NON-FAMILIAL ABDUCTIONS THAT END IN HOMICIDE: AN ANALYSIS OF THE DISTANCE PATTERNS AND DISPOSAL SITES

by

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ABSTRACT

When a person is abducted and the suspect is someone other than a family member, it is a difficult for police to decide where to look for the victim. To date, there has been little research conducted on how offenders select murder and disposal sites, and how far they travel to get to these areas. Past research pertains only to the United States and United Kingdom. Thus, investigators have little knowledge regarding relevant distance relationships in Canada, and how offenders chose the locations to dump victims. This thesis includes a review of previous research in this field, as well as a discussion of the strengths and weaknesses. As stranger homicides are infrequent crimes, all Canadian and Washington State cases were included. Using data from Violent Crimes Linkage Analysis system (ViCLAS) and Homicide Investigative Tracking System (HITS), this research examined victim and offender demographics, temporal and spatial factors, the disposal site, and the distances involved in the crime. The distances analyzed were between the offender and victim's residence, point of initial contact, murder scene and disposal site. Many distinctive patterns emerged, relating to the age of the victim and offender, the time of day at which victims were abducted, the length of time it took to locate the body, the type of areas from which victims were taken and to which they were relocated. Other patterns were also found in distances travelled between crimes in small populations as opposed to larger populations, and between crimes committed by serial and single offenders. Some of the limitations and weaknesses of this research are discussed as well as how future research can augment the knowledge of non-familial abductions that end in homicide.

DEDICATION

I would like to dedicate this thesis to my friends and family. You have been incredibly supportive and giving over the years, and for that I can never thank you enough.

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CHAPTER ONE: INTRODUCTON

When a person disappears and foul play is suspected, the main focus of the investigation revolves around finding the victim. Although the aim is to find the victim alive, in many cases this cannot be achieved. Nevertheless, it is still of vital importance to find the victim's body in order to help the victim's family find closure. Recovery of the body, the location of dump scene and obtaining supporting evidence all contribute to reaching a successful conclusion in a murder investigation. At the present time, there are little empirical data on how offenders select where they will dispose of a body, as well as information to assist police in where they should focus their investigation. In any investigation, time is of the essence as the longer it takes to locate evidence and the victim the less likely it is that the police will find him or her alive and/or be able to solve the case.

It is hypothesized in this thesis that the offender will dispose of the victim in an area that is familiar to them. In other words, they will dispose of the victim within their awareness space. Awareness space is the area with which an individual has become familiar over their lifetime and has been incorporated into their memory. The awareness space in criminal activity is the area in which the offender is committing his or her crimes. The Brantingham's crime site selection model (Brantingham & Brantingham, 1994), along with rational choice theory, will be examined and critiqued regarding how these theories can be applied to abduction investigations and the offender's search for disposal sites. Their theories have helped advance geographic profiling which can be

used to help police focus on the areas with the highest probability of recovering the body. These concepts will be examined in greater detail in the second chapter of this thesis.

The object of this thesis is to integrate past research, geographic profiling and some of its underlying theories, such as crime site selection and Cornish and Clarke's rational choice theory, to provide a more accurate method of finding body disposal sites. Past research conducted by Nethery (2002) looks at the risk factors in non-familial child sexual assault. This includes a look at where the children (ages 0-12) first came into contact with the offender and where the contact ended. In the 2002 study it was found that children have the highest risk of coming into contact with the offender in recreation facilities (swimming pools), their homes and schools (Nethery, 2002: 49-51). One of the questions in this present study is whether or not these locations are also prominent in non-familial homicides. As well, it is found that the area in which the sexual assault occurred and end contact point (where the victim and offender contact ended) is often in isolated and secluded areas (Nethery, 2002: 54). This study is conducted to see whether this is also the case in homicides. Most offenders do not escalate their level of violence as they continue to offend however offenders who commit sexual assaults and homicides seem to escalate the level of violence as each crime passes. This idea is based on previous research on non-familial child sexual assault where the offenders started with less violent offences such as theft and driving under the influence, then started to commit sexual assaults which became more and more violent over time. In fact, a couple of the offenders ended up killing victims in the end (Nethery, 2002: 58-59). Although the offender's records in this study were not examined, based on the knowledge of some of the offender's criminal history, it is theorized that offenders in this study also raised their

level of violence over time. Thus, it would be a significant finding to determine whether the areas are the same for both sexual assault alone and sexual assault and homicide (Nethery, 2002: 58-59). Based on this, it is hypothesized that there would be a trend in areas the offenders choose to find and assault their victims. As such looking at geographic profiling and some of its underlying theories will assist investigators in conducting a more well-rounded investigation.

The first chapter of this thesis discusses why it is so important to conduct this study, and the benefits of the research to both the public and law enforcement officers. Criminal and geographic profilers are an extremely useful resource in abduction and homicide investigations because they can provide an educated opinion as to the behavioural and physical attributes of the offender and where the offender is likely to be located (Filer, 2001). This study is being conducted under the direction of a geographical profiler, so an overview of criminal and geographic profiling is provided. This chapter will also address the factors to be examined in this research project, Violent Crimes Linkage Analysis System (ViCLAS) and Homicide Investigative Tracking System (HITS), and will define the terms used throughout the course of this thesis. It should be noted that the definition of abduction in this thesis is not a legal definition. In Canada, the legal definition of abduction applies only to children age 16 and under (Canadian Criminal Code, 2004). As this thesis includes victims above this age, abduction is defined as removing the victim (at any age) from one location to another without their consent. This will be discussed in more detail later in this chapter.

Chapter Two will examine previous literature on this topic, although there are minimal amounts of research in this area. The few studies that have been completed are

in the United States and the United Kingdom, so there will be a discussion of their strengths, weaknesses, and applicability to Canadian investigations. This chapter will also include a review of the current investigative model used by police, and why this research can improve the way investigations are conducted.

Chapter Three will describe methods used to conduct this study; including case selection and the instruments used to collect the data. Finally, Chapter Four will look at the results of this study and Chapter Five will discuss the conclusions that can be drawn from them. In the final chapter there will be a discussion of the implications of these results as well, it will provide insight into additional research that should be conducted to increase the robustness of this field.

Benefits to Behavioural Sciences and Law Enforcement

When an abduction victim disappears, time is vitally important. In most cases, the victim is murdered within the first three hours of the abduction, leaving little time to find the victim alive (Rossmo, 2000: 32). In fact, it was discovered that in 68 percent of cases, the victim was already dead by the time they were reported missing to the police (Rossmo, 2000: 32). Thus, in most cases the police are searching for a body and any evidence that may link the crime scene to the offender. As evidence is known to deteriorate quickly in open environments it is important for police to locate these areas as soon as possible.

One of the main objectives of this research is to look at the distances involved in the crime. By examining how far the body is moved from the victim's residence or encounter location, it is hoped these data will provide some insight for investigators in

narrowing down the search area. Another factor being examined is how the offender is familiar with the disposal site. If investigators are able to focus on the types of areas where the victims are located, it may assist with reducing search time. This thesis is intended to provide law enforcement officers with objective data regarding relevant distance relationships which is intended to decrease the subjective element of the investigation.

Criminal and Geographic Profiling

One method of gaining an increased perspective of a crime or series of crimes is by conducting a criminal and/or geographic profile. Geographic profiling is "an information management strategy for serial violent crime investigation that analyzes crime site information to determine the most probable area of offender residence" (Rossmo, 2000: 259). Geographic and criminal profiling have a long history of helping investigators solve crimes. In the late 1400's, when the Catholic Church was seeking to identify individuals whom they believed were involved in sorcery and witchcraft, it was noted that profiling techniques were utilized to classify groups of individuals who were thought to be high risk (Woodworth & Porter, 1999: 243). During the investigation of one of the world's most notorious serial killers, Jack the Ripper, a form of criminal profiling was used in hopes of gaining a more in-depth insight into the offender's psychological make-up, with the idea that this would lead to identifying the killer (Woodworth & Porter, 1999: 244). Although neither of the above examples demonstrates a well-established profiling technique, in that the principles which were applied were not always consistent or scientifically formulated, it does show the beginnings of a crime

investigative tool that would eventually become one of the most innovative techniques in criminal investigations. In cases of serial murder, sexual offences, and arson, the list of suspects can often be overwhelming. In 1972, the Federal Bureau of Investigation (FBI) responded to this problem by introducing the first criminal profiling unit, which would help identify what the offender's personality characteristics are in order to narrow down the list of suspects (Woodworth & Porter, 1999: 245). Profiling has had a long history in criminal investigations and throughout time it has changed and developed into a well-refined technique that can be extremely useful to an investigator in certain types of cases.

In some criminal investigations, the criminal and geographic profiling methodologies complement each other. The main function of a criminal profiler is to provide law enforcement officers with an analysis of an offender's behaviour and personality type (Holmes & Holmes, 1996: 158). In order to do this, the criminal profiler examines the crime scene, victimology, photographs, forensic evidence and police reports (Filer, 2001). Through these observations, the criminal profiler will offer an opinion about the offender's patterns regarding both the crime and the offender's personal habits.

The role of the geographic profiler is to help investigators determine where they should look for the offender. A geographic profiler will examine the offender's behaviour, hunting methodology, travel routes, land usage, demographics, temporal and spatial data, and mental and physical barriers (Rossmo, 2000: 1-3; Filer, 2001). The geographic profiler will look at a series of crimes that are linked to the same offender in the hope of highlighting any commonalities (Rossmo, 2000: 1). By analyzing the crime sites, the profiler can determine a "hot spot," where the offender has the highest probability of being located. This is the area that statistically should contain the

offender's anchor point. The anchor point is "the base from which an individual operates; usually the single most important location in a person's life" (Rossmo, 2000: 255). In most cases this is the offender's residence (Rossmo, 2000: 91). The profiler's report will provide a narrative explanation and maps designed to assist the investigators in the search for the unknown offender. Therefore, the behavioural profiler helps to determine the type of offender that the investigator should be looking for and the geographic profiler provides assistance on where to look for this type of person.

