

CRIMINAL PSYCHOLOGICAL PROFILING: A COMPARATIVE STUDY OF
KNOWLEDGE AND PERCEPTION BETWEEN POLICE OFFICERS AND
CRIMINOLOGY AND CRIMINAL JUSTICE STUDENTS

by

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ABSTRACT

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The purpose of this study is to examine the knowledge and perceptions of police officers from police departments in North Texas and students in the Criminology and Criminal Justice program at the University of Texas at Arlington on criminal psychological profiling. Data was obtained from a sample of graduate and undergraduate students at the University of Texas at Arlington and police officers in the Investigation Unit at Irving Police Department. Officers and students seemed to agree that criminal psychological profiling was a significant tool in the criminal justice field, while having differing

perceptions of whether education or experience were more important in this field. Officers and students also disagreed on what levels of law enforcement should use criminal psychological profiling. However, the majority of participants showed some knowledge of the basic workings of criminal psychological profiling.

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CHAPTER 1

INTRODUCTION TO PROFILING

1.1 Introduction

There are many different techniques used throughout law enforcement agencies to apprehend offenders, such as community policing and traditional investigation. One of the most highly publicized, and often scrutinized, is criminal psychological profiling. This method of analyzing a crime scene and building a case is often portrayed in the media as involving psychic abilities, such as in the television series *The Profiler* (Rogers, 2003).

According to Kocsis (2003), due to much of the national and international attention of the popular media directed toward criminal psychological profiling, many law enforcement officers are skeptical of the actual validity of this technique, believing that traditional police investigations are more thorough and complete ways of investigation. Law enforcement officers have an extensive knowledge base when it comes to the actual needs and processes involved in solving a serial homicide case. Television and movies often lead the public to believe

that crimes can be committed, investigated, solved, and prosecuted in a matter of days. This is not the case.

One could conclude that the popular media has caused a large misconception of how the criminal justice system actually functions, and the focus of many of these popular televisions series, movies, and books is criminal psychological profiling. The detectives on *Law and Order: SVU* often work with a criminal psychological profiler from the FBI's Behavioral Science Unit. *Criminal Minds* is a show focused completely on a team of criminal psychological profilers who travel throughout the United States assisting local police departments with mysterious serial homicide cases. In each of these shows, the characters are criminal psychological profilers who are portrayed as being able to solve crimes in very short periods of time, and often solving crimes that other investigators have not been able to solve using more traditional methods.

According to Rogers (2003), the most famous criminal psychological profiling film, and the one that is most often credited with starting society's fascination with this investigative technique, is *Silence of the Lambs* and

its infamous Dr. Hannibal Lector. This film took aspects of many different actual serial murders, and compiled them into one storyline. With the release of this movie in 1991, there began a frenzy of public fascination toward the FBI's process of psychologically profiling serial criminals and investigating their crimes.

1.2 Hypothesis

This study will examine specifically the differences and similarities of perception and knowledge between two groups, students and police officers. The purpose of this study is to examine the knowledge and perceptions of police officers from police departments in North Texas and students in the Criminology and Criminal Justice program at the University of Texas at Arlington on criminal psychological profiling.

1.3 Introduction to Profiling and the Scientific Process

Criminal psychological profiling is an investigative technique that is based on the analysis of the nature of the crime committed and the manner in which it was done. Various aspects of the perpetrator's personality makeup are determined from his or her choices before, during, and after the crime. This information is combined with other

relevant details and physical evidence, and compared with the characteristics of known personality types and mental abnormalities to develop a practical working description of the perpetrator. Though there are different variations on the process followed when developing a criminal psychological profile, the most commonly followed model is that which was developed by the Federal Bureau of Investigation (FBI) in the late 1970's (Theoharis, Poveda, Rosenfeld and Powers, 2000).

To begin this method, the investigator must determine the perpetrator characteristics involved. This is an assimilation phase where all information available in regard to the crime scene, victim, and witnesses is examined. This includes any photographs of the crime scene, autopsy reports, victim profiles, witness statement, or police reports given (Douglas, Ressler, Burgess, and Hartman, 1986).

The next step is the classification stage. This involves integrating the information collected into a framework which classifies the perpetrator as organized or unorganized. Organized perpetrators are thought to have advanced social skills, plan their crimes, display control

over the victim using social skills, leave little forensic evidence or clues, and often engage in sexual acts with the victim before the crime is committed. An unorganized perpetrator is described as impulsive, with little or no social skills, thus making these murders more opportunistic. Crime scenes suggest frenzied behavior and a lack of planning or attempts to avoid detection. The offender might engage in sexual acts after the crime, due to the fact that they lack knowledge of normal sexual behavior (Douglas, Ressler, Burgess, and Hartman, 1986).

After the perpetrator is classified, the criminal psychological profilers begin to attempt to reconstruct the behavioral sequence of the crime that was committed. The investigators focus particularly on the perpetrators modus operandi, or MO, which is the perpetrator's method of committing the crime. They then begin to analyze the perpetrator's signature (Douglas, et al, 1986). A serial offender's signature is "his psychological 'calling card' that he leaves at each crime scene across a spectrum of several [crimes]" (Keppel and Birnes, 1998, p.2). A signature is different from MO in that it makes each offender unique. While an offender's MO may be that he or

she commits breaking and entering crimes at night by cutting glass with a glass cutter, the offender's signature would be that he or she used fly paper to pull the glass down without breaking it instead of suction cups or another such material (Keppel and Birnes, 1998).

After analyzing the perpetrator's signature, considering this with the modus operandi in the crime, and also investigating for any staging in the crime, the criminal psychological profiler begins to create an actual profile of the person who committed the crime. A criminal psychological profile can contain very detailed information on many different aspects of the perpetrator's life, such as demographic information, family background, personality, education, military background, and can even include interview suggestions for when the suspect is apprehended (Douglas, et al, 1986).

According to Kocsis and Cooksey (2002b) though criminal psychological profiling is most often thought of as being used for homicide cases, it can also be used in other types of crimes. It has been used in cases of serial arson and serial rapists (Kocsis, Cooksey, Irwin, 2002b). In these instances the investigator must alter the

importance, or placement, of sexual acts in the analysis when building the criminal psychological profile. However everything else can be viewed much the same way.

Perpetrators of these types of serial crimes still have a modus operandi, and leave a signature. Though the crimes that were committed may be vastly different, the investigations, in the sense of creating a criminal psychological profile, can be worked in much the same way (Kocsis and Cooksey, 2002).

1.4 Usefulness to Law Enforcement Officers - Key Players

One could conclude that this can be quite useful to law enforcement officers. There have been many examples of successful law enforcement personnel who have worked with criminal psychological profiling techniques, and used them to apprehend many elusive serial offenders. According to Theoharis (2000), some examples of law enforcement officers who have successfully used criminal psychological profiling in the field are John Douglas, Robert Ressler, and Robert Keppel. Each of these men have spent many years in the field of law enforcement and made many contributions to help advance the science of criminal justice. While each of these investigators is different in

many ways, they all believe that criminal psychological profiling is an effective way of tracking and apprehending serial offenders.

John Douglas (2003) writes that he began with the FBI assigned to investigate bank robberies in Detroit, Michigan. After several years with the Bureau, he was transferred into the Behavioral Science Unit, in 1977, where he began to interview infamous serial killers, such as David Berkowitz, Ed Kemper, and Charles Manson. After he interviewed a notorious rapist in Maryland in 1980, he began to formulate a pattern between all of the serial offenders he had interviewed throughout his years in the Behavioral Science Unit, and noted that it also applied to the serial bank robberies from his days in Detroit.

Though Douglas began presenting his ideas to the FBI, they were resistant to his new methods of investigating these types of crimes. Douglas was a member of the Investigative Support Unit within the Behavioral Science Unit, which was in charge of investigating the most violent and gruesome unsolved homicides. At first his aggressive methods were ignored. However, after showing other agents that his methods were, in fact, valid he

began to gain support. He served 25 years with the FBI, gaining the nickname "The Mindhunter" due to his innovative methods of investigating serial homicides (Douglas, 2003).

