killers" was a phrase that began to be used in the 1920's and is a translation that was replaced with the more modern term of "lust killers" (Jenkins, 1989). The recreational or lust serial killer falls into the organized category, is more intelligent and educated, and may hold a job (Canter & Wentink, 2004). The recreational killer is usually married, white, around the age of 25 to 35, and usually kills people within his own race (Baker, 2001). They are ordinarily respected in the community and may have a family, have a neat appearance about them, and be a lot more compulsive, but still plan their attacks on victims. Acts such as cannibalism, necrophilia, and dismemberment are not uncommon in this type of serial offender (Canter & Wentink, 2004). Activities that recreational killers likely participate in, before leading up to murdering humans, are killing and torturing animals and sadistic rape. Recreational serial murderers kill to find the ultimate release of emotional

and tension buildup. The recreational killer is narcissistic and finds people not worthy of his presence (Baker, 2001). The comfort serial killer is mostly made up of females and kills for material reasons and usually kills someone to whom they are already acquainted (Holmes, Hickey, & Holmes, 1991). Gratification of self is of utmost importance to the hedonistic killer type (Baker, 2001). The power seekers want the ultimate domination over another human being (Holmes, Hickey, & Holmes, 1991).

The Holmes and De Burger typology has received considerable attention and has been under considerable scrutiny due to overlapping categories, lack of motive lists, and the absence of empirical validation to back up the author's findings (Dowden, 2005). It also makes it hard to discern what category a killer should be assigned (Canter et al., 2004).

Holmes and Holmes modified Holmes and De Burger's typology only dropping "comfort" killer, and the "power" killer now has aspects of control in its characteristics (Canter et al., 2004). The Holmes and Holmes classification system can be distinguished as a division of the organized/disorganized continuum. Holmes and Holmes gave no account of how they came up with their classification system with the material used (Canter & Wentink, 2004).

Canter and Wentink (2004) looked at crime scene evidence of 100 U.S. serial murders to compare them with the Holmes and Holmes classification model and found that most subjects of the study fit the "power or control" type, thus concluding that it is not a distinct subset. The researchers also concluded that limited support was found for the lust, thrill, and mission styles.

### 2.2.3 Female Serial Killers Typologies

Researchers in the field of serial murder are attempting to establish a female serial killer typology system, like there is a typology for men. Holmes, Hickey, & Holmes (1991) found a broader typology, proclaiming that women serial killers can be distinguished between geographically stable or geographically transient perpetrators. Most women serial killers fall in the geographically stable typology that live and seek out their victims in the same location, which increases their likelihood of getting caught. Geographically stable serial killers reside in their “comfort zone,” where the killings take place. Approximately 60 to 75% of serial killers are geographically stable (Arndt et al., 2004). Geographically transient women killers are those who continually move and travel throughout their killing career and, generally, present the same problems as men that are in this category (Holmes, Hickey, & Holmes, 1991). Geographically transient killers roam a span of several cities and states to do their killing to increase the avoidance of apprehension (Arndt et al.). During the 1980’s, Jenkins (1989) used the term “roam” killers instead of geographically transient. Hickey (2006) has estimated that highly transient serial killers are responsible for about one-third of all serial killers’ victims.

Even though female serial killers are very rare, they kill usually because of relationships that have gone bad. The female serial killer usually kills someone she knows, and it usually takes place inside her own home (Holmes, Hickey, & Holmes, 1991). Hickey (1991) studied thirty-four female serial killers and found 97% were white and started killing at the mean age of 33. They usually killed for comfort purposes: money, insurance benefits, or business interests, and those that were not



motivated by comfort purposes usually killed because of sex, revenge, or for love relationships gone wrong.

Some research warns against using typologies to classify multiple murderers. By grouping individuals together into categories results in losing information about each individual and the horrific crimes they carried through. There are problems with typologies overlapping each other and how the categories are operationalized that brings into question their validity and reliability (Skrapec, 2001). Fox and Levin (2005) argue typologies of serial and mass murder overlap. The two researchers have created five generic typologies for multiple murder: power, revenge, loyalty, profit, and terror.

#### 2.2.4 Serial Killer Characteristics

Serial killers enjoy the perverse celebrity status bequeathed to them by the media which they worked so “hard” to achieve, and some serial killers keep all press clippings and memorabilia to reinforce their narcissistic qualities. The serial killer may even personally contact the media or the police to taunt or humiliate them and to relish in their feelings of superiority, and this fatal mistake can lead to their demise and capture. If not caught, serial killers will continue to kill (Baker, 2001).

The killing of a stranger can not be perceived as being motivated by previous encounters and interaction with the victim, but, rather, is regarded as an outcome of an interpersonal motive of the killer. It is very important to understand why serial killers behave the way that they do (Egger, 2002). Serial killers often mistrust others; have feelings of rejection, worthlessness, and are unable to cope with stress efficiently. Their feeling of failure is masked by an artificial poise of self-control and self-confidence (Arndt et al., 2004). Serial killers use charm and trickery to lure and deceive their

victims (Baker, 2001). Dehumanization of the victim may help ease restraint of the offender from attacking a person (Day & Vandiver, 2000).

Most serial killers murder strangers, making it harder to detect or even apprehend the perpetrator, and thus being even harder to collect accurate data (Holmes, Hickey, & Holmes, 1991). Most serial killers kill within their own race (Kraemer et al., 2004). The serial killer will only deviate from the ideal and preferred victim when they are not available. Serial killers modus operandi usually involves overpowering and killing their victim in a remote location to rule out the risk of possible eye witnesses (Baker, 2001).

Many serial killers are not considered by the people who know them to be abnormal, unusual, or dangerous (Morrison & Goldberg, 2004). Serial killers fit in with the rest of the crowd, without drawing attention from others in society. They are the unacknowledged, speciously generous average person (O'Reilly-Fleming, 1996). Serial killers do not look or act like people that parents warn their children against. They are extremely clever in how they present themselves (Fox & Levin, 2005).

Serial killers have been known to be called psychopaths, sociopaths, and to have antisocial personalities. How could someone not be mentally ill and commit such heinous crimes (Shon & Milovanovic, 2006)? Psychopaths have affective, behavioral, and interpersonal issues that make them manipulative, selfish, and lack guilt or remorse (Egger, 2002). Depression is observed in the history of many serial killers. Serial killers are mentally anomalous and have traits of personality disorders such as antisocial, borderline, sexual sadism, and psychopathy (Brantley & Kosky, Jr., 2005). Serial killers often are portrayed as having antisocial personality traits (Hickey, 2006).

Giannangelo (1997) wrote there should be a separate classification in the Diagnostic and Statistical Manual of Mental Disorders (commonly referred to as the DSM) for serial killers. The majority of serial killers are not mentally ill. In a study conducted by Warren et al. in 1996, the researchers found that only 1 in 20 sexually sadistic serial killers were psychopaths (Fox & Levin, 2005).

Serial killers tend to spend a great amount of time fantasizing and preparing for a crime that eventually becomes the perpetrator's reality (Ferguson et al., 2003). The use of fantasies is used as a compensatory mechanism to better manage the disappointment, rejection, and humiliation the killer feels and comes into contact with in his or her life. Fantasies can be violent and contain grandiose thoughts and persecution (Meloy et al., 2004). Ressler contends in his book, Sexual Homicide, that most serial killers engage in core behaviors, behaviors that they must involve themselves in, in order to fulfill their fantasies. These behaviors can include compulsive physical and sexual rituals (Baker, 2001). Fantasies of sexualized aggression are of commonality with serial killers (Arndt et al., 2004). Perpetrators repeatedly kill strangers for recreational purposes, hoping to improve the fantasy until they achieve the perfect one (Baker, 2001). Fantasies are addicting to the serial killer, but eventually lose potency, resulting in tryouts and eventually becoming reality. Then it becomes a never ending cycle of trying to free themselves from the emptiness by dominating and destructing others, and by becoming more violent and severe in their acts (Arndt et al., 2004). Obsession by the serial killer makes him repeat rehearsals, search for new victims, and afterwards, feel disappointed if his fantasy is unfulfilled (Baker, 2001).

Contrary to popular belief, most serial killers are not psychotic. Serial killers have also been said to have a sadistic personality disorder, which brings more terror and violence. With this combination, along with some obsessive compulsive features, perverse fantasies and violent behavior is a deadly formula (Baker, 2001). As the murders increase, usually the intervals between crimes shorten (Arndt et al., 2004), which Mott (1999) concluded that the offender has a greater chance of apprehension with the more serial killing that takes place.

Goodwill & Alison (2005) studied thirty-five serial killers that had killed at least five victims, compared them to serial rapist and serial burglars, and found that serial killers orient their region of victimization towards their first victim's geographic location, not their home base. The researchers also found that serial killers will maximize their travel for each victim to avoid the same area and getting caught. This information for their study was found through archival sources, such as court transcripts, magazines, and newspapers.

In a sample carried out by the FBI, prior offenses by serial killers were: 84% assaults during adolescence, 62% destructing property, and 52% admitted to fire setting (Arndt et al., 2004). A study by Godwin (2000) concluded that 64% of participants had been convicted of burglary, theft, or robbery, and 45% had a history of sexual offenses.

Kraemer et al. (2004) studied 157 offenders of serial killing that had a total of 608 victims and found that serial offenders target more women than they do men and kill more strangers than relatives and friends. The study also found that serial killers kill more for a sexual motivation than do regular homicidal offenders. Men serial murderers kill usually for psychological gain that is intrinsically motivated for gains,

such as sexual pleasure, ultimate power over another person, and for hedonism (Holmes, Hickey, & Holmes, 1991). Serial sexual murderers murder solely for their sexual gratification in the perpetration of violence (Skrapec, 2001). The sadistic perpetrator receives sexual pleasure from another's physical suffering. Sadistic behavior is a diverse set of behaviors that include both non sexual and sexual pleasure through inflicting emotional or physical pain on another person. Sadistic behavior has long been associated with psychopathy. There has been a virtual absence of research available on sexually sadistic murderers (Porter, Woodworth, Earle, Drugge, & Boer, 2003). Sexual serial murderers can be said to favor manual ways of killing their victims, such as strangulation, bludgeoning, and stabbing (Harbort & Makros, 2001). The career length of a serial killer is approximately four to five years, but is hard to know for sure due to extreme outliers who never get caught or go years undetected, plus people who spend time in prison for other offenses or in mental hospitals (Arndt et al., 2004). Serial killers, once caught, are known to exaggerate the actual number of people murdered. Like many others, they want recognition and notoriety for what they have accomplished (O'Reilly-Fleming, 1996).

Again, the objective of this literature review is to present the background and studies of serial and mass murder to present the lack of meaningful studies conducted comparing the perception and knowledge of law enforcement officers and criminology and criminal justice students on the subject. The gap in literature can only hurt the progression of educating the individuals that are going to work in this field and apprehending the perpetrators of these heinous crimes.

### 2.3 Typology and Characteristics of Mass Murderers

Until the late 1980's, the media was still using serial and mass murder interchangeably (Egger, 2002). Mass murder has become more common in recent years from workers killing co-employees to school kids viciously murdering other peers. Few crimes generate as much attention as murder. Depending on their magnitude and how much the media gets involved, some incidences of mass murder become landmark events embedded in people's memory (Carcach, Mouzos, & Grabosky, 2002). Despite concerns and media coverage, mass murder has received relatively little attention compared to serial murder (O'Reilly-Fleming, 1996). Mass murder has received minute media attention. Only when a major crime of mass murder is committed does the media alert society about how dangerous mass murder really is (Holmes & Holmes, 2001).