An important part of profiling that can be utilized in abduction and murder investigations is whether or not the offender/crime scene displays organized or disorganized patterns of behaviour. Although this thesis does not address whether the crimes are organized or disorganized, it does examine factors such as whether the disposal sites are pre-planned or convenient. It is noted that an organized offender will carry out their act in a very controlled and calculated manner (Woodworth & Porter, 1999: 247). There is likely to be less evidence left behind and fewer signs of a struggle between the offender and the victim. The murder committed by the organized offender will often be a re-enactment of the offender's fantasy, the disposal site being one of the most important aspects of this fantasy (Burton, 1998: 10). It is also thought that organized offenders will use transportation to move their victims and will have calculated what the best area is to dispose of the body (Ressler & Shachtman, 1992: 118). Thus, it can be hypothesized that before the offender commits the crime, he knows exactly how he wants to commit the abduction, murder the victim, and dispose of the body.

The disorganized offender's crime scene will often exhibit signs of frenzied, uncontrolled and spontaneous behaviour (Woodworth & Porter, 1999:247). Therefore, it

is reasonable to assume that the offender has not decided where to dispose of the body. It should be noted that in many cases, a disorganized offender does not move the body, but when the body is moved it is likely the offender will choose a location familiar to them.

As previously mentioned, it is hypothesized for both the organized and disorganized offender that the disposal site will be within their awareness space. For the organized offender, because the disposal site has been pre-decided, it is more likely to be in an area that is farther from the original crime scene or in an area where the body is more concealed. For the disorganized offender, the disposal of the body is more likely to be in an area that is close by and well known to them. Therefore, being able to determine the type of offender that committed the abduction will be useful to the investigators for a number of reasons. First, it will aid in narrowing down the list of suspects. Subsequently, it will help them cut down the locations that they should be looking at in order to find the victim. As previously mentioned, the faster they are able to do this the more likely they are to find a live victim and if not this, being able to solve the crime.

Profiling has become one of the more popular crime techniques to be utilized over the past few years. Despite this, not all individuals believe that it is a well-tested or valuable technique. Canter and Alison (1999: 242) claim that there has been little attention paid to measuring the accuracy of profiling techniques. They feel there is no scientific support to show that a profiler's opinions are more then just an educated guess. While analyzing geographic profiling, Canter claims that the key mistake is assuming that the offender anchor point is a fixed location (1994: 98). Canter (1994: 103) feels that it is important to distinguish between the commuter, person who travels away from his anchor point, and non-commuter, offender operates out of his anchor point, because to

ignore this idea would result in inaccurate profiles of where the offender is located. The geographic model claims that an offender will not commit crimes within a certain distance from his residence in order to minimize the likelihood of discovery, otherwise known as the buffer zone (Canter, 1994:100). Canter disagrees with this theory because he feels that some offenders will commit crimes in or near their residence (Canter, 1994: 100). Buffer zone will be explained in more detail in Chapter Two. Despite these critiques it is felt that geographic profiling techniques are the best and most accurate techniques to use in this study. In addition, many researchers have proven that geographic profiling and its underlying theories are accurate. This will be discussed in detail throughout this thesis.

Factors to be Addressed

As stated earlier, the objective of this study is to look at the variables and dynamics related to the perpetrator's choice of body disposal site. This research only considered cases of abduction that end in homicide where the victim was moved from the point of initial contact to the murder and disposal site. Homicides included are male and female children (age 1-12), female young adults (13-17), and female adults (18+). Although male adults have higher rates of abduction than female adults, only female victims are included in this study. Many males are abducted and murdered as a result of gang or drug related issues (Port, 2004). In gang and drug related murders the offender is forced to go to certain areas to locate the victim. In this study it is important that the offender had the element of choice as to the area he goes to find the victim. For these reasons, male adult victims are excluded.

As this study focuses on non-familial abductions, the offender has to be a stranger, acquaintance or friend to the victim. This study provides an examination of the demographic factors of both the victim and the offender. As well, there is an analysis of the type of area where the victim is initially contacted, murdered and disposed. There is an analysis of how the offender is familiar with the disposal site and if it is pre-planned or convenient. How the victim is moved, when they are moved, and whether they are sexually assaulted, is also examined. This thesis also includes an analysis of time intervals, such as an estimate of how long the victim is with the offender before being murdered and how long before the body is located. Offenders frequently dispose of a victim's body at a different location then the initial contact point or murder scene. One of the most important factors to be addressed is the distances involved. The distances that will be examined are as follows:

1. Victim's residence to point of initial contact.
2. Victim's residence to offender residence.
3. Victim's residence to murder site.
4. Victim's residence to disposal site.
5. Offender's residence to point of initial contact.
6. Offender's residence to murder site.
7. Offender's residence to disposal site.
8. Point of initial contact site to murder site.
9. Point of initial contact site to disposal site.
10. Murder site to disposal site.

The systems used to obtain this information for the Canadian cases is the Violent Crimes Linkage Analysis System (ViCLAS) and for Washington state, Homicide Investigations Tracking System (HITS).

Violent Crimes Linkage Analysis System (ViCLAS)

One set of data used in this study was extracted from ViCLAS. This database contains cases involving solved and unsolved homicides, attempted homicides, unidentified bodies where homicide was suspected, solved and unsolved predatory sexual assaults, missing persons in which foul play is suspected and, all non-parental abduction and attempted abductions across Canada (Johnson, 1994: 10). ViCLAS provided 42 cases to be included in this research, which took place in Canada from 1974 to 2003.

ViCLAS is a system that facilitates the comparison of cases to see whether there are any common links (Johnson, 1994: 9). A query would include criteria such as age, race, gender, and modus operandi in order to determine whether the case being analyzed matches or is very similar to any other cases in the database (Johnson, 1994: 10; Filer, 2001). Once a ViCLAS specialist has established whether there are any links to other crimes, a report will be sent to investigators, which identifies the other potential linkages in the series (Filer, 2001). The variety and quality of information contained in the ViCLAS database makes it a very efficient and effective tool from which to extract research data.

Homicide Investigative Tracking System (HITS)

The second data source for the research project was HITS. The offences included in this database are homicides, sexual assaults, child luring, stalking, sex offender registration, child pornography, identity theft, and suspicious circumstances (i.e. bloody clothing found, children approached at school, missing persons, etc.) (Moran, 2002: 2). From the information received from HITS, eight cases were included in this research study which took place between 1988 and 1995.

Similar to ViCLAS, HITS is designed to link offenders to crimes. Criminals will not limit their criminal activities to one jurisdiction, so it is of the utmost importance to have a database that can link similar crime patterns to offenders. Although the two databases have some variation in the type of crimes and information included, it is felt that they share enough commonalities to include data from both sources for the purposes of this project.

Definition of Terms

The definition of abduction is for an offender to take a victim away by force (Artin et al., 1964:19). This means that any cases included in this study involved moving the victim from the place where they initially came into contact with the offender, to a new location(s). In some cases abduction means forcibly taking the victim with them to a new area and in other cases the victim was lured to a new location. For the purposes of this study both are considered abductions. As previously mentioned, this is not a legal definition. As this study looks at abductions that end in homicide it is important to understand the usage of the term homicide in this thesis.

Homicide and murder will be used interchangeably in this study. The dictionary defines homicide as the unlawful taking of another human beings life (Merriam-Webster, 1964: 338). According to the criminal code homicide is committed when"...directly or indirectly, by any means, to cause the death of a human being" (Canadian Criminal Code, 2002: 383). The definition of homicide in this study will be the combination of the above two definitions, meaning the unlawful taking of another human beings life, whether directly or indirectly, by any means.

For the purposes of this study, victims were divided into three categories: female and male children, female and male young adults and female adults. Children were only considered to be a child if under the age of 12. This age was chosen due to the change in physical and behavioural dynamics when the child is over the age of 12. The physical appearance and sexual characteristics of a person over the age of 12 begins to resemble that of an adult. Also, the demeanour and independence of the child tends to shift as mobility and personal freedom begin to be practiced more frequently. Previous research provides confirmation that the selection of a victim over the age of 12 probably differs from that of a victim under 12 due to the change in dynamics (De Young 1982: 97-98). Based on research of child sexual predators it has been established that the most common are referred to as preferential offenders (Holmes & Holmes 1996: 139). It has been determined that the preferential offender selects children, because the attraction is in the fact that the victims are children (Holmes & Holmes 1996: 139).

Young adult victims are between the ages of 13-17. This category is included because these individuals are no longer children, and victim selection may not be based on their age. Since these victims have more limited mobility and self-responsibility than

adults, as most are still in school and living at home, it is felt they should be a separate category. The age is cut off at 17 because, in Canada, once a person turns 18 they are legally considered to be an adult. As well, when a person is 18 they are probably not in school anymore and may have moved away from home, making their vulnerability and target selection different.

For the majority of the cases the offender is a complete stranger. This study focused on non-familial relationships, thus in a few cases the offender was an acquaintance or friend. These cases are included because preferential offenders are known to use tactics that involve befriending a child prior to killing them (Lanning 1992: 19). Familial attacks are excluded from this study because there are different factors involved in these versus non-familial attacks. For example, offender access to the victim will differ when examining spatial and temporal risk factors. Depending on the victim, different locations are selected to commit the crime.

As the victim is often moved to different locations during the crime, it is important to distinguish between the types of areas to be examined in this study. Point of initial contact refers to the first place the victim came into contact with the offender on the day of the crime. Murder site is the place where the offender took the victim's life. The disposal site is the last location where the victim's body is left, and is specified as such because an offender may return to the crime scene and moves the body from the original disposal site.

Finally, as one of the factors to be addressed in this study is whether or not the victim is sexually assaulted, a definition of sexual assault is provided. Sexual assault is

the violation of the victim's sexual integrity. This includes sexual touching, anal or vaginal intercourse, digital penetration and fellatio.

Before reviewing the methodologies and results of this study, a summary of current related research in this field is presented. This research provides some of the rationale for the variables, definitions, methodologies, and modes of analysis used in the current study. As well, it illustrates how the uniqueness between specific crimes and the type of offenders who commits them requires that geographic profiling be carefully tailored to suit the crime being studied, and that a universal approach to applying profiling techniques is not possible.