According to Ramsland (2007), Robert Ressler is another former FBI agent who was instrumental in forming the Behavioral Science Unit. Robert Ressler began with the Bureau in 1970. He was quickly recruited into the Behavioral Science Unit, where he helped develop many of the modern practices and principles that are used in criminal psychological profiling. While working with the FBI, Mr. Ressler interviewed over 36 well-known serial killers, ranging from John Wayne Gacy to David Berkowitz. He retired from the Federal Bureau of Investigation in 1990, but continues to use criminal psychological profiling tactics in a private business.

Bellamy (2007) tells us that Dr. Robert Keppel. was formerly a detective for the King County Major Crimes Unit in Washington State. He was the chief investigator in the investigation that led to Ted Bundy's capture. He has also consulted on other high profile cases such as the Green River Killer and the Atlanta Child Murders. Throughout his

career as a detective in King County, Robert Keppel was faced with over 2000 murder investigations. He began to see patterns, as John Douglas and Robert Ressler did. Robert Keppel found that criminal psychological profiling was a key tool in narrowing the search for the perpetrators in many of the cases that he investigated. He was able to narrow his suspect pool to a specific group of individuals in order to help the investigative teams do their jobs more thoroughly.

1.5 Popular Media and Popular Literature

Each of these men has been portrayed in different ways in many movies, as well as having been written about in different fictional novels. John Douglas was the model for Jack Crawford in *Silence of the Lambs*, in addition to being the model for many other characters both in print and on screen (Douglas, 2003). There have been multiple movies made about the Ted Bundy case and the Green River Killer, in each of these films, Robert Keppel is portrayed in different lights (Bellamy, 2007). Robert Ressler has been the influence for different fictional federal agents throughout the years; like John Douglas, he is portrayed in literature and on screen (Ramsland, 2007). Though each

of these men's contributions to the criminal justice field have been quite large, society's view of what they have actually done, and what those who have followed them actually do, is quite skewed.

Each of these men have written many books and given extensive lectures on the validity and helpfulness of criminal psychological profiling to the field of criminal justice. However, one could argue that their contributions, not only to their field of study, but to the knowledge base and field of literature have done little to dispel society's misconceptions toward themselves and others who practice this investigative technique.

A person could conclude that the popular media and popular literature have portrayed criminal psychological profiling as an investigative tactic quite different from its reality. It is perceived by many as a glamorous and easy way to solve serial crimes and ensure that guilt is proven. Criminal psychological profilers in movies are often shown wearing clothing that is inappropriate for investigating crimes, such as women in high heels and low-

cut blouses, and men wearing expensive, light-colored suits (Rogers, 2003).

One could argue that while these facts do often make storylines in movies and television shows more interesting, they have given society, as a whole, a very misguided view of what criminal psychological profilers do, and what the science is actually based on. Shows such as *The Profiler* portray psychic visions, while *Criminal Minds* portrays the FBI as having only seven to eight agents to cover the entire country at all times, and occasionally crossing the border into Mexico to solve murders there, as well.

Due to society's fascination with violent crimes, the public is frequently faced with the misguided images of criminal investigation and criminal psychological profiling. It could be said that this information is where many people base their knowledge. Police officers and criminal justice students, though they have a much stronger knowledge base than the general public, also see these shows, movies, and books each time they read or watch television. These shows contend with the knowledge that they have from their training.

Police officers are trained in traditional investigative techniques, which are different in many ways from criminal psychological profiling. After seeing the way that criminal psychological profiling is portrayed in the popular media and literature, are officers more likely to trust or mistrust this type of investigation? Criminal justice students also have a knowledge base of how the criminal justice system actually functions. Do television shows and movies that have become so popular affect the way that they see criminal psychological profiling?

This study will look at the differences between these two groups of people, students and police officers. The researcher will investigate the similarities and differences in their perceptions and knowledge of criminal psychological profiling.

In Chapter 2 the author will provide a comprehensive literature review, outlining the history of criminal psychological profiling, noting some of the earliest investigations in which it was used. The author will also discuss different types of profiling, as well as the different definitions of the term 'profiling'.

In Chapter 3, the author will outline the creation and distribution of the survey instrument to students in the Criminology and Criminal Justice program at the University of Texas at Arlington (UTA) and the Irving Police Department. Further details will be discussed as to how participants were selected and what type of data were collected from the survey instrument.

In Chapter 4, the author will present the findings of the study of perceptions and knowledge between law enforcement officers and students. Tables will be discussed representing the demographic information; perception based questions, as well as the knowledge based questions. Statistically significant variables will be highlighted.

Finally, in Chapter 5 the author will discuss the findings of the survey data and possible policy implications of these findings. Further research possibilities will be discussed, as well as discussing the limitations and shortcomings of this specific research project.

CHAPTER 2

THE HISTORY AND DEVELOPMENT OF PROFILING

In this chapter, the author will highlight topics pertaining to the different types of criminal psychological profiling as they relate to the purpose of this study, which is to examine the knowledge and perceptions of police officers and students on criminal psychological profiling. The author will look at some of the historical aspects of psychological profiling as well as the actual definition of profiling. The author will then explore different view points and variables involved in the actual process of profiling a crime from a psychological standpoint.

2.1 Definitions

Gregory (2005) tells us that the term 'profiling' can refer to more than one type of investigative action. When used in reference to criminal profiling, the literature uses a multitude of terms to refer to this investigative technique, including psychological profiling, behavioral profiling, forensic psychiatry, investigative psychology,

criminal personality profiling, and criminal psychological profiling.

Criminal psychological profiling is an investigative technique that involves analyzing criminal behaviors and crime scene evidence to create a description of the probable offender who committed the analyzed crimes (Kocsis and Cooksey, 2002).

2.2 Historical Information

Criminal profiling has been used for well over a century throughout the world. It was originally seen in Great Britain in the infamous case of Jack the Ripper. Local authorities sought help from many different areas to create a profile of the person who could be committing these horrific crimes. The entire city created a profile, both publicly and privately, of who had killed all those women (Rogers, 2003).

According to Rogers (2003), behavioral profiling was used again in World War II as the Allies attempted to create a profile of Adolf Hitler. They intended to use the profile in his interrogation if and when he was ever captured. There have been some notably failed criminal psychological profiles historically. One of the most

famous is that of the Boston Strangler which stated there were two different murderers, claiming that the older victims were being killed by a homosexual offender. History has shown that there was only one perpetrator, but this example shows how different psychological profiling used to be. It was more of an art than a science. Investigators had little training in the areas of criminal psychology and did not understand many of the areas that are now seen as quite important in the field of criminal psychological profiling (Ferraro, 2001).

However, it was not until the Mad Bomber of New York was so famously profiled in 1956 that criminal psychological profiling began to gain public interest on an international level. James Brussel's famous profile took the world by storm, and gave this investigative tool the notoriety that it holds today (Gregory, 2005). This profile was accurate to the point of noting that the offender would be wearing a buttoned, double-breasted suit (Ferraro, 2001).

As criminal psychological profiling began to emerge as a potential tool for capturing long-time evasive targets, the Federal Bureau of Investigation developed the

Behavioral Science Unit. This unit began to perfect the techniques of criminal profiling, and has since developed the practices and strategies that are used today (Gregory, 2005).

2.3 Different Types of Profiling

Criminal psychological profiling is also complemented by other, similar types of profiling. According to Snook, Zito, Bennell, and Taylor (2005), one such type of profiling is geographic profiling. This type of profiling is a branch of criminal profiling, but it focuses less on the offender's background, and more the offender's location. Geographic profilers use both quantitative and qualitative assessments to create a profile of an offender's location.