Few researchers have tried to find a typology for mass murder (Fox & Levin, 2005). Holmes and Holmes (1992) have distinguished between forms of mass murder: disciples, family annihilators, disgruntled employees, set and run, and pseudo-commandos. The disciple killer is usually female and is under influence of another person called a charismatic leader. Victims are usually selected by the male charismatic leader, and the crime is carried out the way the leader wants (Holmes, Hickey, & Holmes, 1991). The charismatic leader's motive is usually for psychological or expressive gain of hierarchy (Holmes & Holmes, 1994). The disciples are cult members who kill for the cause of the cult. Family annihilators murder family members before they usually commit suicide (O'Reilly-Fleming, 1996). The family annihilator often feels alone and helpless and usually carries out their rampage on people they live with (Holmes & Holmes, 1994). Lester et al. (2005) used familicide instead of the term

family annihilator. Geographic mobility plays a small role, and reasons for the killing are unclear to police, as well as to the perpetrator (Holmes & Holmes, 1994). The likelihood of offender suicide is greater in familicide than in cases involving other types of killings (Kivivuori & Lehti, 2003). Familicide is also the most common form of mass murder (Duwe, 2005). Research has found that women who murder their children, with the exception of newborns, are more likely to commit suicide upon the completion of killing the kids (Messing & Heeren, 2004).

Disgruntled employees take revenge on those who have embarrassed them or caused them the loss of their jobs (O'Reilly-Fleming, 1996). The disgruntled employee usually has lost a job or is on leave and has a history of receiving psychiatric help, and their selection process is not random. They pursue a specific place, but kill random people inside, besides their primary target. They are trying to right a wrong, and geographic mobility is very limited (Holmes & Holmes, 1994). The set and run murderers plan carefully to avoid detection and are able to escape (O'Reilly-Fleming, 1996). Set-and-run killers make sure they escape before the deaths of their victims occur. Victim selection varies, and motive is usually psychological. This type has geographic mobility (Holmes & Holmes, 1994). Pseudo-commandos are power types that have a fascination with guns, automobiles, and motorcycles (O'Reilly-Fleming, 1996). The pseudo commando has exotic weapons of abundance and carries out the mass murder after careful planning. The personality of this perpetrator is unclear, but the person lashes out at society to teach it a lesson. Geographic mobility is not an issue (Holmes & Holmes, 1994).

The profit-motivated mass killer does not necessarily hold a grudge on the victims, but eliminates witnesses to the crime being committed (Fox & Levin, 2005). Another typology formed by researchers is the mentally disordered that suffer from a mental disorder and invoke on multiple violent episodes of murder (O'Reilly-Fleming, 1996). Other typologies include terrorists (such as Timothy McVeigh) who killed strangers, usually for a political statement of some kind, and someone who runs amok (Lester et al., 2005).

### 2.3.1 Studies on Mass Murder

According to Duwe (2005), Levin proclaimed, approximately 95 percent of the time, there is a precipitation event like divorce or losing a job that triggers the mass murder occurrence. A number of other professionals have asserted that mass murderers are at an increased risk of being suicidal. Mass murderers make the statement they wanted to make, and then commit suicide or "suicide by cop". Their ultimate act of revenge usually turns out to be a suicide mission. Mass murderers carry out their multiple homicide missions and then expect to be killed in the course of action (Ramsland, 2005).

There have been only a few documented studies that have specifically researched the effects, if any, of incidences of mass murder on subsequent homicides. Using a disaggregating strategy and intervention analysis, Carcach et al. (2002), looked at whether the Port Author Massacre in Australia that killed 35 people in 1996 had an impact on subsequent homicides. The researchers found that it did not have a long lasting affect on homicide in Australia.



Incidents, consisting of 143 rampage homicides, were studied, and the researchers found that the total number of people killed was higher when the mass murderer completed suicide before being caught by authorities (Lester et al., 2005). Most mass murderers are not spontaneous, but deliberate and plan everything to the exact (Fox & Levin, 2005) to get even (Ramsland, 2005). The mass murderer suffers from a lengthy history of frustration and failure, and an inability to cope with stress. In mass murder there is social isolation of the perpetrator, who is likely to have experienced a loss in a relationship or at work that is a triggering event for the person (Messing & Heeren, 2004).

They are likely to have been rejected and frustrated continually with life (Messing & Heeren, 2004), and Dutton (1999) found that rejection in childhood is typical for a mass murderer. Perpetrators of mass murder can not acknowledge failure or an insult, whether it is real or conjured up. They harbor grudges and feel a need to get revenge against those who are to blame (Ramsland, 2005). The majority of mass murderers have clear cut motives. They tend to murder for the sake of revenge (Duwe, 2004) and hate (O'Reilly-Fleming, 1996). Mass murderers do not take responsibility for their actions, always placing the blame on others. Mass murderers are mostly considered "loners" and often lack a strong support system (Duwe, 2004). Assaults against one's reputation and status can likely cause feelings of hostility and vengeance that may produce actual aggression by the offender (Bering & Shackelford, 2004). Mass murderers can be and usually are triggered by a "final straw" effect: which could be a loss of a relationship or job problems. A firearm is used in approximately three-fourths of incidences of mass murder (O'Reilly-Fleming, 1996).

Both adults and adolescents use narcissistic defenses, but the adults tend to specifically structure their self identity, a structure that might occur due to maturity (Meloy et al., 2004). Mass murderers generally do not select their victims on a random basis, but are on suicidal rampages, killing people that they want to get even with before taking their own life (Fox & Levin, 2005). Normally in mass murder the offender dies at the scene by either committing suicide or by being shot by the police (Holmes & Holmes, 1994). Piorowski (1997) asserts that homicidal individuals are impulsive, easily stressed, and have a hard time controlling emotions, especially anger.

A study of thirty-four mass killers that were adolescent boys, 19 or younger, was conducted, and the researchers found that adolescent mass killers are often predatorily rather than violent and do not show typical signs of sudden or escalating emotions. Most were considered loners and had substance abuse issues, and half had been bullied before they committed their act of violence. Depressive symptoms and antisocial behaviors were found in most of the offenders (Meloy, Hempel, Mohandie, Shiva, and Gray, 2001).

In a more recent study conducted by Meloy et al. (2004), thirty adult male and thirty-four adolescent mass murderers were compared. Similarities between the two groups included a fascination with weapons and war; however adolescents are more likely than adult mass murderers to leak (referred to as 'leakage') information of their intent to take revenge on a person(s) to a third party. Half of the adults and approximately 23 percent of the adolescents had previous psychiatric histories.

McGee and DeBernardo (1999) studied fourteen cases of adolescent mass murderers and came up with a profile nicknamed the "classroom avenger"; someone

white, average sixteen years of age, middle class, no history of mental illness, but could be diagnosed with depression or a personality disorder, disability, or retardation. He is perceived as a “loner” with attachment difficulties, interested in violence, but has no history of physical violence. His violent fantasies and careful planning is triggered by rejection or a disciplinary action of some kind.

The U.S. Secret Service studied forty-one people involved in school shootings and found that the incidences were rarely impulsive, and there was no profile to obtain from them. Most were bullied in school and had used or had access to guns. Out of the forty-one people, only ten were interviewed by the Secret Service (Meloy et al., 2004).

Verlinden, Hersen, and Thomas (2000) studied nine adolescent mass murderers and found that these individuals experienced social isolation, antisocial behaviors, uncontrolled anger, depression, blaming others, threatening violence, and having a thought out plan. They had lack of parental supervision and were not in best relations with their parents. Warning signs were presented but not taken seriously, and the main motivation for the killing was revenge toward peers. In adolescent mass murder, firearms are the weapon of choice (Meloy et al., 2001).

Lester et al. (2005) looked at ninety-eight incidences of mass killing and found that the killing became less deadly over time, but were more deadly if the killer had a marked interest in guns and who had parents who were divorced. They also found that the killers who were shot by police were more deadly than killers that took their own lives after the mass murder took place. Duwe (2004) studied 909 mass killings that took place from 1900-1999, attempting to fill a gap in research, and found that during the first two-thirds of the twentieth century, mass killers were older, more suicidal, and

less likely to use guns. Duwe used newspaper sources for the data on serial killers from 1900-1975, and the FBI's Supplementary Homicide Reports (SHR) were Duwe's main source for the data from 1975 to present. Perpetrators of mass killings usually prefer to use guns, and they do not exhibit suicidal behavior: however, Duwe later states in the same article that they are up to five times more likely to commit suicide than ordinary homicidal offenders.

Mass murder has received little attention in academic research, therefore, little is known about the phenomenon. Unlike serial murder, mass murder is not as much of a challenge to law enforcement, because a mass murderer is typically found at the crime scene. Mass murder is not a modern phenomenon: it has been taking place throughout history all over the world (Holmes & Holmes, 1994). Mass murder does not generate the same fear in the general public as serial murders (O'Reilly-Fleming, 1996). The panic associated with mass murder is direct and severe, but short lived compared with a serial murder (Holmes & Holmes, 1994). A study conducted by Dowden (2005) found that limited research in serial and mass murder has dealt with typologies and theory development.

Researchers have published articles providing information on the public's fears and insecurities, as is evident by the previous pages, yet studies producing figures validating the research have not been frequently published.

#### 2.4 Profiling Serial and Mass Murderers

Before the 1970's, when the Federal Bureau of Investigation (FBI) started using it, psychological profiling was almost non-existent (Duwe, 2005). With serial murder increasing, the FBI's Behavioral Science Unit was able to use profiling as an

investigative tool. Profiling offenders involves working backwards starting with the crime scene to try and develop a description, often referred to as a profile, of the perpetrator of the crime (Kraemer et al., 2004). Psychological profiling is a postulation that looking at the scene of the crime can lead to proof concerning the psychological state of the perpetrator (Hickey, 2006). The scene of the killing, known as the crime scene, can tell us something about the suspect or suspects (Egger, 2002). The information gathered can be made into a profile that can be an investigation tool for law enforcement (Hickey, 2006). A profile is the foundation to defining serial killers (Baker, 2001). Profiling is a useful tool and should be acknowledged as a working hypothesis to apprehend the killer because each perpetrator is uniquely different in behavior and personality (Palermo, 2002). The main goal of profiling is to narrow possible suspects, rather than to identify a single guilty criminal (Torres, Boccaccini, & Miller, 2006).

According to Palermo (2002), there are two types of profiling: general and specific. General profiling is the general investigative process of any kind. Specific profiling is more refined in collecting evidence at the crime scene, with the goal of drawing a typology of characteristics and psychological makeup of the perpetrator that committed the crime.

Psychiatrists and psychologists have made a great impact to the early development of profiling. Some profiling is carried out by mental health professionals, though most is done by trained law enforcement agents (Torres et al., 2006). Expert law enforcement officers are trained to recognize common features among different crime scenes to develop a profile, based on the evidence presented at the scenes by the

perpetrator, to help police know who they possibly could be looking for (Kraemer et al., 2004).

The FBI formed the National Center for the Analysis of Violent Crime (NCAVC) that has a Profiling and Consultation Program that provides opinions and information from experienced profiling investigators (Baker, 2001). A title used more currently than profiling is criminal investigative analysis (CIA), which is a comprehensive team approach (multidisciplinary) that assesses the facts of a criminal act or series of acts from a forensic, scientific, and behavioral outlook. Unlike “profiling”, the goal of CIA is to use behavioral science principles to narrow an investigative focus, being more efficient in use of investigative resources (Kraemer et al., 2004). Profiling and CIA is not an exact science because one cannot possibly predict human behavior to an exact truth, however, past behavior can be a strong indicator of future behaviors. To catch a serial killer, it is vital to have a criminal profiler taking part in an investigation (Baker, 2001).