CHAPTER TWO: LITERATURE REVIEW

This purpose of this chapter is to examine the research that has been conducted on non-familial abductions that end in homicide. Most of the research in this field has taken place in the United Kingdom and the United States. These studies have addressed the distance between the offender and victim's residence, how far the offender travels to select a victim, the distance to the disposal site, and whether the body was buried or left in the open. The results of these studies indicate that offenders prefer to commit crimes in areas close to their residence, however they also show awareness that if their crimes are committed to close to their anchor point that this will increase the likelihood of them being apprehended. By discussing the Brantingham's Crime Site Selection Model and Cornish and Clarke's rational choice theory will illustrate why offenders choose to operate within a close proximity to their residence. As discussed in the previous chapter, people feel the most comfortable when they are in areas that they are familiar with; this is otherwise known as their awareness space. There have been many research studies that have focused on whether an offender commits crimes within their awareness space. For the most part, the research has been on crimes such as arson, robbery, theft and rape. This analysis of the previous research will show why the concept of awareness space is also applicable to non-familial abductions that end in homicide. In this chapter it will be shown how knowing an offender's awareness space can assist an investigator. However, awareness space is most applicable after initial investigative procedures have helped narrow the search for the perpetrator to specific areas or ideally specific individuals.

Throughout this chapter there will be a discussion of the previous research strengths and weaknesses and why it is necessary to conduct additional research in this field. For example, most of the research in this area has focused on child homicides, which illustrates the need for research to also be carried out on adult abductions that end in homicide. This chapter will also include an examination of the current model of investigation that is being used in Canada, including two cases in British Columbia that illustrate the need for research into more accurate methods of locating the victim of abduction. Through this analysis it will be shown how this research will benefit future criminal investigations.

Previous Research

To date, most homicide research has focused on how the offender and victim are related (Flewelling & Williams, 1999: 99). However, it is also important to research other areas in this field such as the offender's behaviour prior to the attack, how the offender chooses the disposal sites, and the distances travelled. There has been some research conducted on how far the offender will travel to dispose of the body and whether he is likely to conceal or leave the body in the open. Despite the fact that there is information on how far the offender travels, there is no information on the types of areas the offender will take the victim. This is problematic because it does not allow for investigators to develop a better sense of what areas should be searched when looking for the victim. The less information an investigator has to work with, the less likely it is that they will find the victim. In fact, the body is almost always required if investigators hope to solve the case. Fox and Levin (1999:166) found that serial killers tend to take extended measures to ensure that the body is not discovered. Although most of the

victims in this study were not killed by serial killers, it is important to keep in mind that most offenders will not want the body to be discovered and will take the steps needed to hide the body. Any information that would help investigators narrow down potential disposal sites would increase the chances of finding the victim alive and in situations where the victim is already dead it is important to be able to find the disposal site in order to solve the current investigation and locate future victims more quickly.

Distance Decay and the Buffer Zone

Distance Decay is a concept that addresses the idea of offenders operating in areas that are close to their home (Rengert, Piquero, & Jones, 1999: 427). Distance Decay is referring to the notion that as the distance increases from the offender's residence, the less likely the offender will commit crimes (Rengert, Piquero, & Jones, 1999: 427). Distance decay occurs in every type of crime, however that distance is affected by the crime type (Brantingham & Brantingham, 1984: 346). Distance decay is measured from the offender's residence to each crime site (Rossmo, 2000: 258). The accuracy of the distance between the offender's residence and crime site being a representation of the actual distance travelled by the offender has been questioned in some research studies.

Despite the fact that most offenders operate close to home, there are areas that are not targeted which are known as buffer zones. The buffer zone is "an area centred around the criminal's residence within which targets are viewed as less desirable because of the perceived risk associated with operating too close to home" (Rossmo, 2000: 256). A buffer zone exists in part because as the distance increases from the home, so does the availability of targets, and most offenders feel they are less likely to be caught if the victim is selected a distance from the home (Rossmo, 2000: 121). This is balanced

against the principle that offenders want to expel as little energy as possible needed to commit crimes (Gottfredson & Hirschi, 1990: 92). It can be concluded that the majority of offenders will travel shorter distances to commit crimes and to make it simple, will stick to familiar areas without too closely associating the area with their anchor point.

The Distances Travelled

A database in England called C.A.T.CH.E.M is one of the few that allows for a detailed look into statistics involving abducted children that end in homicides. The database goes into many details about determining why the victim may have disappeared, as it is the key to determining whether the individual is a run-away or a victim of abduction (Burton, 1998: 1). However, the current study will focus solely on abduction cases, so there will be no discussion on how to distinguish a runaway from abduction. It is important for investigative purposes to distinguish between abduction and a runaway, but other bodies of literature exist on how to differentiate between the two. Before going into the current model of investigation used in Canada, first there will be an analysis of the statistics surrounding such cases.

Research conducted by C.A.T.CH.E.M. found that in 98 percent of the cases where a vehicle was not used during the commission of the crime, the child was found within 46 meters of the footpath used to dispose of the child and all were found within 91.4 meters (Rossmo, 2000: 31). In addition, without the use of a vehicle to conceal the child, the offender will not want to travel as far with the victim before they dispose of them. This is further supported by the statistics that show that only 5 percent of bodies are buried, 17 percent are found in the water and less then half are concealed (Rossmo, 2000:31). In cases where a vehicle was used, it was noted that 88 percent of victims were

found within 45.7 meters and 97 percent were located within 91.4 meters of the road used to dispose of the victim. When using a vehicle, 57 percent were concealed, 97 percent were outdoors, 12 percent buried and 20 percent of victims were discovered in water (Rossmo, 2000:31). A study on abducted and murdered children found that 74 percent of victims were left outdoors of which most were left uncovered on the ground (Cloud, 1996: 66). However, this study included children who were abducted by family and non-family members. This shows that when a vehicle is used, it allows the offender more time to dispose of the victim in a manner that will increase the time before the body is discovered, thus decreasing the chance of being identified as the perpetrator. Therefore, it is important to quickly discover whether a vehicle has been used in an abduction case, as it will help to narrow down the search field. This research also shows that looking in the area close to the travel route chosen by the offender is the most probable area in which the victim is going to be found.

Research conducted in the United States by Hanfland, Keppel and Weiss supports the above findings (Rossmo, 2000: 32). They found that victims were most often taken in areas close to the victim's home and moved to rural areas where they would be murdered and then disposed of in a relatively close location (Rossmo, 2000: 32). A study by MacDonald (1961: 13) supported these findings as it was found that 70 percent of victims lived within 3.2 km of the offender's residence, and 32.8 percent lived on the same block. It should be noted that the MacDonald study did not specify whether familial homicides were included, so one needs to be cautious when comparing these findings to the present research. In most cases, the offender routinely frequented the area where they abducted the child, and 29 percent lived in the neighbourhood (Rossmo,

2000: 33). Over half of the victims were found within 2.4 km of the victim's residence, 33 percent were found within 60.9 meters of the encounter site, and 47 percent were found within a 0.4 km of the encounter site, which was usually near the victim's residence (Rossmo, 2000: 32). All of this shows that if investigators are able to determine where the last encounter site was, and who the victim was last seen with, they are more likely to identify the offender and areas where they should look for the victim. In cases were the encounter site was known, there was a greater chance of the crime being solved (Rossmo, 2000: 32). However, in cases were it was unknown, the chances of solving the crime was more than 40 percent below the mean average of total solved cases (Rossmo, 2000: 32). This research shows the distances where the child and offender are likely to be found; however, determining what places should be searched remains problematic. Rationale for how to narrow down search areas will be discussed in more detail later in the paper.

Godwin and Canter (1997: 27) looked at the spatial behaviour of 54 male serial killers in the United States. It included a look at the body dump sites and place of first encounter. These crimes sites were looked at in a program called smallest space analysis, which is designed to "...find the best fit between ranks of the association coefficients and the ranks of the distances in geometric space" (Godwin & Canter, 1997: 29). There were three hypotheses in this study. Firstly, the body will be a focal point (offender's home base) for selecting victims and disposing of the body. Secondly, the distances for body disposal and victim targeting will be different. Thirdly, the distance travelled to dispose of the victim will change as time passes but the selection sites will not change (Godwin & Canter, 1997: 27). Results showed that, on average, offenders selected their victims

closer to home, at 2.3 km, and disposal sites farther away at 23 km (Godwin & Canter, 1997: 31). Godwin and Canter believed that this shows that the buffer zone may only play a role in the disposal sites of the victims and not victim selection (1997: 31). The only time that the offender was found to dispose of the victim closer to home was after the ninth or tenth offence (Godwin & Canter, 1997: 35). It is believed that these results affect the efficiency of the current geographic profiling techniques (Godwin & Canter, 1997: 36). The authors go further to argue that geographic profiling techniques would be more accurate if they focused on the most recent homicides rather than all of the homicides (Godwin & Canter, 1997: 36). A later study by Canter showed that it would be more efficient to focus on all the distances involved in the crime scene rather then just trying to identify the offender's residence (The Q-range and optimal function) (Canter, et al., 2000: 476). In previous studies Canter has argued that the anchor point may not always be the offender's residence. As such, by using the Q-range and optimal function the authors feel it was easier to find the anchor point then by using the traditional geographic techniques (Canter et al., 2000: 467). These studies are very useful when trying to assess where the offender is located, however, they do have their downfalls.

Twenty-eight percent of the victims in the first study were prostitutes (Godwin & Canter, 1997: 36). The problem with including prostitutes in the study is that this will affect the distances travelled. The element of choice is taken away in regards to where the offender can go to find a prostitute. One of Godwin and Canter's main propositions and findings was that the offenders travelled a shorter distance to encounter site then the disposal site. It is questionable whether this result is applicable to non-familial abductions because of the effects of including prostitutes. Secondly, Canter and Godwin

claim that the buffer zone may not exist in victim selection. The counter argument to this claim is that buffer zone does not mean that no criminal activity is present just less likely (Rossmo, 2000: 121). As such, there is still is a buffer zone that operates in the targeting of murder victims. The final problem with comparing both studies to the present research is that they focus on serial murderers. As there has been no research on comparing single to multiple murder offenders, it is unknown whether the two types of offenders are similar. On the other hand, there are studies on other crimes types which continue to show the trend that offenders commit crimes close to home.