The geographic profiler considers things such as the offender's hunting style, density of potential victims, the locations of major roads and highways, physical boundaries, psychological boundaries, zoning, and land use. Each of these things is carefully considered before creating the offender's mental map to ensure that the location being considered is also a plausible location. Geographic profilers must consider all aspects because

analyzing these issues and not considering their specified location is in the middle of a desert would deem their research quite useless (Snook, Zito, Bennell, and Taylor, 2005).

Analyzing offenders' hunting patterns is made easier by the fact that researchers have been able to look at previous offenders and study their habits to create patterns. Beauregard, Rossmo, and Prouix (2007) used a model containing nine phases to study serial sex offenders' hunting patterns. The phases were: offender and victim routine activities; choice of hunting ground, victim selection, method of approach; attack location choice; method of bringing the victim to the crime site; crime location choice; method of committing the crime; and the victim release location choice.

Throughout each of the phases the offender is in a different mindset, yet remains quite focused on the task at hand. Each step takes the offender closer to successful completion of the crime. With each step, the offender learns more about themselves, and becomes stronger as they move on to the next phase (Beuregard, Rossmo, and Prouix, 2007).

Another branch of criminal profiling is forensic deoxyribonucleic acid (DNA) profiling. DNA profiling is used in cases where there is either no DNA in the system to match to a crime scene, or there is not enough DNA left at a crime scene to match. Forensic DNA profiling can also be used to identify a highly battered victim or badly decomposed body.

"At the highest level, populations contain identifiable racial groups such as European Caucasians, African Blacks, or Polynesians. Below this come ethnic groups within races such as Finns and Italians, or Zulu and Masai, or Samoan and Maori, respectively. Finally, we come to extended family groups, often living together in individual towns and villages (Chambers, Cordiner, Buckleton, Robertson, Vignaux, 1997, pp 1-2)."

For the reasons mentioned in the above quote, forensic DNA profiling can be highly useful in identifying unknown suspects or victims when little else is known. If a body is badly burned or left in the water for too long to be identified, this is the type of identification that is used. This type of DNA profiling aids in many criminal investigations, especially cold case divisions, because it allows for victim identifications to be narrowed down with missing persons reports (Chambers et al, 1997).

Brandstatter, Parsons, and Parson (2003) have also done extensive work in the field of DNA profiling. Their focus has been on European Caucasian haplogroups. A haplogroup is a group that shares a common ancestor with a single molecular mutation. These researchers' discoveries also note that this type of profiling, while beginning in the medical field, has been quite useful to those in the criminal justice field, as well, as it can help to identify the race of an individual by where their heritage lies.

2.4 Different Uses for Psychological Profiling

Criminal psychological profiling is used in many branches of the criminal justice system. It can be used in cases that have gone cold, as mentioned previously. It is most commonly used in cases that are ongoing or in cases that appear to be committed by the same offender.

Criminal psychological profiling has been used to profile not only criminals who have already committed crimes, but those who are likely to commit crimes based on previous offenders, commonly known as copycat criminals, as well. Michael D. Kelleher (1997) wrote an analysis of the likely characteristics of lethal employees following

the rash of workplace mass homicides in America in the 1990's. He used the case files from those cases, along with psychological analyses from each of the offenders to determine what they had in common. They were all "socially isolated, middle-aged, white men" (Kelleher, 1997, pg 169).

The profile went on to list many other characteristics that are triggers that a person might be about to do something rash, noting that these are things that should be watched for in employees. Kelleher (1997) compared these tragedies to Arthur Miller's *Death of a Salesman*, and went on to show how this is becoming a trend in the United States, by using criminal psychological profiling techniques (Pettit, 1999).

Another area of research that is being looked into in the area of criminal psychological profiling, but has not been properly addressed, is that of neural networking. Marco Strano (2004) has begun conducting research to use neural networking and data mining to create a computerized database of previous offenders' profiles so that criminal psychological profiling can be used in single crime cases. This research is still being conducted to further the

knowledge of how it can be helpful to individuals in the criminal justice system.

2.5 FBI Training and Methodology

While criminal psychological profiling has been a common practice for law enforcement agencies for many decades, there has been little empirical research into the effectiveness and the methodology used in the training. Hazelwood, Ressler, Depue, and Douglas (1995) note that the FBI's Behavioral Science Unit list the key elements to criminal psychological profiling as appreciation for the psychology of the criminal, investigative experience, logical and objective thinking ability, and intuition.

Appreciation for the criminal mind is defined as an understanding that the type of person who committed a given crime requires appreciation for how the criminal mind functions (Hazelwood et al, 1995). However, the researchers from the FBI Academy did not believe that this type of intuition could be learned in the classroom. They believed that this had to come from experience in the field of investigation and dealing with criminals themselves (Kocsis, Irwin, Hayes, and Nunn, 2000).

Investigative experience was deemed the most important part of the criminal psychological profiling training by Hazelwood, et al. (1995). These researchers and trainers believe that this experience goes beyond any training that can ever be given. Experienced investigators pay intense attention to details that behavioral scientists would otherwise overlook, according to Hazelwood et al. (1995) and this is the key to understanding the criminal mind and creating an accurate psychological profile.

Objective and logical analysis is what makes a criminal psychological profiler able to think logically without being distracted by personal feelings and emotions about the crime that has been committed, the offender, or the victims. This suppresses all likelihood of the profile being created being subjective. One of the keys to creating an accurate psychological profile is that all members of the team must remain objective to the project at hand (Hazelwood et al, 1995).

The final characteristic, according to the FBI, necessary to be an effective criminal psychological profiler is intuition. This is also a vital characteristic

when creating a psychological profile (Hazelwood et al, 1995). However, one could speculate that it is this characteristic that the popular media has latched onto and publicized the most. While profilers are often portrayed as clairvoyant, this is not the case. According to Hazelwood, et al. (1995), a good criminal psychological profiler must have common sense to function well in their job. This is due to the fact that criminal psychological profiling is a branch of behavioral science used in law enforcement to investigate crimes, therefore it can put an investigator not only in dangerous situations, but also put them in time constraints of saving others (Kocsis, Irwin, Hayes, and Nunn, 2000).

2.6 Is Criminal Psychological Profiling Effective?

Due to the fact that little empirical research has been done on the effectiveness of criminal psychological profiling, it has faced considerable controversy. Davis and Follette (2002) argued that profiling should not be admitted into court as evidence. They held that some characteristics presented in criminal psychological profiles are not probative of guilt in the cases being presented.

It was their opinion that profiles involving any intuition were nothing but stereotypes, and therefore inadmissible in court proceedings. Davis and Follette (2002) presented a study suggesting that empirically based intuitive profiling evidence regarding a defendant's characteristics or behaviors to formal or scientific profiles of the typical perpetrator of the crime in question for use to prove guilt should be inadmissible in American courts. They stated that it undermines a jury's ability to think for themselves, as they are swayed by expert testimony on what they viewed as mere opinions (Davis and Follette, 2002).

This opinion was supported in an article by Gary Wells (2003). Wells took Davis' and Follette's (2002) point and made it more specific, relating it to the murder case of Scott Peterson. In this study, he related the fact that the profile used to arrest Scott Peterson contained the fact that he was having an extramarital affair.

According to statistical research, only four men out of one million murder their wives; however 250,000 out of one million are unfaithful (Wells, 2003). Therefore, the conclusions of his study claimed that characteristics that

are common to the general population should not be allowed to have detrimental effects on persons on trial. Wells (2003) stated that these characteristics and attributes should be ruled inadmissible in court.

While criminal psychological profiling has received criticism from different areas due to the lack of research involved in the area, much of the research that has been conducted was done by the same few researchers. Eric Beauregard and Richard Kocsis have conducted many studies in the different areas of criminal psychological profiling. One such study was conducted in 2005 by Beauregard, Lussier, and Prouix. This study looked at the role of sexual interest and situational factors on rapists' modus operandi and the implications this had on offender profiling. In this study the researchers looked at the level of organization of the offenses, the level of force used by the offender, and the level of injury inflicted upon the victim. The researchers found that the greater the offender's sexual arousal during the attack, the higher their level of nonsexual violence and the more organized their modus operandi appeared to be.