#### 2.4.1 The Validity of Profiling

There have been numerous concerns over the validity of profiling, calling for more empirical research to be done over the controversial subject. Researchers have even criticized profilers on their shortcomings of findings in early research and procedures (Beasley, 2004). Concerns have risen not only in the United States but also in the United Kingdom concerning individuals who consider themselves experts in offender profiling. There is a lack of ethical guidelines for profilers (Alison, West, & Goodwill, 2004), and reliability and validity of profiling has not yet been established to date (Kraemer et al., 2004). Psychological profilers have been widely criticized from

different sources; however, a study by Dowden revealed that they have been one of the main active contributors to academic research in serial and mass murder. Psychiatrists and psychologists who work in profiling only on a part time basis do not adequately build expertise and knowledge in this area and lack experience (Dowden, 2005). Bartol (1996) found that 70 percent of police psychologists had “serious” questions about the validity of profiling.

Profilers infer things at the crime scene. It is not probable that any individual would have so much experience in cases of multiple homicides that would allow them to offer expert advice in profiling a perpetrator (Alison, Bennell, Mokros, & Ormerod, 2002). Investigative experience does not necessarily mean someone has an ability to profile serial murderers (Beasley, 2004). Profilers have a very low success rate of actually leading the investigation straight to the killer (Fox & Levin, 2005). From the law enforcement perspective, evidence left at the crime scene is far more important than the speculation of the killer’s psychological evidence (Hickey, 2006).

Many misperceptions are conveyed by profiling because profiling is difficult, given the fact that human behavior is extremely difficult to predict. The analysis of serial killers should not be held in high expectations, due to it involving violent human behavior that not only varies dramatically, but is also a crime that is very rare. Beasley studied seven serial killers by interviewing each and found that generalizing information from an individual and putting them into a large category is difficult and by doing so, there is an increased possibility of losing valuable information when trying to fit a perpetrator in a category (Beasley, 2004).

There are many concerns about the scientific validity of profiling. Future research is needed to know whether psychologists can use typologies to accurately classify an offender (Torres et al., 2006). It is crucial for a profiler to not only be objective and have crime scene expertise, but also be a good psychologist or psychiatrist and be aware of diverse cultures (Palermo, 2002). Even when there is more empirical evidence for profiling dangerous offenders, it can only be judged for accuracy if the offender is identified, apprehended, and convicted (Beasley, 2004). Profiling is a tool for law enforcement, but there is a virtual absence of studies conducted over law enforcement officers' perception of profiling and its usefulness.

### 2.5 Prevalence and Comparative of Serial and Mass Murders

There are not any official statistics that are kept in the United States, and there is not any known empirical facts in international data either (Brantley & Kosky, Jr., 2005). Holmes and De Burger (1988) estimated that anywhere from 3,500 to 5,000 victims a year were taken by serial killers in the United States. Another source, according to Holmes, Hickey, and Holmes (1991), estimated that 5,000 victims fall prey annually to serial killers. Fox (1990) disagreed with the two researchers' figures and attributed approximately only one tenth of that number of victims to serial killers. However, Swaneagle (2004) proposes that 6,000 serial murders occur annually in the United States alone, leading the world in serial killings. The same researcher also believes this abnormality is spreading across the world. O'Reilly-Fleming (1996) attains that at any one time in the United States there might be up to ten serial killers at work, a much smaller estimate than other researchers. According to Walsh (2005), sexual serial murder accounts for approximately two to three percent of all homicides. Since the



1970's, Godwin & Canter (1997) proclaim that there has been an increase in serial killings. Since 1971, there have been several hundred reported cases of serial murder. Out of these, at least 49 involved ten or more victims (Jenkins, 1989). Hickey has identified only 169 males and 34 females in the history of the United States as being serial killers (O'Reilly-Fleming, 1996).

It is not feasible to make reliable and valid statements on the specific number of times serial killing actually takes place. To date, there are only a few official statistics that address serial killing (Harbort & Makros, 2001). At any specific time, Jenkins (1991) documents that two to three percent of murders in England and Wales are attributed to serial killing. The inaccurate calculations by researchers such as Holmes and DeBurger only increase inaccurate perceptions by the media (O'Reilly-Fleming, 1996).

Mass murder is taking place with larger frequency (Hickey, 2006). Since the mid 1960's, there has been a rise in mass murder occurrences (Duwe, 2005). Mass murders were researched from 1976 to 1989, and data revealed that approximately two incidences of mass murder had occurred each month in the United States, making mass murder not as rare as everyone anticipates (O'Reilly-Fleming, 1996). Data reveals in the United States that homicides with more than one victim have increased by 1.5 percent from 1976 to 1996 (Lester, Stack, Schmidtke, Schaller, & Muller, 2005). There are approximately four to five high profile cases in a year (Duwe, 2005). Nearly 40 percent of mass murders happen against family (O'Reilly-Fleming, 1996). From 1900 to 1965 there were 21 public shootings in the United States; however from 1966 through 1999 there were 95 (Duwe, 2005). Adolescent mass murderers have been on

the increase according to Meloy et al. (2001). In 1997, cause of death was least likely to be in school; however, the appearance of mass murder in adolescents has brought about books and articles of the subject that is helpful to parents and professionals (Meloy et al., 2004).

Evans and Malesu (2001) did an eighteen year review (1978-1995) of all homicide cases that were obtained by the Statistics Division of the Barbados Police Force and found that the most common motives were classified as being psychotic in nature. There were thirteen known cases of multiple homicides in the study. The study was the first of its kind to publish homicide studies in Barbados and other Caribbean nations.

In most European countries serial and mass murder was rare, with the exception of Germany. In Britain and the Commonwealth countries, these types of slayings were extremely rare. In Britain, there are no known cases between 1900 and 1940 where someone took the lives of four or more victims (Jenkins, 1989).

Harbort and Mokros (2001) studied sixty-one serial murderers in the Federal Republic of Germany from 1945 to 1995 and found that serial murderers in Germany have a higher likelihood of having a personality disorder, cerebral anomalies, offense premeditation, and more likely to have killed strangers. Fifty-four were men, and seven were women. There has been an increase in serial murderers since 1965. A study conducted by Lester et al. (2005) looked at 143 incidents of rampage homicide, noting that the number of victims killed increased when the perpetrator committed suicide and when it took place outside of America or Europe.

Records detail that Canada has approximately 2.4 mass murders per year, compared to an astounding 26 in the United States (Carcach et al., 2002). Cantor, Mullen and Alpers (2000) studied seven cases from Australia, New Zealand, and Britain of mass murder that included civilians. They found that the seven men were socially isolated, self absorbed, resentful, obsessive, and narcissistic. Weapon fascination was also a commonality, and four of the subjects had been influenced by prior massacres. Since the first of July in 1989, Australia has had thirteen episodes of mass murder that have claimed ninety-four people's lives (Carcach et al., 2002).

Hempel, Levine, Meloy, and Westermeyer (2000) compared mass murderers between Asian and Occidental cultures and found that social isolation, loss, depression, anger, pathological narcissism, and paranoia often to a psychotic degree were among contributing factors of the mass murder. The researchers determined these individuals were similar to the amok typology in the United States. German print media over the last five years has reported about 212 serial killers that have murdered more than 2,400 victims worldwide. Serial murder has largely increased in the United States, as well as in Eastern Europe in the last decade (Harbort & Makros, 2001).

Criminology and criminal justice students, as well as law enforcement officers, need to be knowledgeable about the prevalence of serial and mass murder in order to advance knowledge in this field. Serial and mass murder does not just happen in, nor affect, only the United States. More studies need to be conducted to compare these groups knowledge on the subject.

## 2.6 Race/Gender/Age of Serial and Mass Murderers

The “D.C. Sniper” story was heard across America as it unfolded. People were scared to leave their homes. However, probably the most shocking news about it all was that in 2002 it was unveiled that the sniper was not only two snipers, but they were two black male serial killers (Walsh, 2005). Race continues to be among the most important predictors of homicide in the United States, and it has received attention in the media and by social scientists. However, the predicting race for homicides is black (Phillips, 2002), which is false when the subject is serial and mass murder. According to Walsh, it is a mystery to criminology how one group (African Americans) that commits a highly disproportionate number of homicides, has gained such a reputation for having such low numbers of serial and mass murderers. According to Fox and Levin (2005), African Americans represent 14.6% percent of serial killers since 1900.

Solo serial killers represent 80.8 percent of serial murderers since 1900 (Fox & Levin, 2006). Serial and mass murder is predominantly carried out by white males (Swaneagle, 2004). Jenkins (1993) found that only fourteen known serial killers that operated between 1971 and 1990 were African American. Then in a later study conducted by the same researcher, results showed a significant number of recorded serial killers were African American, increasingly above public perception (Jenkins, 1998). The widespread belief that only “whites” carry out such heinous crimes as serial killers is false. Walsh (2005) found that approximately 21.8 percent of serial killers across a 59 year period in the United States were African American. Prior to World War II, African Americans, such as Clarence Hill, Jarvic Catoe, and Jake Bird, were among the serial killers who had taken the most victims, but scant research has been

conducted on African Americans compared to their white counterparts. Jenkins' (1989) research suggests that only one-fifth or less of all known serial killers is African American. In the twentieth century, African Americans have made up approximately 13 to 16 percent of serial killers according to Walsh (2005).

African American serial killer estimates are anywhere from 13 to 20%, and Hispanic or Asian serial killers are rarely reported (Arndt et al., 2004). The overrepresentation of African American serial killers is rarely stated or brought into the open by criminological literature or by researchers that work in this area of study (Walsh, 2005). A study carried out by Hickey (1997) studied 337 serial killers since 1825 and found that twenty-two percent of killers were African American, and a study by Levin and Fox (1985) included mass and spree murderers and said that African Americans constituted twenty percent. Among multiple murderers, African Americans are over represented by about three times that of their proportion of the general population (Walsh, 2005).

Mass murderers are most likely to be male and white (Duwe, 2004) and in their thirties (Ramsland, 2005). Blacks do represent a small portion of mass killers and are over represented compared to their share of the overall population (Duwe, 2004). Fox and Levin (1998) found that approximately 63 percent of mass murderers are white and in 2005, the same researchers increased that total to 81.5 percent. Petee, Padgett, and York (1997) conducted a study of 106 mass murders between 1965 and 1995 and found that 50.8 percent of the total were white. Thus, minorities were over represented relative to their portion of the general population. Minorities were not broken down into categories of race.

Despite claims by different researchers that there are not any female serial killers, other researchers have found in the last fifty years there have been a large number of female serial killers. There are an increasing number of females who commit multiple murders (Holmes, Hickey, & Holmes, 1991). Holmes and De Burger's (1988) study of serial killers only included three females out of forty-seven serial killers. Fox and Levin (2005) attain that females represent a little over fourteen percent of serial killers since 1900. Over 53 percent of those females committed against family. Limited research has been conducted over women who commit murder (Haynie & Armstrong, 2006), much less multiple murder. Although there has been a recent spike in research on women committing serial murder, there has not been any dealing with multiple murders in a single episode. Neglect is largely due to the minute number of cases of multiple murdering women (Messing & Heeren, 2004). Most of the studies conducted in mass and serial murder are of males, due largely to the fact that women do not represent much of these populations, and female representation in murder has not varied much over the past three decades (Mann, 1990).