A study by Feeney (1986: 2) that looked at where offenders commit robberies found that 70 percent of offenders will commit robbery in their own town and over a third in their own neighbourhood. Rand (1986: 118) found that in 82 percent of cases the rape victim lived in the same area as the offender. Another study on serial rape noted that the mean distance travelled was 5 km, with the farthest distance averaging at 6.7 km and shortest at 2.7 km (Warren et al., 1998: 45-46). Evans and Herbert (1989: 3) discovered that most assaults occur in or around the home of the victim. It was also established that 38 percent of homicides occur along the same census tract (victim's residence, offender's residence and offence location) (Rand, 1986: 123). If investigators look into areas known to the offender, they have a higher probability of discovering a victim. This notion is further supported by Canter and Hodge (2000: 186) who found that most offenders will commit crimes in areas close to their residence.

Research that looked at 79 stranger rapists discovered that most offences took place in areas close to the offender's home or alternate anchor point, such as their place of work or girlfriend's residence (Davies & Dale, 1996: 153). Studies on crime site

locations in relation to the offender's residence also provide support for the notion that offenders operate within their awareness space. Warren et al., found that in serial rapes, when the distance between rape victims was between 8 and 9.7 km, the offender lives in the area created by his crimes (1998: 53). It should be noted that most of the studies above do not discuss whether familial victims were included in their studies. One must be cautious when looking at the applicability of the above research to the present study. However, by looking at the previous research, shows how using a person's awareness space can lead investigators to the successful recovery of the body.

A study conducted by Canter and Larkin (1993: 65) proposed the circle theory that there may be two types of offenders, the commuter and the marauder. The commuter is believed to travel from his anchor point to a new area to commit his crimes (Canter & Larkin, 1993: 65). If one imagines two circles, the commuter will travel from one circle, his residence, to the other circle to commit his crimes (Canter & Larkin, 1993: 65). Whereas the marauder will have one circle, with his residence in the middle, and will then travel within the circle to commit crimes and return to his home base (Canter & Larkin, 1993: 65). The difference between the two is a marauder is believed to commit his or her crimes closer to home and the commuter will have no distinct connection between the places in which the crimes occur and the distance to the offender's home (Canter & Larkin, 1993: 65). The results showed that the majority of offenders fit into the marauder model (Canter & Larkin, 1993: 67). Canter and Larkin (1993: 68) noted that the sample size used in this study was small and are hesitant to argue if the marauder model will always be the best fit for identifying criminals. In reviewing the study it was found that the circle theory is one of the best ways to look at spatial data. Further it is

believed that the main hypothesis that the offender operates from a fixed location is confirmed by the study's results (Kocsis & Irwin: 1997: 197). When using the theory in their own study, Kocsis and Irwin found that only 21 percent of rapists, 18 percent of arsonists, and 30 percent of burglary offenders did not fit into the marauder offender type (1997: 202). However, like Canter and Larkin's study, this study also had a small sample size as well as slight differences in the demographic characteristics of the offenders from Canter's study (Kocsis & Irwin, 1997: 205). One must be cautious in claiming that the Kocsis study confirms Canter's circle theory.

Rossmo (2000: 150) also believes that it is important to distinguish between commuters and marauders, but does find problems with one of the key hypothesis of circle theory. He states that only looking at the crime site point pattern to determine an offender's hunting behaviour may lead to an inaccurate classification of the offender (Rossmo, 2000: 150). Depending on the directions that the offender travels, whether he is able to find victims along the same pathway or having to move in different areas to find more victims, the number of victims, and when the offence circle is created, all might lead to an inaccurate calculation of the offender as a marauder or commuter (Rossmo, 2000: 150). Alston (in Rossmo, 2000: 151) responded to the problems in Canter and Larkin's hypothesis by stating that marauders should be considered as offenders who travel under 5 km from their anchor point and commuters are offenders who travel over 5 km to their anchor point. A study by the Home Office, also look at the commuter model.

The Home Office in the United Kingdom conducted a study on distance travelled to burglaries (Wiles & Costello, 2000: 1). This study looked at police records and

conducted interviews with offenders. It was believed that the starting point for the offender may not always be the home base. In fact, in many cases it was felt that the offender did not start from his residence (Wiles & Costello, 2001: 2). The results were comparable to previous studies in that it was shown that offenders travelled short distances to commit the burglary (Wiles & Costello, 2001: 1). However, it was found that police records overestimated the distances travelled (Wiles & Costello, 2001: 2). When examining the location from which the offender started, which was not always the offender's home, the distances travelled were smaller than those found in police data (Wiles & Costello, 2001: 2). This shows that one needs to be cautious in relying on the variable of the distance travelled by the offender, as the starting point will not always be the place of residence.

Looking for the Disposal Site

Kim Rossmo is one of the leading researchers in the area of geographic profiling and he has developed techniques that aid investigators in looking for an offender. Although his theory can be applied to a number of different crimes, he has looked at how geographic profiling can be used when studying serial murder. He hypothesizes that the manner in which an offender will dispose of the body will directly relate to the perpetrator's knowledge of criminal investigative techniques and his experience in the field (Rossmo, 2000: 129). The more a person knows about what type of information is needed to solve a crime, the greater the chance the person will make sure this type of information is eliminated. As noted by Levin and Fox (in Rossmo, 2000: 129) the successful murderer will remove the body from the crime scene to a remote scene in order to reduce the chance of discovery. However, there are different methods that can

help in estimating the distance travelled by the offender, given the amount of time a person is missing.

Using Naismith's rule for travel time and distance is one method of determining how far the offender may have travelled with a victim. This requires knowledge of terrain, available roads, distance, elevation, and victim in order to determine how far and where they were taken (Rossmo, 2000: 130). The total distance travelled is supplemented by estimates of how far a person can travel, in kilometres per hour, given the type of terrain. For example, if the terrain is easy-going, an estimated travel time by foot would fall at roughly five kilometres per hour; for rugged terrain, an estimate of approximately one kilometre an hour would be sufficient, with an allowance of one hour of fatigue for every five hours of travel (Rossmo, 2000: 131). This type of information is very useful in developing guidelines into how far investigators should conduct their search. However, as noted previously, Canada has terrain unlike many other countries, thus it is questionable whether or not these rules can be applied without conducting research as to its applicability. It can once again be noted that determining the initial roads and areas to search will be difficult unless it can be theorized how and why an offender chooses certain locations. As will be discussed later in the paper, it is believed these locations are chosen within the killer's awareness space.

The one thing that can be noted about any criminal act is that the offender will almost always take the path of least resistance. In other words, the easiest and fastest way to dispose of the body without being detected by potential witnesses will be used. In the C.A.T.CH.E.M database, it is hypothesized that the chosen location will depend on a number of factors, including the number of barriers between the encounter site and

probable dump site, attractiveness of routes, how familiar the offender is with the area, time of day, and time it will take to travel to the location (Burton, 1998: 10). This makes it almost certain that the offender will be familiar with the area in which they will dispose of the body, because they will want to know the easiest way to get there, who will be there once they arrive, and how to escape without being noticed. This is supported by Keppel (1997: 673) who noted that in most cases of murder where a sexual assault occurred, the offender had previously selected a site to dispose of the body. It has been shown that it is extremely unlikely that the offender will carry the body farther than 45.7 meters from the vehicle or murder site if transportation is not used (Rossmo, 2000: 130). Even when transportation is used, it is improbable that the body will be found farther than 60.9 meters from the transportation route, for children; for adults, it is improbable that the body will be found farther than 46 meters (Rossmo, 2000: 130). Hence, this shows that the offender is usually not willing to wander very far from their awareness space. A detailed discussion of how awareness space applies to abductions will be discussed in further detail later in the paper.

All the articles dedicated to the distance an offender will go to dispose of a body are fairly consistent, as the same distances are listed within each article. However, it should be noted that they all use the same piece of research to show how far the offender travels with a body. Hence, it is questionable whether this is an accurate statistic or one that has merely been incorrectly used in many articles. As well, one also has to look at where the research was conducted. For example, statistics developed in the United Kingdom, which has an entirely different geography than Canada, may not be used accurately in Canada, even if they are applicable.

It is noted in all of the above research studies that the more information the investigators have on the various crimes sites (encounter, assault, murder, disposal site) the more likely the case will be solved. A study by Keppel and Weiss (1994) found the critical time frame to be 24 hours (Rossmo, 2000: 33). If the body is discovered within this time period, there is an 82 percent chance that the crime will be solved. However, after one month has passed and if the body is taken a distance over 2.4 km, this statistic falls to less than 5 percent (Rossmo, 2000: 33). As discussed later, looking at the current abduction investigation model in Canada it seems that the chances of finding a live child or body within this time period are low.

Previous research on disposal sites has sought to identify possible disposal sites with the type of offender. Keppel and Walter (1999: 420) argue that there are four types of sexual murderers, the power assertive, power-reassurance, anger-retaliatory, and anger excitation. It should be noted that the present study did not identify the offender type. Keppel and Walter (1999) found that the power-assertive murder is likely to move the body from the location where the murder took place (Keppel & Walter, 1999: 421). For the anger retaliatory murder, it is believed that in most cases the offender will walk to a location to meet the victim, which shows that the victim will not be moved far from the murder location (Keppel & Walter, 1999: 428). The anger excitation murderer has been found to pay great attention to the details of the crime, including the disposal site (Keppel & Walter, 1999: 432). By choosing a location that is familiar to him, burying the body, and moving the body, the offender is doing his best to avoid detection (Keppel & Walter, 1999: 432). Keppel and Walter do not address the disposal sites for the power-reassurance.

Despite the fact that the above study is useful when looking at disposal sites, there are many problems when comparing this study to the current research study. While the above study identifies whether the offender is likely to move the body, the type of area that the body will be moved to is not identified. As well, there is no reference to the relationship between the offender and the victim. The movement and placement of the body is affected by the relationship (Ressler et al., 1988: 61). For example, in one case where a brother killed his adopted brother, he left the body on the doorstep of his mother's house. The offender claimed to do this because he cared about the victim and whether or not he was found (Ressler et al., 1988: 61). In other cases, the victim may be buried in an area familiar to the offender, but not in an area where they are likely to be found because the offender does not care about the victim or victim's family's feelings.