However, this did not correlate well with the criminal psychological profiles that had been created for these crimes. This study shed light on why sexual arousal often leads to nonsexual violence (Beauregard et al, 2005). These types of results had not been seen before and allowed investigators and profilers to begin looking at what they had previously been doing wrong.

Richard Kocsis, Harvey Irwin, Andrew Hayes, and Ronald Nunn (2000) conducted a study in which they gave five different groups of adults a set of crime scene evidence and asked them to create a psychological profile of the offender who committed the crime described. The researchers also asked the five different groups to answer a survey in order to analyze which group more closely profiled the offender, as the murder being analyzed was a solved case. The five groups being studied were: profilers, police, psychologists, students, and psychics. The survey consisted of questions on physical characteristics, cognitive processes, offense behaviors, and social history and habits. The surveys were rated on these measures as well as total accuracy and Pinizzotto and Finkel (1990) accuracy. Pinizzotto and Finkel (1990)

was used because the survey contained measures from a previous study to see how the results compared.

As a control group, the researchers also gave the survey to a group of individuals without all the information about the crime that was committed, simply telling them that it was a homicide.

The results of the written profiles were not analyzed in this study other than to note that the profilers wrote much richer, detailed profiles than the other groups. The results of the survey were much of what the researchers expected. The profilers scored highest in every category except offensive behavior, in which the psychologists were slightly higher. However, the researchers attribute this to sampling error. With the exception of this one measure, the profilers were most accurate, followed by the psychologists, then students, police, and lastly the psychics. The control group answered the survey most inaccurately, except in some instances less so than the psychics. This implies that the societal stereotype surrounding who generally commits murder is inaccurate. The other results of this study implied that the training that both psychologists and profilers receive paired with

the experience and expertise of a profiler creates the ideal situation for law enforcement personnel to accurately create criminal psychological profiles (Kocsis et al, 2000).

In 2003, Kocsis went back and assessed the psychological profiles that were written by the five groups in the original study. As stated in the original study, the profiles written by the professional criminal psychological profilers were much lengthier. These profiles also contained many more details about the offender's nonphysical attributes and information about the crime scene, the offender's behavior before the act, during, and after the crime was committed.

To assess the profiles, Kocsis (2003) looked for three dimensions in each of the psychological profiles: physical aspects of the offender, nonphysical aspects of the offender, and aspects of the crime and/or the offender's behavior before, during, and after the crime. The results of this analysis showed that while criminal psychological profilers were able to write longer psychological profiles, their profiles contained equal amounts of details about behavior as psychologists. The

results also showed that all groups provided the same number of physical descriptions of the offender.

Another study was conducted to replicate Kocsis' original findings using five different groups to compare investigative experience (Kocsis, Hayes, and Irwin, 2002). These researchers wanted to further investigate the theory that law enforcement experience was the most important factor in criminal psychological profiling (Hazelwood et al, 1995). The five groups that the researchers used in their study were homicide detectives, senior police detectives, trainee detectives, police recruits, and undergraduate chemistry students. There was also a control group that was given the survey with no information about the crime committed other than it was a homicide (Kocsis, Hayes, and Irwin, 2002).

The set up of this study was similar to that of the original. Each participant was given a packet of information containing crime scene evidence from a solved homicide and a survey. The participants completed the surveys which were then assessed on the same six attributes as in the previous study. However, this time the chemistry students were consistently more accurate in

their responses to the survey questions than any of the other groups. There was some evidence of an inverse relationship between investigative experience and the accuracy of the profiles (Kocsis, Hayes, and Irwin, 2002).

The results of this study contradicted those of the previous study completely, shedding shadow and skepticism on the original results. The results of this study also cast further doubts onto the claims of Hazelwood et al. (1995) that there can be no substitute for experience. The researchers in this study went so far as to suggest that the FBI rethink their policy of requiring applicants into the Behavioral Science Unit to have previous experience in law enforcement due to the fact that in this study chemistry students were consistently more accurate with their profiles (Kocsis, Hayes, and Irwin, 2002) and in the original study the biology students were more accurate in their profiles than the police officers who participated (Kocsis, Irwin, Hayes, and Nunn, 2000).

There has also been a series of studies done on criminal psychological profiling on specific types of serial crimes. One of the crimes that was studied is serial arson. In 2002, Kocsis and Cooksey published a

study citing probable offender characteristics based on analyses of previous model behaviors of serial arsonists. In this study, the researchers analyzed previous cases from a database, looking for personal offender characteristics, general offender behavior variables, and event-specific offender behaviors and choices variables. They created cluster charts from analytical data in order to better understand the similarities between their offenders.

The results from this study showed that serial arson crime scene behaviors focused on a centrally located constellation of common behaviors surrounded by four different, distinct patterns. Each of those patterns represented a very specific style of serial arson attack and consisted of different, yet similar, characteristics that were specific to the attack style of the arsonist in question (Kocsis and Cooksey, 2002).

Kocsis, Cooksey, and Irwin (2002a) did a study in which they investigated what characteristics sexual murderers have in common. The researchers analyzed data from eighty-five cases of sexual murder using multidimensional scaling. A central cluster of behaviors

was identified, most of which are common to all patterns of sexual homicide. This cluster noted three main characteristics: intercourse with the victim, violence, and premeditation/precaution carrying out the offense. After these characteristics were identified, the researchers began to investigate the crimes more specifically and narrowed the characteristics into four distinct patterns of attack: fury, predator, rape, and perversion. The researchers then used cluster patterns to identify characteristics of each of these four types of offenders.

The results of this study indicated that while there are different patterns and reasons for sexual murder, several of the characteristics are similar. Sexual murders share many common traits; however each type of attacker has a select few individualities that make their killing pattern unique (Kocsis, Cooksey, and Irwin, 2002a).

In another study by Kocsis, Cooksey, and Irwin (2002b), the researchers studied the characteristics of serial rapists. The researchers followed the same procedures that they followed in the first study, analyzing data from sixty-two incidents of serial sexual

assaults, and analyzing them using the multidimensional statistical method.

The researchers again identified characteristics common to all serial sexual assault offenses. These characteristics were not those indicative of sexual intercourse, but the characteristics associated with the offender's planning and taking precautions to avoid apprehension. After the researchers had identified this set of characteristics they began to look for more specific sets of characteristics that could identify certain patterns of attack and therefore set the offenders into groups by type of assailant. The four types of patterns identified were: brutality, intercourse, chaotic, and ritual. Each of these types of offender's had their own set of characteristics that is unique to the type of serial rapes that they committed (Kocsis, Cooksey, Irwin, 2002b).

The results of these two studies indicated that while offenders can have similar characteristics in the way that they plan their crime, it is the way that they carry out their attacks that make the attacks unique. Also, the motivation behind their attacks often determines much of

the modus operandi of the offender (Kocsis, Cooksey, Irwin, 2002).

Kocsis and Middledorp (2004) did a study exploring the relationship between believing in profiling and the perceived accuracy of a criminal psychological profile. In their study, the researchers sampled three hundred and fifty-three participants to gauge the perception of belief.

The results of this study implied a strong positive correlation between belief and perceived accuracy. That is to say, the more an individual believes in criminal psychological profiling, the more likely he or she is to perceive a psychological profile to be accurate. The relationship was strongest in participants' perceptions of information contained in a profile concerning an unknown offender's past history and criminal behavior. The data showed that the more the participant believed in profiling, the more information relating to these two areas was likely to be perceived. However, this relationship was not seen when the same psychological profile included physical features of the offender (Kocsis and Middledorp, 2004).

In 2003, a study was published examining the effects of case material on the proficiency of profiling abilities. In this study, Kocsis, Heller, and Try used one hundred and twenty-two college science students as a sample, as this sample scored closest to professional profilers in previous studies. The researchers administered the survey used by Kocsis, et al. (2000) to each of the participants with different amounts of information. Participants either received a full case package, only narrative or visual case material, narrative material with a written description of the visual material, or no case material, only the type of crime committed as a control group.