According to Haynie and Armstrong (2006), no research has broken apart rates of killing by gender and race. Serial murder literature rarely discusses age, but when researched the range falls from the early to late twenties to the mid thirties. The mean age of the killer in the first murder is 27.5 (Arndt et al., 2004).

Compared to ordinary homicidal offenders, mass murderers tend to be older, but in the last few decades they have become younger and more suicidal (Duwe, 2004). Meloy et al. (2004) found in the study conducted of thirty adult and thirty-four

adolescent mass murderers that the average age of adolescents was seventeen compared to the age of thirty-eight of the adults.

### 2.7 Limitations of Studies and Research

The FBI agents who came up with the organized/disorganized typologies of serial killers did not select subjects randomly; instead they took an opportunity sample of 36 serial killer offenders that would agree to talk to them. The interviews were ad hoc, depending on each subject; therefore different questions were most likely asked of different individuals. They divided them into categories based on each subject's behaviors and characteristics. There has not been a subsequent study to check the study's reliability or validity (Canter et al., 2004).

Placing behaviors into specific categories of identified behaviors can be problematic, due to behaviors not being able to necessarily fall into any tidy theory (Egger, 2002). The lacking (Seltzer, 1998) twofold theory of organized/disorganized typology could have its roots in a disease or syndrome type approach to classification, because it assigns all individuals to a categorical framework. Human beings rarely fall into distinct types of categories, so it is virtually impossible to find empirical support for the theory (Canter, et al., 2004).

One could argue that serial killers are still not understood, yet create vast interest (O'Reilly-Fleming, 1996). There are many limitations to academic research in this field. Access for academic purposes to serial killers is very limited by the U.S. penal system, and when academics are granted interviews with the assailant, interview data usually becomes self serving or cries of innocence by the assailants. Also due to legal

appeals and multiple trials, lawyers place constraints on who the defendant can talk to and what can be said (O'Reilly-Fleming, 1996).

There have been several studies published recently on serial offending, but most of the existing research is based on several secondary sources (Pino, 2005).

Additionally, few quantitative studies exist that study serial killers, and most researchers get their data through interviews with the serial killer or through newspaper articles. Interviews are quite questionable because of sample bias and of unreliability of the serial killers' accounts. These important limitations question the validity of sources and literature of serial murder (Arndt et al., 2004).

Walsh's (2005) study of 413 serial killers in the United States between 1945 to mid 2004 contained limitations, such as not having a comprehensive list of serial killers to come to a precise answer about racial proportionality. There is not a comprehensive list of major serial killers, much less an accurate list of all serial killers. Killers either claim they have killed more or less victims than what they are charged, making it impossible to know exact victim counts (Jenkins, 1989). Specific details about how information is collected and reliability and validity studies are sorely lacking in published studies in this area of study (Skrapec, 2001).

Research on mass murder is quite limited in scope (Meloy et al., 2004). Lester et al. (2005) research study on mass murderers has several limitations. The researchers lacked detailed information on many of the killers in their study, and they had to rely primarily on newspaper articles and non academic websites. Therefore, the study had questionable reliability and validity. In Duwe's (2004) study on mass murder, there are critical limitations that need to be discussed, such as Duwe relied heavily on newspaper



clippings from the New York Times to get his information on mass killers during 1900-1975. The validity and reliability of information retrieved from this source is extremely questionable, because information is issued by the hands of the media, not police, and the Times most likely did not include in its readings killings that took place in other parts of the U.S. and world. Duwe also states in his paper that mass killers tend to be older, but later says they have become more young in the last several decades.

Dowden (2005) asserts that there has yet to be any systematic way of how research is being conducted in serial and mass murder. There is no one to precisely measure the actual prevalence of multiple murders (Holmes, Hickey, & Holmes, 1991). According to Dowden, on-line degrees are in profiling and classes in university settings are increasing, making it rather easy to obtain a degree in profiling.

Most of the studies in this area infer conclusions based on observable data compared to real empirical findings, with additional concern for the limited number of researchers that have multiple publishes in multiple murders, making it a challenge to engage in ongoing discussions of the most difficult and challenging concepts at the core of serial and mass murder. Only 14% of research conducted on serial and mass murder has been from a multidisciplinary perspective. The lack of comparison groups is an extremely alarming weakness of multiple murder that questions the reliability and validity of findings of most research that has been carried out in this field of study, and the lack of methodological quality and tact of research in this field of serial and mass murder has allowed unsubstantiated claims to be sold as facts (Dowden, 2005).

Incidences of mass murder are difficult to gather due to limitations of studies and researchers having to use media sources as a tool (Holmes & Holmes, 2001). It is

not yet known what particular behaviors will predict murder or mass murder.

Criminologists and forensic psychologists have theories about likely factors that are apt to precipitate violence of the mass murderer (Ramsland, 2005).

### 2.8 Perceptions of Serial and Mass Murderers

The areas discussed above pertaining to serial and mass murder have been arguably well researched. However, the author contends that it is evident that more studies need to be conducted over the perception and knowledge of serial and mass murder among law enforcement and criminology and criminal justice students.

The emotional impact of multiple homicide can be grave, and this has been true in the last two decades (Jenkins, 1991). Due to documentaries and entertainment programs, serial and mass murder has been embossed on the very basics of U.S. society (O'Reilly-Fleming, 1996). The media has released reports that perceive serial killers as fanatics who murder for pleasure. In the mid 1980's the media began shifting from identifying serial killers as a small group of disturbed individuals to recognizing them as a social phenomenon that required society's attention. Police interests, combined with society's fears, enhanced perceptions of serial murder (Jenkins, 1991). Once a serial killer gets attention from the media, the public watches every detail provided about the killer (Shon & Milovanovic, 2006).

According to O'Reilly Fleming (1996), significant cases in history have educated the public's perception of serial killers. People perceive serial killers to be a threat to women and children. Increased awareness of possible links to unsolved murders promote finding and conviction; therefore, in turn increased the society's fear (Jenkins, 1991).

Herkov & Biernat (1997) mailed questionnaires to a community exposed to serial murder and received one hundred eighty-four finished questionnaires. Respondents indicated that the news media is the primary source of information regarding serial killers, but police press conferences over the issue were viewed more accurate.

Since the 1980's the subject of serial murder has received considerable attention from the public. Reasons for this could be explained in numerous ways: it provided a political or ideological weapon; feminists trying to draw attention to sexual violence; and possibly for the needs and attitudes of the police of Britain; because for them the serial murder dilemma was familiarly associated with existing trends in interjurisdictional collaboration and intelligence collecting (Jenkins, 1991).

There is a heightening concern among law enforcement over the growing incidences of new cases of serial killing (Holmes, Hickey, & Holmes, 1991). With that being said, there have been no attempts to analyze serial murder into historical periods, catalog all cases, or to understand social reactions to this phenomenon (Jenkins, 1989).

Duwe (2005) contends that the mass murdering of Richard Speck and Charles Whitman changed the public's perceptions during the middle of the 1960's. Society began to question their safety in their own homes and in public. Before those two cases, there were few cases that were as nationally publicized.

Due to the publicity that the media gives to multiple homicide, American society has perceived perpetrators to be ruthless monsters that could live next door (Hickey, 2006). Duwe (2005) analyzed newspaper, network television news, and weekly news

of 495 mass killings in the United States between 1976 and 1996. The study found that the news media has a clear influence on the societal construction of mass murder.

An overemphasis is placed on atypical mass murders by the media, and this has a significant affect on the social construction of mass murder. This causes questionable perceptions by society about typical mass murder. The overemphasis of atypical mass murder shapes the public's perception of the predicament; therefore, molding the policies created to control it (Duwe, 2005). Leyton (2005) speculates that society perceives serial and mass murder like it once did demons and evil spirits. Duwe (2005) attains the news media has made a tremendous impact on society's and academics' perceptions of mass murder.

The author contends, as it is evident through the literature review, that there has been limited research conducted studying the perceptions of serial and mass murder. More specifically, the perceptions of law enforcement and criminal justice students, which are the very people that come into contact with cases of serial and mass murder and who need to be knowledgeable about the subject. Knowledge into the subject has brought much debate. Validity of studies and new updated information into the area of serial and mass murder is questionable. This study attempts to contribute to the literature regarding the knowledge and perception of law enforcement officers and criminology and criminal justice students of serial and mass murder.

As suggested through the review of the existing studies on the subject of serial and mass murder, there is a current gap of research in the literature addressing the differences of perception and knowledge of serial and mass murder among law enforcement officers and criminology and criminal justice students. Although few

studies have addressed perception and knowledge of serial and mass murderers among individuals who are not experts on the topic, none have done so by using a sample of criminology and criminal justice students and law enforcement officers in Texas. This study will attempt to address the possible differences in perception and knowledge of serial and mass murder among law enforcement officers and students of criminology and criminal justice. In Chapter 3, the study will address the existing gap in the literature as it pertains to the knowledge and perception on serial and mass murder by students and law enforcement.

## CHAPTER 3

### METHODOLOGY

One could reasonably argue the problem of serial and mass murder has been recognized throughout the world. Yet, research comparing the perceptions and knowledge of serial and mass murder among law enforcement officers and college students has been limited. Thus, the purpose of this study is to address this need in the academic field by examining law enforcement officers' and college students' perception and knowledge of serial and mass murder. The topics in this chapter will be discussed relevant to the manner in which the datum for this study was collected, analyzed, and evaluated. Specifically, the survey instrument in this study was created by the author to measure the perception and knowledge of law enforcement and college students using the literature review as a construct. The survey instrument was approved by the University of Texas at Arlington's Institutional Review Board (IRB) in the Office of Research Integrity and Compliance.

This study was conducted to discover possible differences in the perception and knowledge of serial and mass murderers between Arlington Police Department law enforcement and criminology and criminal justice students at the University of Texas at Arlington (UTA). Due to limited previous research into this topic, this study is exploratory. A survey instrument implementation is a proper method to use in this particular study because it can be self-administered, and participants can respond to

questions without feeling pressured. The criteria for the participants of the sample and the sample size, the survey, the implementation of the survey, and the analysis of the survey questionnaire will be reviewed.

### 3.1 Sample and Sample Size

A quantitative cross-sectional, empirical approach will be used to measure law enforcement officers' and college students' knowledge and perception of serial and mass murder. Participants of the survey were from the Arlington Police Department and the University of Texas at Arlington. All sworn police officers of Arlington Police Department were eligible to participate in the study. Every criminology and criminal justice class at the University of Texas at Arlington was eligible to participate in the study as well. For this particular study, there were 71 police officers and 77 criminology and criminal justice students that participated. The total number of participants in this study was 148 (N=148), exceeding the requirements needed to achieve statistically significant results.

The Criminology and Criminal Justice Department at the University of Texas at Arlington has fifty-seven enrolled graduate students and 475 undergraduate students enrolled for the spring 2007 semester. Six graduate classes in Criminology and Criminal Justice at the University of Texas at Arlington were given the survey instrument. The only graduate classes excluded from the study were conference courses and thesis classes. Participants were issued the survey instrument in class and were allotted the appropriate amount of time to finish the survey by professors. Two undergraduate classes were drawn at random to participate and complete the survey instrument. All participants were told to complete the survey only once, and

participants did not participate if they had already filled out the same survey in a previous class.

A non probability convenience sample for this study was utilized at the Arlington Police Department. The subject pool consisted of commissioned law enforcement officers employed with the city of Arlington, Texas, from February through April of 2007. Officers from all ranks and assignments were eligible to complete the survey; however, the surveys were administered in daily shift change briefings. Therefore, patrol officers were the primary participants who completed the survey.