Other studies have looked at whether the disposal site is in an open area or concealed in order to avoid detection. A study in 1988 found that 58 percent of victims' bodies were hidden (buried or covered) and 42 percent were left in exposed areas (Ressler, Burgress, & Douglas, 1988: 58). A second study by Ressler and Shachtman (1992: 115) showed that whether the body is covered up or exposed will depend on whether the offender is organized or disorganized. An organized offender is more likely than a disorganized offender to take the precautions of burying and hiding the body (Ressler & Shachtman, 1992: 120). The problem with Ressler and Shachtman's research is although they address whether the body was concealed, they do not identify the types of areas where the bodies are found. It is useful to know if the body is likely to be buried, but not as useful as knowing the area to look for the body. The concealment or lack of concealment of the body was a factor addressed in the present study; however as noted

earlier the comparison between organized and disorganized offender did not occur in the present study, but will be discussed as future research in Chapter Six.

A Critique of the Research

Although the above research is extremely useful to criminal investigators, it is problematic to apply such research to Canadian abduction/murder investigations. First, all of the above data are based on cases of serial murder. Once a person has killed once, his techniques of body disposal are likely to become more refined and the offender is likely to become more confident. This may result in changing the distances travelled to and from places used to dispose of the body (Levin & Fox, 1985: 166). In effect, if an offender is confident that he will not get caught, he is more likely to risk travelling extended distances in order to take the body to an area where no one would think to look or suspect him of committing the crime. For example, Paul Bernardo, who was involved in a number of rapes before killing Lesley Mahaffy and Kristen French, was very confident in his ability to get away with murder as a result. He murdered both girls in his home in St. Catherines, Ontario and then disposed of the bodies, one in a lake and one by the roadside, in the nearby city of Burlington, Ontario so that authorities would suspect someone living in Burlington of committing the crimes.

Clifford Olson is another example of a serial killer who went to great lengths to dispose of his victim's body in areas far away from where he would be suspected of the crimes. One may note that cases such as Olson's and Bernardo's are rare, but they do illustrate the point that serial killers may go to greater lengths to dispose of their victims. However, in the case of a single murder, the techniques are not likely to be as advanced, which may result in the offender taking the victim to different types of areas and

travelling shorter distances due to the lack of experience and confidence. As well, since single victim murderers are less likely to refine their techniques in order to avoid detection, a study of distances travelled may be more applicable to other single victim cases. Thus, until more research is done to see if single and serial murders have similar time and space patterns, one must be cautious in using the above data as a source of comparison.

Furthermore, the geographic make-up of Canada is vastly different from that of both the United Kingdom and the United States. Therefore, this may affect the distances and areas in which the offender will take and dispose of the victim. As well, both of the above studies have focused solely on the abduction and murder of child victims. Children are easier to move and dispose of because they are smaller and lighter, which makes them easier to conceal. An adult victim is more likely to put up a fight and is harder to conceal due to the difference in size. Thus, it is problematic to apply the findings of child abductions to adult abductions because there are different variables involved in the abduction and disposal of such victims. This assertion is supported by a study that found that adult victims will usually be found within 15.2 meters of the roadside and children within 70 meters (Burton, 1998: 10). In consideration of the vast amount of areas that can be searched this equates to a big difference in potential search sites. Many of the above mentioned studies claim that the offender and victim live in the same area, but they do not specify what distance comprises "the same area." The variation of what some people believe is the same area compared to others is too broad to assume people will all associate the same distance. Lastly, because there have been so few studies conducted in this area, it is hard to determine whether or not the results are

statistically reliable. This makes it more important to conduct additional research in the area to validate past research. As will be discussed later, looking at a person's awareness space is one of the investigators best ways of narrowing down potential search areas for both children and adults.

Crime Site Selection Model

Environmental criminologists see the criminal event as a result of an individual's intimate knowledge and perception of their surroundings interacting with the presence and motivation to commit a criminal act (Brantingham & Brantingham, 1993: 4). A key part of understanding environmental criminology is in recognizing that "...people are part of the environment, not separate...understanding crime requires understanding how people, places, spaces, routine activities and general self all influence which crimes occur, where crimes occur and when crimes occur" (Brantingham & Brantingham: 1997: 31). Felson (1986:120) noted that routine activities will provide the offender with the knowledge of different areas, which places are appropriate for certain activities, and this knowledge combined will help the offender succeed in committing crimes. People often make the mistake of assuming that criminal behaviour is motivated by similar circumstances, when in fact, it is often driven by many different incentives and etiological processes (Brantingham & Brantingham, 1993: 5). How a person views the world and its opportunities will invariably be different from person to person, thus the criminal event should be viewed as a broad range of behaviours rather then specific. Despite individual differences, the commonality among criminal acts is that they are committed in accordance with what the offender has learned and perceived from his surrounding environment (Brantingham & Brantingham, 1993: 9).

Rational Choice Theory

Cornish and Clarke's rational choice theory, a branch of environmental criminology, supports the idea that awareness space will help investigators identify potential crime scenes. Rational Choice theory is based on three concepts: "criminal offenders are rational and make choices and decisions that benefit themselves; crime specific focus is required; and there is a distinction between choices related to criminal involvement and decisions related to criminal events" (Rossmo, 2000: 115). Cornish and Clarke also emphasize that each crime type must adopt a specific focus because different crimes require different decisions to be made in accordance with the offender's needs and situational context (1986:2). They also believe that people have a pre-existing idea of what they would do if they encounter a situation where a criminal opportunity is presented (Lilly et al., 2000: 221). Rational Choice theory hypothesizes that all of the events that take place during the crime, such as victim selection and crime sites, are all conscious choices by the perpetrator (Lilly et al., 2000: 221). This is not to say victims and sites will be chosen beforehand, but when selected, they will be deliberate decisions made to protect the offender's well-being. Using available information, resources and amount of time, the offender will choose a location that allows them to avoid negative consequences, such as being caught, while increasing the gratification of committing the crime (Lilly et al., 2000: 222). This supports the idea of knowing an offender's awareness space in order to identify disposal sites, as it shows that offenders will select locations that are known to them because it will decrease the likelihood of negative consequences and increase the rewards of committing the abduction and murder.

A critique of rational choice theory is that it ignores the idea that each event is rooted in a previous event, so offenders do not have the "free will" to choose the course of action (Hirschi, 1986: 106). However, it is being argued here that no matter what happens to change the course of events during the murder that the offender will select a location that they are familiar with in order to minimize the likelihood of being caught. The original choice may be affected, but most people have a fairly large awareness space, so the possibilities are not limited to one choice. Even if the offender has to dump the body along the way to the chosen destination, this is still considered to be in the offender's awareness space. The implication of this is that investigators must also focus on the possible travel routes that the offender chose.

Awareness Space

Brantingham and Brantingham (1993:11) say that people build cognitive maps of the areas that surround them. Cognitive maps are comprised of templates that tell a person the type of environment associated with each area. This information includes the type of terrain, behaviour associated with that area, absence or presence of guardians and potential criminal opportunities (Brantingham & Brantingham: 1993: 11). Templates will be comprised of, but not limited to, the node, edges, and paths. Nodes are the activity spaces, such as work, school and home (Brantingham & Brantingham: 2000: 217). The nodes that people frequent are chosen for not just the location and encompassed activity, but for the level of comfort they provide (Brantingham & Brantingham: 2000: 217). Paths are the travel routes that people take to get between one node to another, and edges are the boundaries such as rivers and mountains that separate different regions (Brantingham & Brantingham, 1984: 359). Putting all of these images

together will comprise a person's awareness space. Canter and Hodge (2000: 186) support the idea that people form mental maps that are a representation of a person's experiences and knowledge of their surroundings. For example, Clifford Olson used cognitive maps while committing his crimes. The first mental map he used was the area surrounding his home, to select victims, and the second was around Agassiz Prison, to dispose of the bodies (Rossmo, 2000: 161). Knowing an offender's awareness space will enable an investigator to narrow down the number of places where the suspected offender(s) may have taken the victim.

The amount of area included in awareness space is bound to be different from person to person. Factors such as age, job location, friends homes, transportation used, and daily activities will all influence the size and shape of their awareness space (Brantingham & Brantingham: 1999: 22). For example, someone who lives in Burnaby, works in Surrey, has friends in Vancouver and is from Kamloops, is bound to have vast awareness space. Clifford Olson had an extremely large awareness space. He had many jobs throughout the lower mainland which served to increase his knowledge of the area. In fact, it was noted that in a two week period, he put over 5000 kilometres on a rental car he used to pick up and dispose of his victims (Rossmo, 2000: 161). Awareness space will not only include frequented areas, but also the surrounding vicinity, such as forests, dense bush and rivers that shoulder travel routes. It should further be noted that awareness space is formed by both legal and illegal activities (Brantingham & Brantingham: 1991: 35). When trying to determine an offender's awareness space it is important to focus on the area in which he is committing crimes. The offender may have grown up in the United States, but if he is committing crimes in British Columbia he will

be using his knowledge of the area where he is committing crimes. Thus, investigators need to look at all areas occupied by the offender before selecting regions to search for the victim.

Most people will admit that they do not like going into areas that they are not familiar with and it is no different for criminals. When a person is choosing a place to take a victim and hide a body, whether during the commission of the crime or before, they will select an area where they feel comfortable. Areas can also be selected because of the offender's history and experience, such as knowing that a certain area is "good" for committing that type of crime (Brantingham & Brantingham, 1999: 18). Offenders will want to go to a familiar place so they know what to expect once they get there (Brantingham & Brantingham: 1993: 4). These will typically be locations that make the offender feel safe and secure, a place where the risk of getting caught is minimal (Brantingham & Brantingham, 1997:37). Thus, a person will want to know, prior to committing the act, what areas may be suitable. In most cases, it appears that the chosen crime site is not random, rather a selected place within the offender's knowledge space (Brantingham & Brantingham, 1993:5).