The results of this study found that criminal psychological profiling proficiency is strongly influenced by the amount of case material available. The most accurate psychological profiles were created by those participants with all forms of case material available to them. Those participants with only narrative case materials also created more accurate psychological profiles than those with only visual case materials (Kocsis, Heller, and Try, 2003).

Kocsis and Hays (2004) conducted a study examining whether the identity of a criminal psychological profile's author influences a person's perception of the accuracy of the profile. A sample of fifty-nine police officers were given a profile and told that it was either created by a professional profiler or by an unspecified person. Each officer, or participant, was given a copy of the profile and a survey containing questions relating to the accuracy of the profile and evaluations of the content.

The results of this study indicated that police officers who were told that the psychological profile they were reading was penned by a professional profiler found more relationships between the profile and actual offender in the case being examined. However, the police officers' evaluations of the content of the profile, other than its accuracy, were not affected by the knowledge of the author (Kocsis and Hayes, 2004).

Kocsis and Heller (2004) conducted research investigating whether non-police officers exhibited a bias in their perceptions of the accuracy of profiles. The researchers also looked for a relationship between the degree of belief harbored by an individual concerning the

merits of psychological profiling and their perceptions of the profile.

In this study, the researchers used three different profiles from previously resolved homicide cases. These profiles were presented to three hundred and fifty-three college students who had no previous law enforcement experience. The students were asked to answer a survey containing questions regarding their bias toward or against profiling. However, there were three different sets of the first survey. One group received a cover page with a positive bias, one a neutral, or no bias, and the third group a negative bias against profiling. After this portion of the survey was completed, participants asked to answer survey questions about a criminal psychological profile that was distributed in two groups. Some participants were told that their survey was written by a professional profiler, the other group of participants was told that their profiles were written by ordinary people (Kocsis and Heller, 2004).

The results of this study indicated that those who received a positively spun cover page rated criminal psychological profiling as a much more useful tool to law

enforcement than those who received a neutral or negatively written cover page. When the researchers began to look at the results for the second part of the survey, they found an interesting trend. Instead of finding that the professional profiles scored highest, they found that those participants who were under the positive influence from the first section of the survey consistently scored their psychological profiles higher, regardless of who they were told wrote them. This indicated that an individual's view of criminal psychological profiling plays a stronger role in whether a psychological profile is taken seriously than was previously known (Kocsis and Heller, 2004).

Another question that has often come to light is what cognitive processes are necessary to create a strong, well thought out criminal psychological profile. Kocsis, Middeldorp, and Try (2005) compared the abilities of criminal profilers and non-profilers in exercises that measured profile accuracy and an individual's performance on memory tests and comprehension of case material. The exercises also tested the accuracy of psychological profiles that were created.

In this study four groups (professional profilers, non-profilers, and two control groups) received packets of information on one of two cases, either a murder case, or arson. In each packet was information pertaining to the case, the survey used in Kocsis et al. (2000), blank paper for each participant to compose a written profile of the offender in question, and a questionnaire regarding psychological profiling, the case, and the evidence included. Each participant was asked to complete all included materials and return them to the researchers (Kocsis, Middledorp, and Try, 2005).

The results of this study suggested that the profiler group outperformed both control groups and the non-profilers in both types of cases in terms of accuracy. Since the intention of this study was to interpret cognition as related to criminal psychological profiling, the final questions contained many relating to memory. The professional profilers showed much higher scores in relation to remembering important details both from the evidence and the written reports. This indicates that criminal psychological profilers must have strong cognition and memory skills. These findings also support

those of previous studies in showing the need for the use of logic and deduction skills to create a useful and accurate psychological profile (Kocsis, Middledorp, and Try, 2005).

Kocsis (2003) did research on the area of skills required for proficient criminal psychological profiling as well as the validity of psychological profiles. In this study, Kocsis (2003) took data from previous studies that had been conducted and did quantitative statistical analyses on them to see if the professional profilers had in fact made more accurate predictions than the other groups who had also been surveyed. The quantitative analyses of Kocsis' (2003) data implied that the criminal psychological profilers were more accurate as a whole than the other groups. However, each individual participant was not always more accurate uniformly across all measures studied.

The results of this study also suggested that investigative experience, though previously stated as the single most important part of a criminal psychological profilers training (Hazelwood et al, 1995), had an inverse relationship with accuracy of psychological profiles. The

less experience a participant had, the more accurate their psychological profile was likely to be (Kocsis, 2003).

The data from each of the studies analyzed in this research indicated that the single most important characteristic for a criminal psychological profiler to possess is critical thinking skills. According to Kocsis, (2003) each group of participants that excelled in the tasks required to create psychological profiles had all received training of some type that required them to have high levels of critical thinking and the ability to use logic.

The studies presented here indicate that there has been much controversy over the past several years about the validity of criminal psychological profiling. Some believe it is too subjective to be allowed into courtrooms. Others believe it is the only way to narrow down suspect lists and begin catching the rash of serial offenders in the world today.

However, there is a dearth of empirical research on this topic. According to Kocsis (2003) professional criminal psychological profilers are hesitant to participate in studies for different reasons; believing

their skills are being questioned or their field of research and expertise is being criticized. While many in the field of criminal justice believe that criminal psychological profiling is a useful tool, others are more hesitant to accept its practice; therefore making professional profilers more hesitant to participate in research studies, hence making it difficult for researchers to expand the knowledge base in this area.

In chapter three the author will discuss the methods used to collect data and samples for this study. The author will also discuss the methods used to analyze the data once they were collected.

CHAPTER 3

DEVELOPMENT AND IMPLEMENTATION OF RESEARCH

3.1 Methodology

Criminal psychological profiling is an investigative tool that has been recognized throughout the United States and in many parts of the world. However, research comparing the perceptions and knowledge of criminal psychological profiling among college students and law enforcement officers is very limited. Therefore, the purpose of this study is to address this lack for information in the academic field by examining the knowledge and perceptions of police officers and Criminology and Criminal Justice students on criminal psychological profiling.

In this chapter, the author will discuss how the data for this study was collected, analyzed, and evaluated. Specifically, the survey instrument in this study was created by the author to measure the knowledge and perceptions of college students and law enforcement officers using the academic literature presented in

Chapters 1 and 2 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 survey was conducted to discover possible differences in knowledge and perceptions of criminal psychological profiling between Irving Police Department law enforcement officers and students in the Criminology and Criminal Justice program at the University of Texas at Arlington (UTA) in the Summer semester of 2008. There has been very limited research in this area on this topic in the past, making this an exploratory study. In this type of study a survey is an accurate research method, as it was easily self-administered, and is strictly voluntary. All participants were able to fill out the information without feeling pressured to do so, and in an anonymous state. In the next section criteria for the participants of the survey sample, the survey, the sample size, the implementation of the survey, and the analysis of the survey questionnaire will be reviewed.

3.2 Sample and Sample Size

A quantitative cross-sectional, empirical approach was used to measure college students' and law enforcement officers' perceptions and knowledge of criminal psychological profiling. All participants in this survey were either sworn officers of the Irving Police Department or students in the Criminology and Criminal Justice Department at the University of Texas at Arlington. All sworn officers in the in the Investigation Unit at the Irving Police Department were eligible to participate in the survey. Likewise, every Criminology and Criminal Justice student at the University of Texas at Arlington was eligible to participate, as well. In this particular survey, 70 criminology and criminal justice students and 45 Irving police officers returned completed survey instruments. Thus making the total number of participants in this study 115 (N=115).