The sampling size for this study was calculated using Cohen's Size Categories. This allows the researcher to reasonably estimate the sample size in which the study needs to be conducted. Participation in the study was voluntary, and all participants were given the opportunity to discontinue the survey instrument at any time during the process if they chose. As mentioned above, 71 law enforcement surveys and 77 criminology and criminal justice surveys were returned fully completed to the researcher, bringing the total amount of fully completed surveys at 148 (N=148).

### 3.2 Survey Instrument

A thirty-nine question self-administered survey instrument was created by the researcher to collect datum of officers' and students' perception and knowledge of serial and mass murder, as well as demographical data. The survey instrument was derived from the academic information in Chapter 2. The 5 point Likert scale was used on the first thirty-four questions of the survey. The survey participants were asked to select a response on a scale from "1" to "5" with "1" used to "Agree Strongly" and "5"



expressing the strongest level of disagreement, “Disagree Strongly”. The scale moved from a positive to a negative response with the choices “2” through “4” having assigned values of Agree, Neutral, and Disagree, respectively. Questions measuring knowledge and perception were evenly distributed throughout the survey instrument. The last five questions on the survey instrument pertained to demographics. Demographic data was collected in regards to gender, race, age, education, and law enforcement training. Every demographic question provided categorical or ordinal choices for each answer.

The survey instrument and appropriate forms were submitted to IRB for evaluation and authorization. A letter of approval from the Arlington Police Department was obtained to comply with IRB guidelines, as well as letters of approval from professors in the Criminology and Criminal Justice Department at the University of Texas at Arlington. The researcher received approval from the IRB and Office of Research and Compliance to execute this study. A copy of the survey instrument is located in Appendix A.

### 3.3 Survey Implementation

The researcher obtained the permission in fall 2006, of the acting Chief of Police of the Arlington Police Department and professors of the Criminology and Criminal Justice Department at the University of Texas at Arlington to implement the survey to commissioned police officers and CRCJ students. IRB sent the researcher a letter of approval for this study and survey instrument to be implemented starting in January of 2007. Surveys were distributed to all three districts that comprise the Arlington Police Department: North, South, and West during daily briefings. Briefing times attended by the researcher included six and seven o’clock morning briefings, as well as fourteen,

fifteen, twenty-two, and twenty-three hundred hours briefings. The researcher implemented the survey at the beginning or end of the briefings that were attended. Surveys were distributed to all graduate classes, excluding conference and thesis courses, and two undergraduate classes that comprise the Criminology and Criminal Justice Department. The researcher distributed surveys to six out of fifteen graduate classes and two undergraduate criminology and criminal justice classes out of a possible thirty-seven. A summary of the courses selected is included in Table 1.

TABLE 1. SPRING 2007 COURSES IN WHICH SURVEYS WERE DISTRIBUTED

Course Title	Level
CRCJ 5309 Research and Statistics in Criminal Justice	Graduate
CRCJ 5319 Issues in Policing	Graduate
CRCJ 5327 Judicial and Constitutional Processes	Graduate
CRCJ 5332 Correctional Theory and Practice	Graduate
CRCJ 5350 Theoretical Criminology	Graduate
CRCJ 5352 Women, Crime and Criminal Justice	Graduate
CRCJ 3390.001 Victimology	Undergraduate
CRCJ 4301.001 The American Judicial System	Undergraduate

The survey instrument contained a disclaimer that participation in the survey was entirely voluntary, and the participants could stop at any time while filling out the survey and, doing so, would not result in a penalty of any kind. It was also stated that participants' personal identities and responses were to be kept confidential. Upon completion of each survey, the researcher placed all surveys together in an envelope to maintain the anonymity of the participant. The survey was available for officers and students to complete during a time period extending from February through April of 2007.

### 3.4 Analysis Procedure

The researcher utilized the Statistical Package for the Social Sciences (SPSS) 15.0 to code and analyze the data obtained from the completed survey instruments. The data compiled from the responses of law enforcement officers and college students will be compared and contrasted. The survey items that were measured on a Likert scale were coded to reflect their respective values. Demographical questions were also coded to reflect their respective categorical and nominal values. The survey participants' responses were recorded in SPSS, and frequencies were generated with regards to the number of responses from each variable.

The main purpose for using statistical manipulation was to find possible differences in the knowledge and perception of serial and mass murder between law enforcement officers and criminology and criminal justice students. A one sample t-test was most appropriate to compare the means and to determine if statistical significance existed between law enforcement officers and CRCJ students. A t-test is a variance analysis that compares means of two groups (Sweet & Grace-Martin, 2003). In Chapter

4, the author will display findings of the survey instrument in tables and charts that are relevant to the study.

## CHAPTER 4

### FINDINGS

The findings in this chapter will detail the results of the surveys as it pertains to law enforcement officers' and students' perception and knowledge of serial and mass murder. The data collected for this study were analyzed using a t test. Sweet & Grace-Martin (2003) explain that a t test is used as a method of comparing two different groups' means. For this study, the t test was appropriate to compare law enforcement officers' and students' answers on the survey. By using this method, it is expected that there will be differences found in the survey responses between Arlington Police Department law enforcement officers and criminology and criminal justices students at the University of Texas at Arlington.

The findings in this study will be described and presented in three sections. The first section will present the demographic findings of the respondents surveyed in terms of frequencies and percentages. The second and third sessions will describe the findings of the t test when perception and knowledge questions from the survey were ran in SPSS.

#### 4.1 Demographics

The survey contained five questions pertaining to demographics. The majority of respondents in this survey were male (55.4%), identified themselves as Caucasian (64.2%), and in the 21-25 age bracket (41.9%). The greater part of respondents

identified a bachelor’s degree (37.8%) as their highest form of education, and 52% of respondents identified themselves as students. Eighty-two males and sixty-six females participated in the study. Ninety-five Caucasians, twenty African Americans, nineteen Hispanics, and four Asians participated in the survey. There were ten people who listed “other” in this category. Although 21-25 was the age range of the majority of respondents, a little more than twenty percent, or 30, respondents were forty-one years of age or older. Only four people, or 2.7% of respondents, identified themselves as being 17-20 years of age. Thirty-five of the respondents, which constituted 23.6% of people surveyed, had taken some graduate coursework by the time the survey was implemented. There were seventy-one officers and seventy-seven students who completed the survey. For a complete summary of demographics refer to Table 2.

TABLE 2. DEMOGRAPHICS

Variable		Frequency	Number of Respondents in Percentages
Gender	Male	82	55
	Female	66	45
What is your race?	Caucasian	95	64
	African American	20	14
	Hispanic	19	13
	Asian	04	03
	Other	10	07
You are between the ages of:	17-20 years	04	03
	21-25 years	62	42
	26-30 years	23	16
	31-35 years	17	12
	36-40 years	12	08
	41+ years	30	20

TABLE 2. (CONTINUED)

Variable		Frequency	Number of Respondents in Percentages
Highest form of education:	High school degree	03	02
	Some college	26	18
	Associates degree	19	13
	Bachelor's degree	56	38
	Some graduate work	35	24
	Master's degree	07	05
	Doctorate degree	02	01
	Other	00	00
Do you have law enforcement training?	Yes	71	48
	No	77	52

4.2 Law Enforcement Training and CRCJ Student' Perception of Serial and Mass Murder

Items within this section were presented within the survey in order to measure the perception of law enforcement officers compared to CRCJ students' perceptions of serial and mass murder. There were twenty perception questions identified on the survey. There were three perception questions that reached statistical significance when the t test was run, and those questions will be identified later in this section. The first perception question on the survey was "most serial killers are intelligent". The mean for law enforcement was 2.00 compared to a mean of 2.21 for students' responses to the question, making the p-value near statistical significance at .055. "Most serial killers are loners" was the second perception question, and law enforcement officers and students were very similar with means of 2.63 and 2.64, respectively. Since the means were so close, the p-value was high at .960. Both groups showed little difference in

regards to “most serial killers murder people they know” with a law enforcement mean of 3.69 compared to the students’ mean of 3.57 ( $p=.350$ ).

In regards to the use of typology systems as a tool to help identify serial killers, a mean of 2.39 was given by law enforcement compared to 2.27 for students. Even though there was a slight difference in the mean of each group, the p-value was .196. Law enforcement was more likely to agree that serial killers go through a fantasy phase than students (law enforcement mean=2.14 and students mean=2.23), but the responses did not reach statistically significant values and was  $p=.379$ . Law enforcement officers were also more likely to agree that “law enforcement can learn traits and characteristics about a serial killer from studying the crime scene” (law enforcement =1.75 compared to students at 1.87), but the finding did not reach significance ( $p=.192$ ). When law enforcement officers and students responded to “serial killers have a mental illness of some kind”, both somewhat agree with the statement (law enforcement mean=2.51 and students 2.42). The p-value for this question was .446.

Students were more likely to agree with the statement “serial killers are more likely to kill for reasons of sexuality” with a mean of 2.91; whereas, law enforcement was more neutral on the same statement with a mean of 3.11. When the t test was run, the p-value was .091. Responses to the statement “serial killers will stop killing if they are not caught” did not reach statistical significance ( $p=.524$ ) with law enforcement’s mean response at 4.03 and students at 3.95. Responses were almost identical between the two groups when presented with the statement about profilers having an accurate description of the perpetrator of serial and mass murder (law enforcement mean of 2.65 and students at 2.66), making the comparison not significant at  $p=.906$ .



The first perception statement to reach statistical significance at .039 was “almost all of the time serial killers leave "signatures" at the crime scene”. Law enforcements mean response to the question was 2.15 compared to a mean of 2.38 for the students. Both groups had a neutral response to the statement regarding “mass murderers are intelligent”, with a mean of 3.18 of law enforcement and 3.03 of students. When a t test was run on this question the p-value was .175. “Most mass murderers are loners” was the second perception statement on the survey to reach statistical significance at  $p=.032$ . The means of both groups regarding this question were quite far apart (mean of law enforcement was 2.85 and students mean of 2.57). Both law enforcement and students had relatively the same mean of 3.31 and 3.34 with regards to mass murderers only take the lives of people they know. Due to the means being so close the p-value was  $p=.854$ .

The p-value for the statement “typology systems work to help identify characteristics of mass murderers” was  $p=.000$ . The average law enforcement officer had a neutral response (mean of 3.15), whereas, students somewhat agreed with the statement (mean of 2.70). Both law enforcement officers and students somewhat agreed with the statement “mass murderers go through a fantasy phase of carrying out their crime before they follow through with the act” (law enforcement mean was 2.89, and students was 2.96). Due to the means of both groups being so close the p-value was .586. Regarding whether law enforcement can learn from the crime scene, students were more likely to agree (mean of 2.69) with the statement than law enforcement officers (mean of 2.77), but the p-value was .522. Both groups agreed somewhat with mass murderers having a mental illness (law enforcement mean of 2.49 and student

mean of 2.31), but it did not reach a level of significance ( $p=.137$ ). Law enforcement officers and students were neutral concerning the statement “mass murderers kill for reasons of sexuality” with a mean of 3.86 and 3.99, respectively. The p-value was .239. The last perception question was “mass murderers kill for revenge”, and law enforcement was slightly more likely to agree with the statement than students. Law enforcement officer’s mean was 2.31, compared to students’ 2.38 mean, putting the p-value at .605. These findings are illustrated below in Table 3.