Notwithstanding the idea that the crime site is selected within the offender's knowledge space, this does not mean that the crime site is pre-planned. In 50 percent of homicides it was established that the offender planned the crime, but in 16 percent of the crimes it was a spontaneous act (Ressler et al., 1988: 48). Feeney (1986:59) found in his study on robberies that only 15 percent of offenders had a preconceived plan. Nonetheless, whether planned or not it is still believed that offenders will choose where to commit crimes in relation to their awareness space. The behaviour of most serial

rapists shows that there is a great deal of care and attention to their actions in order to avoid apprehension (Kocsis, Cooksey, & Irwin, 2002: 161). If the crime is planned, then it is obvious the offender is familiar with the areas in which he is going to commit his crime. If it is not planned, then it is even more likely he is going to commit the crimes in areas where he is familiar. As previously noted, one of the most important elements to an offender is that the crime goes undetected by the public or police. This means that the offender is not going to go to an area that he is unfamiliar with because he does not know what to expect. It is a safer choice to go to an area that he already knows. "...it is usually safe to assume that the decisions made represent the offender's best efforts to maximize the benefits for himself" (Cornish & Clark, 1986: 7).

Brantingham and Brantingham (1991: 30) found that the majority of crimes, especially ones of personal violence, will take place near the victim or offender's home which are often close to each other. Pyle et al., (1975: 143) also found that offenders will tend to travel shorter distances when committing violent crimes. They found that when comparing burglary to robbery (considered a violent crime), that the offenders committing robbery would travel four times less then a person committing a burglary (Pyle et al., 1975: 144). It has been found that homicides are also committed close to home. Rossmo (2000: 32) found that over half of the victims in his study were found within 2.4 km of their residence. However, it is not mentioned whether this distance is measured by travel route or crows flight. It is also stipulated that many crimes, including murder, occur near major pathways such as highways and main arterial roads (Brantingham & Brantingham, 1997: 36). This is also illustrated in the above research

which found that most victims are found within 70 meters of the transportation route used to move the victim (Burton, 1998: 10).

Awareness space can be applied to investigations by looking at the areas known by the offender that are closest to the crime scene. As noted above, the victim is often disposed of in an area that is close to their home. Other areas to look would be near major travel routes that lead to or are close to secluded areas. In most cases, bodies are taken to places where there is the least likelihood of discovery. If the offender is taking the person to the location before killing the victim, they will want to be in an area with the least chance of being discovered during the commission of the crime. Once investigators are able to narrow down the list of suspects, they should look at possible travel routes that the offender took to work, home, and friends. However, the problem with this is that it is not very often the case that investigators will know who the offender is until well into the investigation. Therefore, it is important in this situation that investigators utilize the knowledge of their fellow officers to narrow down the list of potential places and travel routes that the offender took to dispose of the victim. Using the awareness space of neighbours or community members can also be used as a temporary substitute to that of the offender because community locations, which share characteristics of typical disposal sites, can be detailed. There are problems with using awareness space and rational choice theory's focal point when studying abduction and murder.

Crime pattern theory (awareness space), for the most part, is based on studies of burglaries, assaults and auto theft. The type of person who commits a burglary or theft may not be the same as one who abducts and murders a child. A person may use

different cognitive reasoning to select murder sites compared to selecting a house to rob. A murderer may feel it is less risky to dump a body in an unfamiliar area, such as a forest or dense bush, so the body is better concealed. However, a burglar may feel it is less risky to rob a house in an area where they belong so they will not stand out as an outsider. Therefore, it is unknown whether this theory is reliable when applying to abduction and murder investigations. It may be more useful to apply awareness space to burglaries and thefts because typically these are the types of crimes that an offender will commit more than once, which is atypical for murder, throughout the year. In addition, the offender will commit their crimes in an area that is encompassed within their work, home, and social sphere, so it will be more useful for investigators to narrow down their search pattern to these areas (Brantingham & Brantingham, 1991: 36). By looking at the patterns of thefts and burglaries in the area it will be easier for investigators to reduce the search area for their offender. However, abductions and murders are committed so rarely that it will be harder to narrow down the space in which the offender commits the crimes, as they will not have many points of comparison. It will be extremely difficult to narrow down a person's awareness space to a point were investigators are able to cover all areas in the short amount of time they have before evidence starts to decay. This is especially true in urban areas where a person's activities are far more likely to cover a larger area (Kennedy, 1990: 241). Without direct research on how child and adult abductors select crimes sites, such as areas familiar to them from work or travel routes, it will be difficult to use awareness space as a useful investigative tool.

Looking at rational choice theory, it is hard to believe that offenders will always make conscience decisions when selecting victims and sites to commit their crimes.

Many crimes are opportunistic, so it may just happen that an offender stumbles across a victim and takes them to a secluded area nearby. There is no way of knowing if the area is familiar to them or not, making the decision of where to look a bit of a guessing game. Thus, if investigators rely solely on the offender's awareness space, they may overlook the crime scene and disposal site. As well, not all abductions are carried out with the intention of committing a murder. If something unexpected happens, the offender may feel they have to dispose of the victim quickly, which means that the area chosen may not be known to the offender prior to committing the crime. For example, it may be a bridge they cross or side of a roadway. Either way, there is no certainty that this is an area familiar to them. If the perpetrator is a loner, it will be difficult to identify the offender's awareness space, and it is unlikely while under investigation that the individual will want to disclose the locations they usually frequent. With little research done on abduction/murder and the selection of disposal sites, it will be difficult to identify whether awareness space in combination with rational choice theory, are appropriate theories to utilize. On the other hand, looking at the research that has been done, it appears that knowing an offender's awareness space has the promise of high levels of predictability for finding crimes sites.

Why This Research Is Important

A look at the current abduction investigation model will show how investigators are currently going about finding the crime sites in cases of abduction. This will include how current investigations are run, the problems such investigations encounter, and why there is a need to increase the knowledge of how and why offenders choose certain locations to carry out their crimes. It is always hoped that the end result of an

investigation will be to find the victim alive, however without an effective and efficient investigation, the chances decrease. Furthermore, even if a victim is not found alive, it is still important to find the body quickly, which will allow for the preservation of evidence, closure for the family, and an increased likelihood of apprehension.

The Abduction

On most occasions, child abductions are committed by members of the family, such as a mother taking a child after a bitter divorce and custody battle. From 1992 to 2003 there was an average of 365 parental abductions per year compared to an average of 48 stranger abductions per year (RCMP Missing Children Registry, Media Support Website, 2003). In these cases, investigators have at least some information about the perpetrator of the crime. Police know where they work, live, and have access to many other sources of information that will help locate the child. However, when a stranger takes a child, there is little information for police investigators to work with to solve the case (Filer, 2003). In familial abductions, it is common that the "abductor" will take the child to another place where they feel they can live undetected. In stranger abductions, the longer it takes to locate the child, the less likely investigators are to find the child alive (Filer, 2003). Thus, the faster investigators are able to discover the offender's awareness space and consequently narrow down search fields, the more likely they will solve the crime.

One of the most horrific things that can ever happen to a parent is to discover that their child has been abducted. Despite all efforts to keep children safe, one cannot keep watch over their child 24 hours a day and unfortunately there are vicious predators that are just waiting for the perfect opportunity to take, sexually assault, and then murder a

child. In British Columbia, the cases of Heather Thomas and Mindy Tran illustrate the need, both to the police and public, to study disposal sites, as an abducted child or adult will most often be taken to a location near the disposal site.

On October 1, 2001, Heather Thomas was taken from outside her Cloverdale home by Shane Ertmoed (a neighbour) (Wiebe, Central Fraser Valley Search and Rescue Society Website, 2003). He lured her into his house, sexually assaulted and then murdered Heather. He then took her body, shoved it into a large bag and disposed of it in Alouette Lake in Golden Ears Provincial Park. At peak times during the investigation, there were over 800 police officers, search and rescue workers, and volunteers looking for Heather. Despite the vast resources used in this case, the lack of organization and understanding of roles that the police officers needed to take, lead to an unsuccessfully conducted search. It was not until October 23, 2001 that her body was discovered by a man walking through the park. For over twenty days, Heather's parents dealt with the pain and anguish of not knowing whether their daughter was dead or alive.

Similarly, Mindy Tran was riding her bike outside her Kelowna home when she was abducted by an "unknown" person (Waters, Capitol News Website, 2003). Mindy was taken on August 17, 1994. Her body was not discovered until months later, in October, in a shallow grave in Mission Creek Park. Similarly to Heather's case, Mindy's parents spent months not knowing what happened to their daughter.

Both of these cases deal with a child who was abducted by a stranger. Similarly, in both of these cases, the child's whereabouts where not discovered for days, or even months, after the date the child was reported missing. It cannot be said in either of these cases that there was no one looking for the children. In fact, in both cases there were

hundreds of people searching for Heather and Mindy. In neither of these cases did police investigators find the child. In Heather's case, it was someone walking in the park; in Mindy's case, it was a psychic who took a piece of her hair, walked to the park and told investigators where they would find her. Thus, the RCMP realized that, due to bad investigative techniques, both of these children were not discovered for a substantial period of time. More importantly, it was realized that key evidence may have been mishandled in one case, which may have lead to the "perpetrator" 'getting away with murder' (Filer, 2003). Police investigators appreciate the fact that current investigative techniques are not as refined as they could be in order to conduct the most efficient and effective investigations. Cases such as those of Heather and Mindy illustrate the need to develop procedures to deal with abduction cases. In particular, a look into probable disposal sites would dramatically cut down the amount of time it may take investigators to locate a victim. As most of the research has focused on children, it is especially important to conduct additional research on adult abduction in order to increase the chances of locating these disposal sites.

What Currently Exists to Deal with this Problem?

Currently in Canada, there are no formal procedures that address abductions and the sites where investigators should look for a victim. Investigative techniques are based on a major crime model that was developed to deal with cases that are considered to be major crimes. This model will be discussed later in more detail. The problem with this is that not all crimes are the same, and as such, should not be dealt with in the same manner. For example, it can be argued that the perpetrators of major crimes are not all going to have the same personal characteristics, which are crucial elements to understand while

investigating a case. It is this type of information that can lead to the discovery of an abductor and subsequently, a missing child. Although it can be argued that offenders commit a multiple number of different crimes, it is unlikely they will go from embezzling corporate funds to abducting and murdering children. Thus, it is clear that there needs to be procedures that guide abduction investigations as to what locations are best to search, for both the offender and victim.