During the Summer 2008 semester, there were three graduate classes and sixteen undergraduate classes offered at the University of Texas at Arlington in the Criminology and Criminal Justice Department. This survey instrument was distributed in each of the graduate classes. The only

graduate courses excluded from the distribution of surveys were conference and thesis courses. Four undergraduate courses were chosen at random to participate in the survey, as well. In each class, the survey was administered to the participants, and they were given time during class to complete the survey by their professors. All participants were told to only complete the survey once, and therefore did not complete the survey if they had already done so in an earlier class.

A non-probability convenience sample was used for this study at the Irving Police Department. The participants were all sworn peace officers in the Investigation Unit employed by the City of Irving, Texas, from June of 2008 to July of 2008.

Cohen's Size Categories was used to determine the proper sample size needed for statistically accurate data in this study (Keppel, Saufley, and Tokunaga, 1992). This study was conducted on a strictly voluntary basis, meaning all participants could cease participation in the survey instrument at any time. As previously mentioned, 70 student and 45 police officer surveys were received, thus

bringing the total number of participants and completed surveys to 115 (N=115).

3.3 Survey Instrument

A twenty-seven question, self-administered survey instrument was created by the researcher to collect data pertaining to criminology and criminal justice students and law enforcement officers' perceptions and knowledge of criminal psychological profiling, as well as demographic data. The survey instrument was created by the researcher using the academic literature presented in Chapters 1 and 2.

A five point Likert scale was used on the first twenty questions of the survey. Participants were asked to respond on a scale of "1" to "5" where "1" represents "Agree Strongly" and "5" represents "Disagree Strongly". Levels "2", "3", and "4" were represented by "Agree", "Neutral", and "Disagree". The survey contained questions pertaining to both knowledge and perception evenly distributed throughout the survey instrument. The final seven questions pertained to demographic data, including age, gender, race, education level, and number of years served as a sworn police officer.

Previous to being distributed, all appropriate forms and the survey instrument were submitted to the IRB for evaluation and approval. A letter of authorization from Chief Larry Boyd of the Irving Police Department was obtained to meet IRB standards, as well as letters of approval from all participating professors at the University of Texas at Arlington. The researcher received full approval from the IRB and Office of Research Integrity and Compliance to perform the study. Please see Appendix A for a copy of the survey instrument.

3.4 Survey Implementation

The researcher received permission to execute the surveys by the Chief of Police of the Irving Police Department in the spring of 2008, and from the professors at the University of Texas at Arlington during the summer of 2008. The IRB sent their letter of approval granting the researcher access to distribute surveys in May of 2008, granting permission for surveying to begin immediately.

Surveys were distributed to investigators at the South Office of the Irving Police Department, as this is where the Investigation Unit is housed. Surveys were

distributed at the beginning and end of shifts. Surveys were distributed to all graduate level courses at UTA, excluding thesis and conference courses, and four undergraduate courses. All courses were in the Criminology and Criminal Justice department at the University of Texas at Arlington. A summary of courses selected to participate are shown in Table 1.

TABLE 1: SUMMER 2008 COURSES UTILIZED IN STUDY

Course Title	Level
CRCJ 5309 Research and Statistics in Criminal Justice	Graduate
CRCJ 5327 Judicial and Constitutional Processes	Graduate
CRCJ 5394 Topics in Justice Issues	Graduate
CRCJ 3385 Women and Crime	Undergraduate
CRCJ 3338 Juvenile Justice Systems	Undergraduate
CRCJ 4365 Capital Punishment	Undergraduate
CRCJ 3336 Police Management and Administration	Undergraduate

This survey instrument was available for completion during a time period between May of 2008 and July of 2008. On the front page of the survey instrument was a disclaimer stating that participation in the survey was strictly voluntary, and that participants could cease filling out the survey at any time during the process of

doing so and would not result in any penalty. The disclaimer also informed participants that their identities and responses would be kept confidential. Upon completion, all surveys were placed together in an envelope by the researcher to ensure anonymity.

3.5 Procedures of Analysis

To code and analyze the data, the researcher used Statistical Package for the Social Sciences (SPSS) 15.0. The survey items that were measured on a Likert scale were entered to reflect their respective values. The demographic data were assigned numerical values, as well, so they could be coded and analyzed, as well. All participants' responses were entered into SPSS, and frequencies were generated for each variable.

A t-test is a variance analysis that compares the means of two groups (Sweet and Grace-Martin, 2003). This type of test was determined to be the most appropriate way to determine if a statistical significance exists between law enforcement officers' and Criminology and Criminal Justice students' knowledge and perceptions of criminal psychological profiling. The main purpose for using statistical manipulation was to find any possible

differences between students' and peace officers' knowledge and perceptions.

In Chapter 4, the author will present the findings of the survey instrument as they are relevant to this study.

CHAPTER 4

RESEARCH FINDINGS

Criminal psychological profiling is an investigative tool that has been used in many different areas throughout North America, Europe, and Australia for several years. The investigative technique was developed in the United States, and other countries have since begun to develop their own versions and styles of this investigative method using the Federal Bureau of Investigation's original model. Each of these areas of the world has modified the technique to fit their own perceptions of what a criminal psychological profile should entail, and how it should be developed and utilized. The purpose of this study is to examine the knowledge and perceptions of police officers from police departments in North Texas and Criminology and Criminal Justice students at the University of Texas at Arlington on criminal psychological profiling.

As previously mentioned, for this study, the researcher used a survey instrument to collect data from police officers in Irving, Texas, and college students,

both graduate and undergraduate, at the University of Texas at Arlington on their perceptions and knowledge of criminal psychological profiling. The results of this research are presented in the following tables.

4.1 Demographic Information

TABLE 2: DEMOGRAPHIC INFORMATION

Variable	Percentage
Certified Peace Officer	
Yes	39
No	61
Number of Years in Law Enforcement	
0-5	8
6-10	2
11-15	6
16-20	10
21-25	9
26+	4
Abstained from Question	61
Age	
18-25	37
26-35	26
36-45	20
46-55	16
56-65	1
Gender	
Male	53
Female	47
Race	
Caucasian	56
African American	16
Hispanic	18
Asian	4
Other	4
Abstained from Question	2
Highest Level of Education	
High School	7
College	62

Table 2 - Continued

Graduate	24
Post-Graduate	7
Major	
CRCJ	66
Non-CRCJ	22
Abstained from Question	12

As shown in Table 2, the data collected from all participants that was related to demographic information. There were a total of 115 participants in the survey. Of these participants, 39% were certified peace officers, while 61% were not. Of the participants who were certified peace officers, 8% had served 0 to 5 years. 2% had served 6 to 10 years, 6% served 11 to 15 years, and 10% had served 16 to 20 years, making this the largest population group. There were also 9% who had served 21 to 25 years and 4% who had served over 26 years.

All participants ranged between the ages of 18 and 65. Of these, 37% were 18 to 25, 25% were 26 to 35, 20% were 36 to 45, 16% were 46 to 55, and 1% was 56 to 65 years of age. Males represented 53% of the participants surveyed, while females represented 47%. Participants were also asked to categorize their race based on the five listed criteria. Caucasians represented 56%, African

Americans 16%, Hispanics 18%, Asians 4%, and 4% of participants classified their race as other.

The researcher asked participants to indicate the highest level of education attended, giving them four options. Of participants surveyed, 7% indicated high school as their highest level of education attended, 61% indicated college, 24% indicated that they had pursued a graduate degree, while 7% of participants had pursued post-graduate degrees. Of the participants who had pursued higher education, 66% were Criminal Justice or Criminology majors, while 22% were not.