TABLE 3. RESPONDENTS’ PERCEPTIONS OF SERIAL AND MASS MURDER

<b>Variable</b>	<b>Law Enforcement Mean</b>	<b>Students’ Mean</b>	<b>P-Value</b>
Most serial killers are intelligent.	2.00	2.21	.055
Most serial killers are loners (avoid the company of other people).	2.63	2.64	.960
Most serial killers murder people they know.	3.69	3.57	.350
Typology (systematic classification or study of types) systems work to help identify characteristics of serial killers.	2.39	2.27	.196
Serial killers go through a fantasy phase (an imagined or conjured up sequence fulfilling a psychological need) of carrying out their crime before they follow through with the act.	2.14	2.23	.379

\* Statistically Significant at the .05 level

\*\* Statistically Significant at the .01 level

TABLE 3. (CONTINUED)

<b>Variable</b>	<b>Law Enforcement Mean</b>	<b>Students' Mean</b>	<b>P-Value</b>
Law enforcement can learn traits and characteristics about a serial killer from studying the crime scene.	1.75	1.87	.192
Serial killers have a mental illness of some kind.	2.51	2.42	.446
Serial killers murder for reasons related to sexuality.	3.11	2.91	.091
Serial killers will stop killing if they are not caught.	4.03	3.95	.524
The profiler's description of the perpetrator of serial and mass murder is usually accurate.	2.65	2.66	.906
Almost all of the time serial killers leave "signatures" (identifying characteristics) at the crime scene.	2.15	2.38	.039*
Most mass murderers are intelligent.	3.18	3.03	.175
Most mass murderers are loners (avoid the company of other people).	2.85	2.57	.032*
Most mass murderers kill people they know.	3.31	3.34	.854

\* Statistically Significant at the .05 level

\*\* Statistically Significant at the .01 level

TABLE 3. (CONTINUED)

<b>Variable</b>	<b>Law Enforcement Mean</b>	<b>Students' Means</b>	<b>P-Value</b>
Typology (systematic classification or study of types) systems work to help identify characteristics of mass murderers.	3.15	2.70	.000**
Mass murderers go through a fantasy (an imagined or conjured up sequence fulfilling a psychological need) phase of carrying out their crime before they follow through with the act.	2.89	2.96	.586
Law enforcement can learn traits and characteristics about a mass murderer from the crime scene.	2.77	2.69	.522
Mass murderers have a mental illness of some kind.	2.49	2.31	.137
Mass murderers kill for reasons of sexuality.	3.86	3.99	.239
Mass murderers kill for revenge.	2.31	2.38	.605

\* Statistically Significant at the .05 level

\*\* Statistically Significant at the .01 level

### 4.3 Law Enforcement Training and CRCJ Students' Knowledge of Serial and Mass Murder

Similar to the perception questions on the survey, the knowledge questions were presented in order to measure the depth of knowledge officers and students had about serial and mass murder. There were fourteen questions on the survey that pertained to knowledge. Five questions related to knowledge reached statistical significance. The first two survey questions over knowledge were statistically significant. The first was "I am knowledgeable on the subject of serial and mass murder" with a p-value of .000. The mean of law enforcement responses for the question was 2.63, compared to 2.21 for students. The second knowledge question to reach statistical significance was "mass murder and serial murder are words used to describe the same actions" at  $p=.013$ . The students' mean for the question was 4.52, compared to the mean of 4.18 for law enforcement.

Regarding whether serial killers commit suicide before surrendering to law enforcement, students were more apt to agree with the statement (mean=3.66) than law enforcement (3.89), but the findings were not significant at  $p=.103$ . Both groups agree serial killers are predominantly male. Law enforcements' mean was 1.87, and students had a mean of 1.71, positioning the p-value at .140.

Another question to reach a statistically significant response at  $p=.017$  was "serial killers increase the intensity of their crime with each individual they kill". The mean for law enforcement was 2.46, compared to a much lower mean of 2.18 for students. Both law enforcement and students disagreed with the statement that most serial and mass murderers are African American (law enforcement mean=4.59 and

student mean=4.56), and the p-value was .714. The two groups agree somewhat with the statement that female serial and mass murderers are increasing. The question did not reach statistical significance at .836 due to the means of both groups being very close (law enforcement mean of 2.96 and student mean of 2.94). Both groups were neutral about the validity of profiling serial and mass murderers (law enforcement=3.00 and students=3.06). The p-value for the question was .607. The responses offered by law enforcement and students to “serial and mass murder incidents mostly take place in the United States” appeared to be similar with means of 3.62 and 3.53, respectively. The p-value was .520. Also, responses for the statement “I am knowledgeable on the subject of mass murder” did not reach a statistically significant difference with a p-value of .095. Law enforcement’s mean was 2.77, compared to that of students at 2.57.

Responses to the statement “mass murderers are likely to commit suicide before surrendering to law enforcement” reached statistical significance at  $p=.048$ . Law enforcement’s mean was 2.13, whereas, students’ mean was 1.88. The statement on the survey pertaining to serial and mass murderers having criminal histories did not reach statistical significant ( $p=.178$ ), with the mean for law enforcement at 2.80, compared to students’ mean of 2.99. Statistical significance was reached regarding the question “serial killers and mass murderers are similar” at  $p=.030$ , with the mean of law enforcement being 3.61, compared to 3.34 of students. Further, the last knowledge question “mass murderers are predominantly of the male gender” received relatively similar responses by law enforcement and students (means of 1.94 and 1.91), and did not reach statistical significance having a .765 p-value. The table below (Table 4) represents the findings described in this session.

TABLE 4. RESPONDENTS' KNOWLEDGE OF SERIAL AND MASS MURDER

<b>Variable</b>	<b>Law Enforcement Mean</b>	<b>Students' Mean</b>	<b>P-Value</b>
I am knowledgeable on the subject of serial murder.	2.63	2.21	.000**
Mass murder and serial murder are words used to describe the same actions.	4.52	4.18	.013*
Serial killers are likely to commit suicide before surrendering to law enforcement.	3.89	3.66	.103
Serial killers are predominantly of the male gender.	1.87	1.71	.140
Serial killers increase the intensity of their crime with each individual they kill.	2.46	2.18	.017*
Serial and mass murderers are mostly African American.	4.59	4.56	.714
Female serial murderers and mass murderers are increasing.	2.96	2.94	.836
Profiling serial and mass murderers is scientifically (systematic or accurate in the manner of an exact science) validated.	3.00	3.06	.607
Serial and mass murder incidents mostly take place in the United States.	3.62	3.53	.520

\* Statistically Significant at the .05 level

\*\* Statistically Significant at the .01 level

TABLE 4. (CONTINUED)

<b>Variable</b>	<b>Law Enforcement Mean</b>	<b>Students' Mean</b>	<b>P-Value</b>
I am knowledgeable on the subject of mass murder.	2.77	2.57	.095
Mass murderers are likely to commit suicide before surrendering to law enforcement.	2.13	1.88	.048*
Serial and mass murderers have past criminal histories of other crimes also.	2.80	2.99	.178
Serial killers and mass murderers are similar.	3.61	3.34	.030*
Mass murderers are predominantly of the male gender.	1.94	1.91	.765

\* Statistically Significant at the .05 level

\*\* Statistically Significant at the .01 level

In Chapter 5, the author will have the discussion and conclusion section of the paper. Results from the survey will be explained and tied in with supporting literature, and suggestions for other avenues of research will be discussed.



## CHAPTER 5

### DISCUSSION

In this chapter, the author will discuss what the findings from chapter 4 mean and what they signify. Serial and mass murder is a very challenging and complex issue. The findings of this study serve as an interpretation of the differences of opinions between law enforcement and CRCJ students in relation to perception and knowledge regarding serial and mass murder. The primary goal of this study was to examine the possible relationship of perception and knowledge regarding serial and mass murder among law enforcement officers and CRCJ students. To attain that goal, knowledge and perception was measured through the implementation of a survey that was created by the researcher.

As illustrated in Chapter 2, a review of the literature explored the history, typology, characteristics, profiling, gender, age, and comparatives of serial and mass murder. In addition, perception and knowledge studies over serial and mass murder were addressed.

A survey was implemented in six graduate classes, as well as two undergraduate classes to the CRCJ students at the University of Texas at Arlington. The same survey was given out at numerous briefings held at the Arlington Police Department to law enforcement officers. Data was analyzed utilizing SPSS, analyzing descriptive statistics, and the utilization of t tests for comparison of the means among law

enforcement officers and CRCJ students. Both perception and knowledge questions appeared to differ between officers and CRCJ students. The majority of questions that were statistically significant were at the 0.05 level.

### 5.1 Contribution to the Body of Knowledge

It was anticipated that this research will make a significant contribution to the body of knowledge in the field of criminology/criminal justice. The literature on the subject suggests broad studies have been conducted over knowledge and perception on serial and mass murder; however, there were not any studies found that compared law enforcement's perception and knowledge to CRCJ students in the region of North Texas. By surveying this particular population, law enforcement officers and students, this study found differences in perception and knowledge between the two groups.

### 5.2 Perception

Law enforcement officers and students seemed to have similar perceptions on the subject of serial and mass murder. The two groups' differences of opinion proved to be statistically significant on three perception questions of the survey. Law enforcement officers were more likely to believe serial killers leave "signatures" at the crime scene. This could be due to officers having experience studying a crime scene compared to students. Students were more apt to agree that mass murderers are loners. Students were also more likely to agree that typology systems work to help identify mass murderers; whereas, law enforcement officers were more neutral about the statement. The findings tend to indicate law enforcement officers and criminology and criminal justice students tend to have similar views on serial and mass murder regardless of knowledge.

### 5.3 Knowledge

Students seemed to have the opinion that they were more knowledgeable about serial murderers than law enforcement officers answered. Law enforcement officers were more likely to have a strong opinion of their knowledge that serial and mass murders are not words used to describe the same acts. Students were more apt to agree that serial killers increase their intensity with each crime committed, and that mass murderers are likely to commit suicide before surrendering to law enforcement. These results could be due to the fact that students are taught more about serial and mass murder than law enforcement. Serial and mass murders are not subjects that patrol officers are likely to deal with on a regular basis, and that could be a basis for the differences in knowledge.

### 5.4 Education and Policy Implications

Schools need to educate students in the criminology and criminal justice fields about the subject of serial and mass murder. Researchers have asserted that both crimes have been increasing. On April 16, 2007, the United States experienced the worst mass murder in its history with the Virginia Tech massacre (MSNBC, 2007). Students and law enforcement need to be educated more about these heinous crimes, so they will be more knowledgeable about the subject area. Education can assist with prevention techniques.

Although the students in criminology and criminal justice seemed to be knowledgeable over the subject matter, there can always be more educational efforts to increase the knowledge of all students. Universities could offer an elective course over serial and mass murder. Students may be more knowledgeable than officers about serial

and mass murder, because students might be more apt to watch or listen to world news, while officers may be more engaged in local news.

There are a number of policy implications relevant. As mentioned above, Virginia Tech was the worst mass murder in the history of the United States. For weeks after the horrific incident, experts were interviewed, trying to rationalize what took place and to try to come up with a reason as to why it occurred. People started trying to point fingers and put the blame somewhere. The perpetrator of the mass murder was Cho Seung-Hui. After the murderous rampage, Cho's mental history was exposed. He had contact with the mental health field and had been called into campus police by at least one woman for stalking behavior. Cho was able to legally buy two guns (CNN, 2007). Cho slipped through the cracks of state policies and procedures, like other murderers do. Stricter mental health policies need to be implemented to ensure people get the best mental health treatment available to decrease the risk of crimes such as this from taking place. Gun laws can be re-evaluated by state and federal officials by possibly making it harder, or restricting people who have had contact with the mental health field from being able to easily obtain guns. Universities need to have stricter policies in place to deal with students or other individuals who exhibit behavior that is brought to the attention of professional staff by numerous individuals. Not all serial and mass murders have problems with mental health or exhibit behavior that is alarming to individuals around them; however, stricter policies could possibly deter or prevent individuals who do exhibit these behaviors from committing these crimes.