Another problem with not having more thorough research regarding sites that offenders will choose to take their victims is that it leads to a subjective investigation (Filer, 2003). Police investigations often revolve around guesswork as to where they should look for a victim and the offender. The value of experienced police officers working these types of cases is crucial because they are familiar with the workings of abduction cases (Filer, 2003). However, this is only part of the puzzle. With the use of statistical information, this could provide empirical support to conduct investigations in the most efficient and effective manner. This is based on the objective of prioritizing multiple suspects, which will then help determine what areas should be searched. In addition, by investigating the awareness space of the potential suspects this will help the police decide what locations should be searched.

Investigative Problems

One of the biggest problems in current investigations is that police officers do not know the roles that they are to assume (Filer, 2003). This spans from the initial call-taker to the primary investigator on the case. The implications of this are fairly obvious. Crucial information may get overlooked and information that should be obtained may get missed. Information such as whom the child was last seen with is of the utmost

importance as it is possible that this person may be the perpetrator. Identifying the perpetrator can lead to various information, including where the offender may have taken the victim or in the worst case scenario, where they disposed of the victim. Thus, with every mistake and overlooked piece of evidence, time passes, which lessens the likelihood that the victim will be found alive or in the worst case scenario, that police will be unable to solve the crime.

Furthermore, the problem of police personnel not understanding the roles they are to assume is magnified in rural areas (Filer, 2003). Unlike urban areas, which have large numbers of police officers and supporting personnel, rural areas often have only two or three officers, with additional help to be found in distant geographical districts (Filer, 2003). As well, many rural areas in British Columbia contain dense terrain, such as hectares of forested area, which makes the search for the victim even more complex. As the first few hours of the investigation are crucial, it is important that the correct decisions are made the first time around (Filer, 2003). As well, with only a minimal number of officers available to work on the case, this leads them to be overworked, overrun with information and leads to follow, which in turn causes mistakes to be made (Filer, 2003). Hence, it is of the utmost importance that officers understand the procedures that need to be followed in order to maximize the effectiveness of an abduction investigation. Research into the area of awareness space and disposal sites may increase the efficiency of abduction and murder investigations.

One of the best solutions to having a limited number of officers available is to use the public to assist with an investigation. When people hear of a person being abducted, they are more than willing to provide any support that they can. In rural areas

specifically, the foundation of a community is often defined by the geographic location. Thus, the citizens are more familiar with the people who live around them and are more likely to assist in the investigation of the child's disappearance. However, if the police do not understand the roles they are to assume, then it is unlikely that an organized and efficient system of searching for the victim will be passed down to volunteers assisting the investigation. Thus, unless the police are able to narrow down the search field for officers and the public, there may be a lot of wasted time looking in the wrong places.

Current Guidelines: Major Crime Investigations

In Canada, there are currently no set out procedures that deal specifically with abduction investigations, in particular how to identify and narrow down a search plan. The current procedures are centered on the idea that "a plan, any plan is better than no plan" (Morissette, 1999: iii). This model thus utilizes the experience, knowledge and skills from successful and unsuccessful criminal investigations (Morissette, 1999: i). However, with no specific research conducted on how to identify and locate possible areas in which the victim was taken, this nevertheless lessens the efficiency of an investigation. If one is not able to narrow down the possible number of areas that need to be searched, the chances of picking the location where the offender has taken the victim within the first few critical hours of the investigation will be decreased. On the other hand, there are some benefits to using this model.

The Benefits

This model covers a number of different procedures that should be followed in a major crime investigation. However, it is limited to covering the following crimes

(which comprise the majority of major crime investigations): multi-victim accidents or disasters, high profile single or multi-victim homicides, multi-victim sexual assaults, serial crimes versus persons and stalking, institutional abuse of children or elders, high profile and multi-victim white collar crime, officer involved deaths, or major administrative investigation or public inquiries (Morissette, 1999: i). Thus, one benefit of this model is that it covers a multitude of crimes and provides investigators with a "one-stop shop" as to where to look for techniques when conducting a major investigation. It also allows investigators to utilize techniques that may be specified for use in one type of criminal investigation, and apply it to another. A third asset of this model is that it encompasses failures and successes of previous investigations, which will help improve future investigations. Thus, on the whole, this model is beneficial for the policing community and should not be ignored when conducting an investigation.

The Problems

Despite the fact that this model is useful and should remain as a resource for police personnel, it also has its shortcomings. For a start it deals with a number of multifaceted crimes. Each of these crimes can be said to be different in a number of ways, including the type of person who would commit the crime. Thus, if you have investigative techniques that are focusing in the wrong area, this will minimize the likelihood of finding a child alive.

A second problem with this model is that it looks primarily at officer experience to derive the objectives of the model. As noted by Zajac (2002: 251), experience is a great asset when developing procedures, but it should not be the sole source of information that fuels the investigative process. This model thus fails to take into

account other sources of information that may be useful in an investigation. Academic research on the success and failures of investigations would provide the police with useful information as to what works and does not and the reasons behind this. More specifically, academic research would help identify crime patterns that are associated with abductions, which in turn would aid investigators in areas to look for the offender and victim. With something as specific as abduction, it is apparent that there is a need for specific procedures since the circumstances surrounding the crime are very unique in nature. One such specific circumstance is the short amount of time investigators have to work with to hopefully find a live victim, or to quickly discover the body, thus increasing the likelihood of solving the crime.

Time is of the Essence

When a victim disappears, time is vitally important. The victim may not be killed immediately and, if found quickly, it is possible they may be saved. The chance of finding a child alive within the first few hours is fairly high. However, after a few hours have passed, the likelihood of finding a child alive diminishes dramatically. One study found that 44 percent of victims are killed within the first hour, 74 percent within 3 hours and 91 percent within 24 hours (Rossmo: 2000: 32). It has also been found that it takes a parent, on average, almost two hours to report their child as missing, thus giving the police a very small window of time where finding the child alive is probable. In fact, it was discovered that in 68 percent of the cases, the victim was already dead when reported missing to the police (Rossmo, 2000: 32). It may seem that there is little point in developing an investigative tool to aid in the recovery of abduction victims if there is little hope of finding the victim alive. However, as noted previously, it is important to

find the body quickly in order to increase the chances of an arrest. In effect, a sense of closure for a family is not just in finding a body, but in having the individual responsible for the crime held accountable for his actions.

If a victim is killed, the killer may remain at the site for a period of time. Also, even if the victim is dead, and the killer is gone, the body and the dump site may yield extremely valuable evidence, such as DNA and other trace evidence. Offenders recognize these issues, as they take great measures to distance themselves from the murder and or disposal site (Santtila, Canter, Elfgren, & Hakkanen, 2001: 380). When a body has been dumped at a distance from the crime, the killer may not have expected the remains to be found. In such cases, the body and disposal site may not have been cleaned up, leaving behind a rich source of evidence, which will deteriorate if it is not located quickly. Killers, particularly serial killers, often return to the scene of the crime, and so, if a body is found quickly, it may be possible to conduct surveillance at the site to catch the killer (Rossmo, 2000: 130). However, at the present time, decisions on where to search for the body are based on very subjective parameters. Therefore, this thesis is designed to develop an understanding about the disposal of remains, and of the variables that impact where a body is most likely to be dumped. This should help in improving present investigative methods.

Conclusion

The one thing that becomes overwhelmingly apparent is that there needs to be additional research in this area to discover how and why offenders select places to dispose of their victims. With such a vast difference in the type of terrain in Canada, it is even more important that research be conducted to see if there are any differences in

disposal patterns and the distances involved. It is becoming a common occurrence that people have to travel large distances from home, to go to work, school, and evening activities, which means that people's awareness spaces are becoming even larger. This makes it even more important for investigators to become familiar with techniques that will allow them to more readily identify patterns used in abductions and body disposal. Thus, constant research needs to be done on criminal activities, both proactive and reactive, to assist in crime control and criminal investigations.

It is hoped by conducting research in previous offender's choice of disposal sites, that police may be able to catch the offender before the victim is killed. Although the amount of time is relatively short between abduction and a murder, every new piece of research will bring investigators closer to being able to identify crime patterns. It is believed that the use of criminal and geographic profiling techniques is one of the best ways to achieve this goal. "The intent of criminal profiling...is to identify the key crime scene and behavioural factors related to the killer, thereby enabling the homicide investigator to more effectively analyze murder scenes..."(Keppel & Walter, 1999: 419). However, until this research is done, investigators may be missing key information that can be used to solve crimes.

CHAPTER THREE: METHODS

Research Design

The purpose of this chapter is to explain the methodology used in the research, case selection, data analysis, and choice of cases. This study is an exploratory and descriptive look into the factors involved in the disposal sites of abductions that end in homicide. This project is theory-driven, and using a deductive approach, this shows what the important areas are to research and what implications this research can have for future studies. The following descriptive phase will "...adequately represent the phenomenon of interest as it occurs in the population of interest..." (Palys,1997: 80). This project will look at police databases and an analysis of patterns that emerge from the data.

This project is based on a quantitative approach because the information in ViCLAS and HITS are best suited to statistical analysis. Based on the theory of awareness space, discussed in detail in Chapter Two, it is felt that patterns and general trends will emerge in this type of criminal offence. As this study is exploratory, a look at whether any patterns exist in non-familial abduction ending in homicide would help to determine whether further explanatory research is needed to find out why certain behaviours are chosen by offenders. Therefore, the data used in this study were entirely selected from HITS and VICLAS. An objective analysis of these data illustrates patterns that allow for subjective speculations to be made regarding why the offenders are exhibiting such behaviours and following certain patterns for victim selection and disposal.

Research Context

Violent Crimes Linkage Analysis System (ViCLAS)

ViCLAS is the primary database used for this research. It became an official database for all the police forces across Canada on January 1, 1992 (Moore, 2002). ViCLAS has two main functions. It is a statistical database but, more importantly a database that can provide possible links between solved and unsolved cases (Moore, 2002). Today, this database consists of over 150,000 cases. ViCLAS includes data on all aspects of the criminal offence, victim, and the offender. Crimes included in the database are homicides, sexual assaults, false allegations of sexual assault, and non-parental abductions, and any attempts of the above crimes (Moore, 2002). There are a number of reasons why these are the only crimes included in the database.