4.2 Perception Based Information

TABLE 3: PERCEPTION BASED QUESTIONS - SECTION 1

Variable	Officer Mean	Non-Officer Mean	P-Value
Law enforcement agencies rely heavily on profiling as an investigative tool when searching for a serial offender.	2.73	2.36	.001**
Criminal psychological profiling is a tool that should be used by federal agencies only.	4.29	3.74	.001**
Criminal psychological profiling is an effective tool in serial murder investigations.	2.16	2.20	.713
Criminal psychological profiling is an effective tool in catching serial rapists.	2.27	2.43	.165

Table 3 - Continued

Criminal psychological profiling is an effective tool for catching all serial criminals.	3.18	3.28	.486
Criminal psychological profiling is an effective tool for catching serial arsonists.	2.63	2.59	.714
Law enforcement officers should be required to be experienced in law enforcement before being allowed to apply for acceptance into the Behavioral Analysis Unit.	1.89	2.23	.013**
Local police agencies can benefit from criminal psychological profiling techniques.	2.05	2.10	.609
A college education is critical to the proper training and foundation of a criminal psychological profiler.	2.91	1.93	.000**

*statistically significant at .05

**statistically significant at .01

As it is evident from Table 3, the first question, "Law enforcement agencies rely heavily on profiling as an investigative tool when searching for a serial offender", had an officer mean of 2.73, while the mean of the non-officer's responses was 2.36. The difference in these two opinions was statistically significant with a P-value of .001**. Criminal psychological profiling is a tool that should be used by federal agencies only had an officer mean of 4.29 and a non-officer mean of 3.74, making the P-value statistically significant at .001**. Both of these

questions had results that showed to be statistically significant at the .01 level.

Criminal psychological profiling is an effective tool in serial murder investigations' officer mean was 2.16 with a non-officer mean of 2.20. The P-value was .713, which was not statistically significant. Criminal psychological profiling is an effective tool in catching serial rapists had an officer mean of 2.27 and a non-officer mean of 2.43, making the P-value .165. Criminal psychological profiling is an effective tool for catching all serial criminals showed an officer mean of 3.18 with a non-officer mean of 3.28, with a P-value of .486.

Criminal psychological profiling is an effective tool for catching serial arsonists had an officer mean of 2.63 and a non-officer mean of 2.59, making the P-value .714. Law enforcement officers should be required to be experienced in law enforcement before being allowed to apply for acceptance into the Behavioral Analysis Unit had an officer mean of 1.89 with a non-officer mean of 2.23. This made the P-value .013**, which is statistically significant at the .01 level.

Local police agencies can benefit from criminal psychological profiling techniques indicated a 2.05 officer mean, and a 2.10 non-officer mean, with a P-value of .609. A college education is critical to the proper training and foundation of a criminal psychological profiler had an officer mean of 2.91 with a non-officer mean of 1.93. This was statistically significant, as the P-value is .000*, which is statistically significant at the .01 level.

TABLE 4: PERCEPTION BASED QUESTIONS - SECTION 2

Variable	Officer Mean	Non-Officer Mean	P-Value
Criminal psychological profiling is appropriate in cases where there is no previous history of criminal activity.	2.89	2.93	.787
Law enforcement agencies use criminal psychological profiling less frequently than anticipated/expected.	2.43	2.91	.000**
Criminal psychological profiles are ineffective at lowering the number of serial murder cases open at any given time.	3.02	3.26	.048*
I have confidence in the abilities of criminal psychological profilers to help apprehend murderers.	2.60	2.60	.981
Criminal psychological profiling is an effective tool in searching for potential terrorists.	2.53	2.68	.293

Table 4 - Continued

Criminal psychological profilers have helped to further advance law enforcement agencies' ability to apprehend serial offenders.	2.29	2.15	.162
Criminal psychological profiling is an effective investigative tool that should be implemented in all police departments.	2.84	2.47	.012**
Using previous cases to create lists of possible characteristics of future offenders is an effective tool in psychological profiling.	2.36	2.18	.132
Criminal psychological profiling is an effective way to run an investigation.	3.09	2.75	.009**

*statistically significant at .05

**statistically significant at .01

As evidenced from Table 4, the first question of this section, "Criminal psychological profiling is appropriate in cases where there is no previous history of criminal activity", found an officer mean of 2.89 and a non-officer mean of 2.93. This yielded at P-value of .787. Law enforcement agencies use criminal psychological profiling less frequently than anticipated/expected had a 2.43 officer mean with a 2.91 non-officer mean. The P-value was statistically significant at the .01 value, as it was .000**.

Criminal psychological profiles are ineffective at lowering the number of serial murder cases open at any

given time had an officer mean of 3.02 and a non-officer mean of 3.26, with a P-value of .048*, which is statistically significant at the .05 level. I have confidence in the abilities of criminal psychological profilers to help apprehend murderers showed a 2.60 officer mean as well as a 2.60 non-officer mean, thus making the P-value .981.

Criminal psychological profiling is an effective tool in searching for potential terrorists had an officer mean of 2.53 with a non-officer mean of 2.68, making the P-value .293. Criminal psychological profilers have helped to further advance law enforcement agencies' ability to apprehend serial offenders showed a 2.29 officer mean with a 2.15 non-officer mean, the P-value was .162. Criminal psychological profiling is an effective investigative tool that should be implemented in all police departments had a 2.84 officer mean with a 2.47 non-officer mean. The P-value was .012**, making it statistically significant at the .01 level.

Using previous cases to create lists of possible characteristics of future offenders is an effective tool in psychological profiling showed an officer mean of 2.36

with a non-officer mean of 2.18, the P-value for this was .132. The final question in the perception based question section was, criminal psychological profiling is an effective way to run an investigation. This question had an officer mean of 3.09 with a non-officer mean of 2.75. The P-value was .009**, making it statistically significant at the .01 level.

4.3 Knowledge Based Information

TABLE 5: KNOWLEDGE BASED QUESTIONS

Variable	Percentage Agree	Percentage Disagree	Percentage Neutral
A criminal psychological profile can take several months to create.	43	17	38
Criminal psychological profiles consist exclusively of data that describes the offender who committed the crime, i.e. offender's age, race, socio-economic status, and gender.	30	41	26

Table 5 presents the results from data collected on the knowledge based questions on the survey instrument. The first question was: a criminal psychological profile can take several months to create; 43% of participants agreed with this statement, 17% disagreed, and 38% were neutral or did not know. The second question was criminal

psychological profiles consist exclusively of data that describes the offender who committed the crime, i.e. offender's age, race, socio-economic status, and gender; 30% of participants agreed with this statement, 41% disagreed, and 26% were either neutral or did not know.

In chapter 5, the author will focus on and discuss the meaning of these findings.

CHAPTER 5

CONCLUSIONS - WHAT DOES IT ALL MEAN?

Criminal psychological profiling is a topic that is recognizable to all persons involved in the Criminal Justice field. The purpose of this study was to examine the knowledge and perceptions of police officers and Criminology and Criminal Justice students on criminal psychological profiling. To do so, the researcher created and distributed a survey.

In Chapter 2, the author outlined previous research conducted on this topic relating to effectiveness and methodology. Likewise, the history, development, training practices, definitions, typologies, and uses for profiling were discussed, as well.

To obtain data for this study, a survey was distributed in three graduate classes and four undergraduate classes at the University of Texas at Arlington. The survey was likewise distributed at the Irving Police Department to the Investigative Unit. After all surveys were collected, the data were analyzed using

SPSS. T-tests were then used to compare the police officers' means to those of the students. Questions were asked relating to both knowledge and perception. The majority of questions that were statistically significant were at the 0.01 level.

5.1 Statistically Significant Perceptions

There were several questions that were statistically significant of the perception based questions. Law enforcement officers tended to disagree significantly with CRCJ students on the question of whether law enforcement agencies rely heavily on profiling as an investigative tool when searching for a serial offender. They disagreed on the matter of whether or not criminal psychological profiling should be used only by federal agencies. Their perceptions also differed on how much experience law enforcement officers should be required to have before applying for acceptance into the Behavioral Science Unit, and whether or not a college education is critical to the proper training and foundation of a criminal psychological profiler.

Other questions that were statistically significant were whether law enforcement agencies use criminal

psychological profiling less frequently than expected/anticipated and if it is an effective investigative tool that should be implemented in all police departments. Police officers and CRCJ students also had vastly different perceptions of whether or not criminal psychological profiling is an effective way to run an investigation.