Given that serial and mass murders are only increasing, and the reasonable expectation that criminology and criminal justice students and law enforcement officers

will become policy makers at the local and national level, educators and professionals should be challenging students' and officers' perceptions about serial and mass murder by engaging students in meaningful dialogue to seek an understanding of why students and officers form certain perceptions about serial and mass murder.

### 5.5 Law Enforcement Training Implications

The author noticed that the survey revealed similar perceptions of serial and mass murder between officers and CRCJ students, but students seemed to be more knowledgeable about the subject. Officers are usually the first people on scene when responding to serial and mass murder crimes. This means they need to be very knowledgeable about the crimes. There needs to be more training for law enforcement, so they will be adequately prepared to deal with a serial or mass murder case when one is presented before them. The academy needs to provide training and education for all law enforcement officers, so they will be prepared. The more knowledge law enforcement has on serial and mass murder the easier it is to identify links in the crimes, and enables them to know the type of perpetrator they are dealing with.

When dealing with serial killers, law enforcement needs to be knowledgeable about the literature produced about the subjects to be able to find the perpetrator before the culprit continues their murdering agenda. When dealing with mass murderers, law enforcement officers have to work swiftly and quickly because they only have minutes to save numerous peoples' lives. If officers are not adequately prepared to deal with the extremely unstable perpetrators of mass murder, several lives will be lost in a matter of seconds.

### 5.6 Limitations of the Research

The author acknowledges limitations present in this current study. First, the sample group of law enforcement officers were based on convenience and not randomized. All graduate classes, except thesis and conference courses, were selected for the study, and the selection of the two undergraduate classes were randomized. The sample chosen was from a police department and university in the state of Texas. Another limitation to this current study is that of law enforcement training. The University of Arlington is a community university, so there are many students that are from other cities besides Arlington. If participants acknowledged that they had law enforcement training on the survey, they were automatically put in with the law enforcement group. Police officers from other cities attend UTA; therefore, not all law enforcement participants can be said to be employed by Arlington Police Department. The University of Texas at Arlington and the Arlington Police Department may not share the same perceptions and knowledge as the rest of the world; therefore, it may not be possible to generalize the results to the general population, or even to the rest of the university's student population. The author recognizes the exploratory nature of the study and acknowledges the limitations therein.

### 5.7 Suggestions for Future Research

Future research could examine policies at the state and federal level that deal with serial and mass murder, and how policies can be updated or created to deal with the increasing number of these perpetrators, and actions that can be taken to possible deter or prevent these atrocious incidences from taking place so frequently.

Students of criminology/criminal justice are the future researchers and policy makers of serial and mass murder. More research needs to be conducted over the knowledge and perception of police officers and students on serial and mass murder. Police officers are the very people who come into contact with these twisted people and their heinous crimes. More needs to be studied on how much they have been educated and trained to deal with this increasingly problematic population.

APPENDIX A  
SURVEY INSTRUMENT



## Survey

### **CRCJ Students and Arlington Police Department Law Enforcement Officers'**

#### **Knowledge and Perception of Serial and Mass Murder**

This study is being conducted through the University of Texas at Arlington Department of Criminology and Criminal Justice. It is aimed at measuring and comparing knowledge and perception of serial and mass murder among people predominantly in the North Texas region. This study is absolutely voluntary and will be kept completely anonymous. No one is required to participate and anyone holds the right to terminate this survey at any point before its completion. The goal of this survey is to determine what people's perception and knowledge is of serial and mass murder. It is hopeful that this information will be beneficial to researchers and professionals who are involved in this line of study. If you have any questions pertaining to your decision to participate in this survey or any other inquiries regarding your rights, please contact a representative of the Institutional Review Board for the Protection of Human Subjects at (817) 272-2105. If you have any questions pertaining to the design, implementation or utility of this survey, please contact Kendra Bowen at (817) 272-3318.

#### Consent

1. You understand that your participation in this research survey is completely voluntary.
2. You understand that you may stop participation in this survey at any time and doing so will not result in a penalty of any kind.
3. You understand that your personal identity will not be revealed and your responses will remain confidential.

Please indicate your level of agreement with each statement by circling the corresponding number.

The questions are divided into three sections: serial murder, mass murder, and demographics.

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## Section I. Serial Murder

### 1. I am knowledgeable on the subject of serial murder.

Agree Strongly                      Disagree Strongly  
1            2            3            4            5

### 2. Mass murder and serial murder are words used to describe the same action.

Agree Strongly                      Disagree Strongly  
1            2            3            4            5

### 3. Most serial killers are intelligent.

Agree Strongly                      Disagree Strongly  
1            2            3            4            5

### 4. Most serial killers are loners (avoid the company of other people).

Agree Strongly                      Disagree Strongly  
1            2            3            4            5

### 5. Most serial killers murder people they know.

Agree Strongly                      Disagree Strongly  
1            2            3            4            5

### 6. Typology (systematic classification or study of types) systems work to help identify characteristics of serial killers.

Agree Strongly                      Disagree Strongly  
1            2            3            4            5



**15. Serial and mass murderers are mostly African American.**

Agree Strongly  
1 2 3 4 Disagree Strongly  
5

**16. Female serial murderers and mass murderers are increasing.**

Agree Strongly  
1 2 3 4 Disagree Strongly  
5

**17. Profiling serial and mass murderers is scientifically (systematic or accurate in the manner of an exact science) validated.**

Agree Strongly  
1 2 3 4 Disagree Strongly  
5

**18. The profiler's description of the perpetrator of serial and mass murder is usually accurate.**

Agree Strongly  
1 2 3 4 Disagree Strongly  
5

**19. Serial and mass murder incidents mostly take place in the United States.**

Agree Strongly  
1 2 3 4 Disagree Strongly  
5

**20. Almost all of the time serial killers leave "signatures" (identifying characteristics) at the crime scene.**

Agree Strongly  
1 2 3 4 Disagree Strongly  
5

## **Section II. Mass Murder**

**21. I am knowledgeable on the subject of mass murder.**

Agree Strongly  
1 2 3 4 Disagree Strongly  
5

**22. Most mass murderers are intelligent.**

Agree Strongly  
1 2 3 4 Disagree Strongly  
5

**23. Most mass murderers are loners (avoid the company of other people).**

Agree Strongly                                  Disagree Strongly  
1          2          3          4          5

**24. Most mass murderers kill people they know.**

Agree Strongly                                  Disagree Strongly  
1          2          3          4          5

**25. Typology (systematic classification or study of types) systems work to help identify characteristics of mass murderers.**

Agree Strongly                                  Disagree Strongly  
1          2          3          4          5

**26. Mass murderers go through a fantasy (an imagined or conjured up sequence fulfilling a psychological need) phase of carrying out their crime before they follow through with the act.**

Agree Strongly                                  Disagree Strongly  
1          2          3          4          5

**27. Law enforcement can learn traits and characteristics about a mass murderer from the crime scene.**

Agree Strongly                                  Disagree Strongly  
1          2          3          4          5

**28. Mass murderers are likely to commit suicide before surrendering to law enforcement.**

Agree Strongly                                  Disagree Strongly  
1          2          3          4          5

**29. Mass murderers are predominantly of the male gender.**

Agree Strongly                                  Disagree Strongly  
1          2          3          4          5

**30. Mass murderers have a mental illness of some kind.**

Agree Strongly    Disagree Strongly  
1            2            3            4            5

**31. Mass murderers kill for reasons of sexuality.**

Agree Strongly    Disagree Strongly  
1            2            3            4            5

**32. Mass murderers kill for revenge.**

Agree Strongly    Disagree Strongly  
1            2            3            4            5

**33. Serial and mass murderers have past criminal histories of other crimes also.**

Agree Strongly    Disagree Strongly  
1            2            3            4            5

**34. Serial killers and mass murderers are similar.**

Agree Strongly    Disagree Strongly  
1            2            3            4            5

**Section III. Demographics**

**Please circle the number corresponding to the statement that best fits your answer.**

**35. Gender**

(1) Male   (2) Female

**36. What is your race?**

(1) Caucasian   (2) African American   (3) Hispanic   (4) Asian   (5) Other

**37. You are between the ages of:**

- (1) 17-20 years
- (2) 21-25 years
- (3) 26-30 years
- (4) 31-35 years
- (5) 36-40 years
- (6) 41+ years

**38. Highest form of education:**

- (1) High school degree
- (2) Some college
- (3) Associates degree
- (4) Bachelor's degree
- (5) Some graduate work
- (6) Masters degree
- (7) Doctorate degree
- (8) Other: \_\_\_\_\_

**39. Do you have law enforcement training?**

YES            NO

## REFERENCES

Alison, L., Bennell, C., Mokros, A., & Ormerod, D. (2002). The personality paradox in offender profiling: A theoretical review of the processes involved in deriving background characteristics from crime scene actions. *Psychology, Public Policy, and Law*, 8 (1), 115-135.

Alison, L., West, A., & Goodwill, A. (2004). The academic and the practitioner: Pragmatists' views of offender profiling. *Psychology, Public Policy, and Law*, 10 (1/2), 71-101.

Arndt, W., Hietpas, T., & Kim, J. (2004). Critical characteristics of male serial murderers. *American Journal of Criminal Justice: AJCJ*, 29 (1), 117.

Baker, T. (2001). Hunting serial killers: Understanding and apprehending america's most dangerous criminals. *Law & Order*, 49 (5), 43-48.

Bartol, C.R. (1996). Police psychology: Then, now, and beyond. *Criminal Justice and Behavior*, 23, 70-89.

Beasley, J., II. (2004). Serial murder in america: Case studies of seven offenders. *Behavioral Sciences and the Law*, 22, 395-414.

Bering, J. & Shackelford, T. (2004). The causal role of consciousness: A conceptual addendum to human evolutionary psychology. *Review of General Psychology*, 8 (4), 227-248.



Brantley, A. & Kosky, Jr., R. (2005). Serial murder in the Netherlands: a look at motivation, behavior, and characteristics. *FBI Bulletin*, 74(1), 26.

Canter, D., Alison, L., Alison, E., & Wentink, N. (2004). The organized/disorganized typology of serial murder: Myth or model? *Psychology, Public Policy, and Law*, 10 (3), 293-320.

Canter, D., & Wentink, N. (2004). An empirical test of holmes and holmes's serial murder typology. *Criminal Justice and Behavior*, 31 (4), 489- 515.

Cantor, C., Mullen, P., & Alpers, P. (2000). Mass homicide: The civil massacre. *Journal of the American Academy of Psychiatry and the Law*, 28, 55-63.

Carcach, C., Mouzos, J., & Grabosky, P. (2002). The mass murder as quasi-experiment: The impact of the 1996 port arthur massacre. *Homicide Studies*, 6 (2), 109-127.

CNN. (2007). Campus killers purchases apparently within gun laws. Retrieved June 24, 2007, from <http://www.cnn.com/2007/US/04/19/gun.laws/index.html>.

Day, L. & Vandiver, M. (2000). Criminology and genocide studies: Notes on what might have been and what still could be. *Crime, Law and Social Change*, 34 (1), 43-59.

Dietz, P.E. (1986). Mass, serial, and sensational homicides. *Bulletin of the New York Academy of Medicine*, 62, 477-491.

Dowden, C. (2005). Research on multiple murder; where are we in the state of the art? *Journal of Police and Criminal Psychology*, 20 (2), 8-19.

- Dutton, D.G. (1999). Limitation of social learning models in explaining intimate aggression. In X. B. Arriaga & S. Oskamp (Ed.), *Violence in intimate relationships*. Thousand Oaks, CA: Sage Publications.
- Duwe, G. (2004). The patterns and prevalence of mass murder in twentieth-century America. *Justice Quarterly*, 21 (4), 729-761.
- Duwe, G. (2005). A circle of distortion: The social construction of mass murder in the United States. *Western Criminology Review*, 6(1), 59-78.
- Egger, S. (2002). *The Killers Among Us: An Examination of Serial Murder and Its Investigation*. 2<sup>nd</sup> Ed. New Jersey: Prentice Hall.
- Evans, C. & Malesu, R. (2001). Homicide in Barbados: An 18-year review. *The Journal of Forensic Psychiatry*, 12 (1), 182-193.
- Ferguson, C., White, D., Cherry, S., Lorenz, M., & Bhimani, Z. (2003). Defining and classifying serial murder in the context of perpetrator motivation. *Journal of Criminal Justice*, 31, 287- 292.
- Fox, J.A. (1990). Review of the book, Holmes, R.M., & DeBurger J: Serial murder. *Contemporary Psychology*.
- Fox, J. & Levin, J. (1998). Multiple homicide: Patterns of serial and mass murder. *Crime and Justice*, 23, 407-455.
- Fox, J.A. & Levin, J. (2003). Mass murder: An analysis of extreme violence. *Journal of Applied Psychoanalytic Studies*, 5, 47-64.
- Fox, J.A. & Levin, J. (2005). *Extreme Killing: Understanding Serial and Mass Murder*. Thousand Oaks, CA: Sage Publications.

Fox, J.A. & Levin, J. (2006). *Extreme Killing: Understanding Serial and Mass Murder*. Thousand Oaks, CA: Sage Publications.

Giannangelo, S. (1997). *The Psychopathology of Serial Murder: A Theory of Violence*. Westport, CT: Praeger.

Godwin, M. (2000). *Hunting Serial Predators*. Baton Rouge, LA: CRC Press.

Godwin, M. & Canter, D. (1997). Encounter and death the spatial behavior of US serial killers. *Policing*, 20 (1), 24.

Goodwill, A. & Alison, L. (2005). Sequential angulation, spatial dispersion and consistency of distance attack patterns from home in serial murder, rape and burglary. *Psychology, Crime & Law*, 11 (2), 161-176.

Gresswell, D.M. & Hollin, C.R. (1994). Multiple murder: A review. *British Journal of Criminology*, 34, 1-14.

Harbort, S. & Mokros, A. (2001). Serial murderers in germany from 1945 to 1995: A descriptive study. *Homicide Studies*, 5 (4), 311-334.

Haynie, D. & Armstrong, D. (2006). Race- and gender- disaggregated homicide offending rates: Differences and similarities by victim-offender relations across cities. *Homicide Studies*, 10 (1), 3-32.

Hempel, A., Levine, R., Meloy, J.R., & Westermeyer, J. (2000). A cross-cultural review of sudden mass assault by a single individual in the oriental and occidental cultures. *Journal of Forensic Sciences*, 45, 582-588.

Herkov, M. & Biernat, M. (1997). Perceptions of the media in a community exposed to serial murder. *Journal of Clinical Psychology*, 53(8), 909-915.

- Hickey, E. (1991). *Serial killers and Their Victims*. Pacific Groves, CA.: Brooks/Cole Publishing Co.
- Hickey, E. (1997). *Serial killers and their victims*. Belmont, CA.: Brooks/Cole Publishing Co.
- Hickey, W.E. (2002). *Serial Murderers and their Victims*. Belmont, CA.: Wadsworth Publishing Company.
- Hickey, W.E. (2006). *Serial Murderers and their Victims*. United States: Thomson & Wadsworth.
- Holmes, R.M. & DeBurger, J. (1988). *Serial Murder*. Thousand Oaks, CA.: Sage Publications.
- Holmes, S., Hickey, E., & Holmes, R. (1991). Female serial murderesses: Constructing differentiating typologies. *Journal of Contemporary Criminal Justice*, 7 (4), 245-256.
- Holmes, R.M. & Holmes, S.T. (1992). Understanding mass murder. *Federal Probation*, 56 (1), 53-61.
- Holmes, R.M. & Holmes, S.T. (1994). *Murder in America*. Thousand Oaks, CA.: Sage Publications, Inc.
- Holmes, R.M. & Holmes, S.T. (2001). *Mass Murder in the United States*. New Jersey: Prentice Hall.
- Jenkins, P. (1989). Serial murder in the united states 1900-1940: A historical perspective. *Journal of Criminal Justice*, 17, 377-392.
- Jenkins, P. (1991). Changing perceptions of serial murder in contemporary England. *Journal of Contemporary Criminal Justice*, 7, 210-231.

Jenkins, P. (1993). African Americans and serial homicide. *American Journal of Criminal Justice*, 17, 2, 47-60.

Jenkins, P. (1994). Using Murder: The Social construction of Serial Homicide. New York, NY: Aldine de Gruyter.

Jenkins, P. (1998). African Americans and Serial homicide. In R. Holmes & S. Holmes (Eds.), *Contemporary perspectives on serial murder*. Thousand Oaks, CA.:Sage Publications.

Kivivuori, J. & Lehti, M. (2003). Homicide followed by suicide in finland: Trend and social locus. *Journal of Scandinavian Studies in Criminology and Crime Prevention*, 4, 223-236.

Kraemer, G., Lord, W., & Heilbrun, K. (2004). Comparing single and serial homicide offenses. *Behavioral Sciences and the Law*, 22, 325-343.

Leibman, F.H. (1989). Serial murderers: Four case histories. *Federal Probation*, 53 (4), 41-43.

Lester, D., Stack, S., Schmidtke, A., Schaller, S., & Muller, I. (2005). Mass homicide and suicide deadlines and outcome. *Crisis*, 26 (4), 184-187.

Levin, J. & Fox, J. (1985). Mass murder: America's growing menace. New York: Plenum.

Leyton, E. (2005). Hunting Humans: The Rise of the Modern Multiple Murderer. Toronto: McClelland & Stewart.

Mann, C. (1990). Female homicide and substance use: Is there a connection? *Women & Criminal Justice*, 1 (2), 87.

- McGee, J. & DeBernardo, C. (1999). The classroom avenger. *Forensic Examiner*, 8, 16-18.
- Meloy, J., Hempel, A., Gray, T., Mohandie, K., Shiva, A., & Richards, T. (2004). A comparative analysis of north american adolescent and adult mass murderers. *Behavioral Sciences and the Law*, 22, 291-309.
- Meloy, J., Hempel, A., Mohandie, K., Shiva, A., & Gray, B. (2001). Offender and offense characteristics of a nonrandom sample of adolescent mass murderers. *Journal of American Academy of Child and Adolescent Psychiatry*, 40 (6), 719-728.
- Messing, J. & Heeren, J. (2004). Another side of multiple murder. *Homicide Studies*, 8 (2), 123-158.
- Morrison, H. & Goldberg, H. (2004). *My Life Among the Serial Killers: Inside the Minds of the World's Most Notorious Murderers*. New York: HarperCollins Publishers Inc.
- Mott, N.L. (1999). Serial murder: Patterns of unsolved cases. *Homicide Studies*, 3, 241-255.
- MSNBC. (2007). Worst U.S. shooting ever kills 33 on Va. campus. Retrieved June 17, 2007, from <http://www.msnbc.msn.com/id/18134671/>.
- O'Reilly-Fleming, T. (Ed). (1996). *Serial and Mass Murder: Theory, Research and Policy*. Toronto: Canadian Scholars' Press.
- Palermo, G. (2002). Criminal profiling: The uniqueness of the killer. *International Journal of Offender Therapy and Comparative Criminology*, 46 (4), 383-385.
- Petee, T., Padgett, K., & York, T. (1997). Debunking the stereotype: An

examination of mass murder in public places. *Homicide Studies*, 1, 317-337.

Phillips, J. (2002). White, black, and latino homicide rates: Why the difference? *Social Problems*, 49 (3), 349-373.

Pino, N. (2005). Serial offending and the criminal events perspective. *Homicide Studies*, 9 (2), 109-148.

Piorowski, C. (1997). Confirmatory research on the assessment of murderers. *Psychological Reports*, 81, 1025-1026.

Porter, S., Woodworth, M., Earle, J., Drugge, J., & Boer, D. (2003). Characteristics of sexual homicides committed by psychopathic and nonpsychopathic offenders. *Law and Human Behavior*, 27 (5), 459-470.

Purcell, C. & Arrigo B. (2006). *The Psychology of Lust Murder: Paraphilia, Sexual Killing, and Serial Homicide*. Boston: Elsevier.

Ramsland, K. (2005). *Inside the Minds of Mass Murderers*. Connecticut: Praeger.

Ressler, R.K., Burgess, A.W., & Douglas, J.E. (1988). *Sexual Homicide: Patterns and Motives*. New York: Lexington Books.

Rock, P. (1998). Murderers, victims and 'survivors'. *The British Journal of Criminology*, 38 (2), 185-200.

Seltzer, M. (1998). *Serial Killers: Death and Life in America's Wound Culture*. New York: Routledge.

Shon, P. & Milovanovic, D. (2006). *Serial Killers: Understanding Lust Murder*. Durham, North Carolina: Carolina Academic Press.

- Skrapec, C. (2001). Phenomenology and serial murder: Asking different questions. *Homicide Studies*, 5 (1), 46-63.
- Swaneagle, H. (2004). Serial torture murders from Chihuahua to Edmonton, Guatemala to Alaska; Connecting the genocidal dots. *Turning the Tide*, 17 (2), 3.
- Sweet, S. & Grace-Martin, K. (2003). *Data Analysis with SPSS* (2<sup>nd</sup> Ed.). Boston: Pearson Education, Inc:
- Torres, A., Boccaccini, M., & Miller, H. (2006). Perceptions of the validity and utility of criminal profiling among forensic psychologists and psychiatrists. *Professional Psychology: Research and Practice*, 37 (1), 51-58.
- Verlinden, S., Hersen, M., & Thomas, J. (2000). Risk factors in school shootings. *Clinical Psychology Review*, 20, 3-56.
- Walsh, A. (2005). African americans and the serial killing in the media: The myth and reality. *Homicide Studies*, 9 (4), 271-291.
- Warf, B. & Waddell, C. (2002). Heinous spaces, perfidious places: The sinister landscapes of serial killers. *Social and Cultural Geography*, 3, 323-345.
- Welzer, H. (2004). Mass murder and moral code: some thoughts on an easily misunderstood subject. *History of the Human Sciences*, 17 (2/3), 15-32.
- Woodworth, M. & Porter, S. (2002). In cold blood: Characteristics of criminal homicides as a function of psychopathy. *Journal of Abnormal Psychology*, 111 (3), 446-445.



### **Biographical Information**

Kendra Bowen was born February 8, 1983, in Wichita Falls, TX. She graduated Cum Laude from Midwestern State University in May of 2005, with a Bachelors of Social Work with a second major in Criminal Justice. Kendra earned her Masters of Science in Social Work in May of 2007, and a Masters of Arts in Criminology and Criminal Justice in August 2007, both from the University of Texas at Arlington. She has always had an interest in serial and mass murder. She hopes to continue to learn and conduct research of violent crimes. She plans to attend the Criminology Doctorate Program at the Indiana University of Pennsylvania in the Fall of 2007.