The differences in these perceptions could come from a combination of factors. Police departments form a strong culture, and therefore have a strong influence on an individual's perceptions and beliefs (Harrison, 1998). It could be argued that this causes law enforcement officers to view criminal psychological profiling in a different light than CRCJ students.

The questions relating to running an investigation and using criminal psychological profiling had similar results. It could be concluded that this is derived from the fact that police departments emphasize different things than educational institutions. A police officer would view these questions from a viewpoint of experience, while a student would be more likely to view them from the vantage point of education.

Another set of results that were similar were those relating to education and experience. Officers may tend to value more experience, while students lean toward valuing education. These differences may become more distinct in police departments that do not require their officers to have a four-year degree prior to entering the police academy. It could be argued that the difference in these questions branches from emphasis put on experience versus education in some police departments.

5.2 Policy Recommendations

When you look at the differences in the perceptions of the police officers and the students who participated in this survey, it becomes evident that police departments and schools need to educate their officers and students on criminal psychological profiling. There has been a vast media frenzy around the subject, and television and movies have warped the public's perception and knowledge of the subject past recognition. Persons in the field of Criminology and Criminal Justice should be educated on the topic in order to better understand how it is implemented into an investigation, and the functionality it serves in apprehending an offender.

Police agencies could offer training on criminal psychological profiling to all officers in their agencies, emphasizing the involvement of those in the investigation units. A segment on the topic could likewise be integrated into the training academy for all incoming officers in order to better educate them and prepare them for the job the new officer is training to begin. The data from this research indicated that police officers tended to think education was less important in the field of criminal psychological profiling. However, if they were more informed on the subject, the officers would have a better understanding of why education is important.

Likewise, schools could include a course on criminal psychological profiling in their curriculum for Criminology and Criminal Justice programs. This would allow students to gain valuable knowledge on the topic before leaving college, and therefore being better prepared for their future careers. It would also allow them to be educated on the values of experience and what it brings to the field of criminal psychological profiling.

5.3 Agreeable Perceptions between Officers and Students

Law enforcement officers and students agreed in several areas addressed on the survey. They agreed that criminal psychological profiling is an effective tool in serial murder investigations, for catching serial rapists, for catching serial arsonists, and that local police agencies can benefit from criminal psychological profiling techniques. They agreed that it was a useful tool in searching for potential terrorists, and had confidence in the abilities of criminal psychological profilers to help apprehend murderers.

The similarities in these responses indicate that police officers and students both agree that criminal psychological profiling is a significant tool in the criminal justice field. They agree that it can be effective in its purpose and follow-through. The similarities in these responses from all participants could indicate that criminal psychological profiling could be implemented in more aspects and field offices in the North Texas area. If officers were trained on the basic techniques of criminal psychological profiling, it would allow local police departments to undertake these types of

investigations on their own. This would prevent the local departments from having to rely on help from outside agencies such as the FBI, saving time and lowering budget margins.

5.4 Knowledge

Of the persons surveyed, students and police officers, the majority showed some knowledge of the basic workings of a criminal psychological profile. The questions that were presented in the knowledge category all had correct responses in the 40th percentile. This could lead one to imply that a person gains some working knowledge of criminal psychological profiling from a basic knowledge of criminal justice. However, more in depth knowledge would be necessary to use the tool effectively.

5.5 Contribution to the Body of Knowledge

It is anticipated that this study will add to the current body of knowledge on criminal psychological profiling greatly. No research was found that had been conducted in North Texas which compared law enforcement officers' perceptions and knowledge to those of university students' on the subject of criminal psychological profiling.

5.6 Limitations of the Research

The author acknowledges the limitations of the research presented in this study. All graduate classes, excluding thesis and conference courses, were included, and four undergraduate courses were randomly selected to complete the survey. The population of police officers that were surveyed was a convenience sample, as opposed to a random sample. All participants in the survey from the police department and the university were in the state of Texas.

Another limitation in this study is that of law enforcement training. All participants were asked to disclose whether they were certified police officers. If students from the University of Texas at Arlington had police training, that status superseded their student status, and therefore qualified them as a police officer. Therefore, it cannot be concluded that all police officers in this study were employed by the Irving Police Department.

The author recognizes the exploratory nature of this study, and therefore realizes that the University of Texas at Arlington CRCJ Department and the Irving Police

Department may not have the same perceptions as the general population of the university or other police agencies. Therefore, it may not be possible to generalize the data from this study.

5.7 Future Research Suggestions

Future research could include the different perceptions of criminal psychological profiling at different levels of law enforcement. The researcher could compare the difference in perception and knowledge at the local, state, and federal level, and compare how policies can be updated to enable lower level law enforcement agencies to implement some of the criminal psychological profiling techniques to apprehend offenders.

Criminology and Criminal Justice students are the future of the Criminal Justice system, for both the research and the practical sides of the field. These students will learn from the law enforcement officers who are already working there. More research needs to be conducted on the knowledge and perceptions of students and law enforcement officers on the topic of criminal psychological profiling as this investigative technique is

spreading throughout the world. The students of today will need it in the world of tomorrow.

APPENDIX A

SURVEY INSTRUMENT

Survey of Police Officers' and Students' Knowledge of Criminal Psychological Profiling

The purpose of this survey is to assess student's and police officer's knowledge of criminal psychological profiling. You should know that your participation in this survey is completely voluntary. No questions on this survey will enable the researchers to directly identify you. You may choose not to answer any questions or choose not to participate in the survey without consequence. This survey should take approximately 20 minutes to complete. When you have completed the survey, please return it to me. Thank you for agreeing to be part of this important research project.

Instructions for Completing the Survey

Please answer each question by circling the appropriate number relating to your agreement with the statement presented.

Please complete the survey during class/shift time and return it to you professor/commanding officer.

Criminal Psychological Profiling

1) Law enforcement agencies rely heavily on profiling as an investigative tool when searching for a serial offender.

Agree Strongly

Disagree Strongly

1

2

3

4

5

2) Criminal psychological profiling is a tool that should be used by federal agencies only.

Agree Strongly

Disagree Strongly

1

2

3

4

5

3) Criminal psychological profiling is an effective tool in serial murder investigations.

Agree Strongly

Disagree Strongly

1

2

3

4

5

4) Criminal psychological profiling is an effective tool for catching serial rapists.

Agree Strongly

Disagree Strongly

1 2 3 4 5

5) Criminal psychological profiling is an effective tool for catching all serial criminals.

Agree Strongly

Disagree Strongly

1 2 3 4 5

6) Criminal psychological profiling is an effective tool for catching serial arsonists.

Agree Strongly

Disagree Strongly

1 2 3 4 5

7) Law enforcement officers should be required to be experienced law enforcement before being allowed to apply for acceptance into the Behavioral Analysis Unit.

Agree Strongly

Disagree Strongly

1 2 3 4 5

20)Criminal psychological profiling is an effective way
to run an investigation.

Agree Strongly

Disagree Strongly

1

2

3

4

5

21)Are you a certified peace officer?

Yes

No

22)If yes, how many years have you worked in law
enforcement?

23)Age:

18-25

26-35

36-45

46-55

56-65

66+

24)Gender:

Male

Female

25)Race:

Caucasian

African American

Hispanic

Asian

Other

26) Education:

High School College Graduate Post-Graduate

27) What is your major?

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BIOGRAPHICAL INFORMATION

Bonnie Bevers was born June 17, 1982, in Odessa, Texas. She graduated from McMurry University in Abilene, Texas, in May of 2004, with a Bachelor of Arts in Psychology. While attending McMurry University, Bonnie had the opportunity to study terrorism at the University College Cork, in Cork, Ireland. Bonnie earned her Master of Arts degree in Criminology and Criminal Justice from the University of Texas at Arlington in August of 2008. Criminal psychological profiling has been a topic that interested her for many years, and is one that she hopes to continue researching in the future. She plans to continue researching other topics important to criminology and criminal justice while working in the field.