In order to link cases together it is important to have insight into the offender's behaviour and modes operandi (Moore, 2002). The crimes listed above provide investigators with the opportunity to see the unique behavioural traits of the offender because of the innate interpersonal nature of these crimes (Moore, 2002). As well, the close interaction between victim and offender allows for a better account of the offender's behaviour during the crime. In other types of crimes, such as possession of an illegal narcotic, the interpersonal aspect of the crime is missing which makes it difficult to identify any unique aspects in the offender's behaviour and patterns.

ViCLAS is one of the best databases available to police investigators across Canada. In order for this system to work at its full potential it relies on each police officer filling out the required ViCLAS booklet completely and accurately and submitting it to ViCLAS (Moore, 2002). In British Columbia the compliance rate is currently

around 90 percent, which is one of the highest in the country (Moore, 2002). As well, ViCLAS specialists should have investigative experience and the training to analyze and record information with the strictest attention to detail and accuracy (Filer, 2001). For example, not all victim or offender statements will provide a straightforward account of the events that took place during the contact between the victim and offender. Thus, in order to ensure that the statement is assessed correctly, the ViCLAS specialists must have the experience that enables them to understand investigative procedures and the knowledge on how to obtain missing information (Moore, 2002). ViCLAS is an extremely useful and well-established database. In the coming years this database will only get better and benefit all current and future police officers. Thus, after looking at ViCLAS in its entirety it was determined that this was the best source of information for this research project.

The information for this research project was obtained by a ViCLAS analyst. As this is the first research study where ViCLAS has been used as a data source for non-familial abductions that end in homicide, a search of the system had to be undertaken. The cases used for this study were extracted from ViCLAS in September of 2003. A search was conducted using the following criteria: abduction, homicide, victim's age 0-17 male and female, victims over the age of 18 female, non-familial, and solved resulted in 37 cases being identified. As the data analysis of this project commenced in April of 2004, another search of ViCLAS was conducted that resulted in an additional 12 cases being added. Eleven of these cases were historical, and one was a recent case that had just been solved. Therefore, this study includes all non-familial abductions that ended in

homicide that have occurred in Canada and were entered into ViCLAS, to the present date.

Homicide Investigative Tracking System (HITS)

The second police database that was selected for this study was HITS. This database came into affect in 1990 as part of a Community Protection Act. It was developed as a result of several high profile offenders, such as Ted Bundy, Gary Ridgeway, and Wesley Alan Dodd, that highlighted the need to share information on violent offenders (Moran, 2002: 1). In these cases patterns emerged between the offender's murders, choices of victims, and disposal sites however many of these links were not seen because no system was available to investigators to compare details of the crimes against other regional and even national cases. Similar to ViCLAS, HITS relies on law enforcement officers to fill out reports and submit them to HITS (Keppel & Weis, 1993: 1). Originally the report was 54 pages and contained 467 fields, however this was revised to a shorter version to encourage a higher completion rate (Keppel & Weis, 1993: 1). Police officers find that the time it takes to fill out the report is well worth it because the time it saves in conducting an investigation is invaluable (Keppel & Weis, 1993: 7). Time that would traditionally be spent interviewing people and reading over old files can now be eliminated by sending a query to a HITS analyst (Keppel & Weis, 1993: 7). It is argued that HITS became one of the most useful criminal investigation tools in Washington State.

The database started out as only including homicides from Washington State that occurred between 1981 and 1986 (Keppel & Weis, 1993: 1). The categories now comprise sexual assaults, child luring, stalking, sex offender registration, child

pornography, identity theft, and suspicious circumstances (i.e. bloody clothing found, missing persons, children approached at school, etc.) (Moran, 2002: 2). In addition, HITS also accesses data from the FBI, RCMP, sheriff's offices, employment security, as well as many other law enforcement agencies (Moran, 2002: 2). "In effect, this creates "one stop" shopping for all levels of law enforcement...without HITS intervention, there is no single place where all the answers can be found at one time, in an emergent manner and searched and organized for law enforcement use" (Moran, 2002: 2). In October of 1991, Washington and Oregon State police agreed to join their databases (Keppel & Weis, 1993: 5). All together, this database includes over 7530 homicides, 5207 cases from Washington State and 3808 which are solved.

Similar to ViCLAS, HITS contains a "...ad hoc interactive search capability, which allows HITS analysts to design specific investigation queries, choosing from as many as 250 fields of information" (Keppel & Weis, 1993: 2). Using these search capabilities, a HITS analyst performed a search in March of 2004, which resulted in 25 cases being identified. HITS analysts have 90 formatted search queries, which allows for a quick search for common searches (Keppel & Weis, 1993: 2). However, a new search query was designed for the purposes of this research. The search fields were as follows: abduction, homicide, stranger, acquaintance, male and female victims age 1-17, female adult victims age 18 and over. Many of these cases had to be eliminated from the study due to missing information, which will be discussed later in the chapter. In the end, eight cases from Washington State were used in this study.

Police Departments

As previously mentioned, one of the shortcomings of ViCLAS is that some of the reports did not include all of the information needed in order to complete this thesis. One of the most important pieces of information that is not in the ViCLAS reports is how the offender was familiar with the disposal site. For a number of cases, the complete addresses of the victim or offender's residence, initial contact scene or murder site were not included in the report. In relation to this, many of the disposal sites were in areas that cannot be mapped so investigators needed to be contacted to obtain accurate distances to the crime sites. Many of the reports were missing data, such as when the victim was abducted and when the body was found. Therefore, for the majority of the cases it was necessary to contact the RCMP detachment, municipal police force or Provincial police department that originally investigated the case in order to obtain this information. A list of questions, specific to the case, was sent to the records department of each detachment. In most cases, the questions were turned over to the original investigator or another officer who then provided a response to the questions. Most detachments were able to provide the necessary information. Unfortunately, as some of the cases are dated, some of these files have been purged and it was no longer possible to access any information on such files. It should also be noted that due to time constraints and security clearance, obtaining missing information from Washington State police was not possible. However, the responses received from the RCMP provided ample data so that this project could be completed.

Sampling Procedure

Temporal and Spatial Factors

Many different factors had to meet in order to be included in the study. The first factor was the year that the murder took place. As the cases span from 1976 to 2003, a comparison needed to be made between them to ensure that there was not substantial differences in the crime patterns. An example of this is whether offenders presently use cars more to move their victims in comparison to cases in the 70's when vehicles were more of a luxury item. This is important because a vehicle will increase the distance a body can be moved without detection. It was seen that the circumstances under which the murder was committed, such as whether a vehicle was used, in earlier years did not vary enough from the later cases to substantiate their elimination. Additionally, a look at homicides across a larger time span was selected to provide more information as the phenomenon occurs fairly infrequently.

The next factor to be addressed was where the abduction and homicide took place. As ViCLAS includes cases from across Canada, it was decided that it would be best to examine all cases that took place in Canada, again to avoid yielding a small sample size that would affect the reliability of results. For the purposes of this project, in regards to the HITS data, only cases from Washington State were included in the analysis. This was done because it was deemed the geographic climate is very similar to that of British Columbia (B.C.), which allows for a better comparison of cases. It should be noted here that the majority of cases did occur in B.C. During the 1980's in B.C. there was a serial murderer that killed 11 people, and until recently, this was the highest number of murders committed by one person in Canada. This is the primary reason that B.C. has a higher

incident rate of this type of homicide than other provinces. As the geographic profiler who oversaw this project has a good working relationship with HITS personnel, and additional data were sought for this study, it was felt that HITS would be a good choice. Thus, any case included in this thesis occurred in Canada or in Washington State.

The Victim and the Offender

Age and Gender

For children and young adults (victims between the ages of 1-17), age was not a criterion for elimination from the study. The only time where age excluded someone from the study was when the victim was over the age of 17. If a male victim was over the age of 17 he was excluded from this study. The rational for this decision is provided in detail later in this chapter. In this research, cases were analyzed in three different age groups (to be discussed later), so it was important that the age be listed on the report. Cases where the age was not determined were eliminated from the research.

The age and gender of the offender were not factors that would result in the elimination of the case. For the purpose of this study, offenders of all ages were included to determine the age in which most offenders commit homicides and whether the findings of this study compare to previous research. The gender of the offender was also not an issue as all of the offenders in this study were male. However, the relationship between the victim and offender is a factor that resulted in cases being eliminated.

Relationship

One of the most important factors to be addressed was the relationship between the offender and the victim. In order to be included in this study, the offender must not

have been related to (biologically or by marriage) or living with the victim. This means that the offender had to be a stranger, acquaintance or friend. In short, the victim could have had previous contact with the offender, but the offender could not be a family member or close relative. The reason for the exclusion of cases in familial abductions and homicides is that the dynamics surrounding the murder are likely to be extremely different from that of non-familial murder. For example, the time and place where the murder occurs between stranger and familial homicides are very different. Familial homicides are more likely to occur in the home as compared to a stranger homicide. As well, the distances travelled to encounter the victim and murder him or her will also be affected, because the element of choice is taken away.

Occupation

Another factor addressed in this study was whether or not the victim was a prostitute. Although studying the factors in the murder of prostitutes is an extremely important subject to research, it was found that the dynamics involved in prostitutes being murdered compared to a non- prostitute were significantly different. One of the factors addressed in this study is the types of areas where the offender goes to select his victim. In most cases the offender may have a number of different places, such as the park, school playground, shopping mall, or other locations that he can go to find a victim. However, in the case of prostitution the element of choice is taken away. As prostitutes only frequent certain area, the offender is limited to the places he can go to find one. In addition, this study is examining abductions cases. In most circumstances a prostitute goes willingly with the offender and at a later point is murdered. Lastly, the distances involved in a prostitute homicide will also be different. As the offender is limited to the

areas he can go to find a prostitute, this will result in different distances than that of a non-prostitute homicide. The offender may be forced to drive farther in order to obtain his victim. Due to the reasons listed above it was felt that prostitute murder victims should be eliminated from this research project.

Motive

One of the most well researched areas of homicides is the motive. There are a number of different reasons why an offender chooses to commit murder. They may do it for financial gain, revenge, as a result of another offence such as robbery, for power, or for sexual gratification. It is argued that the majority of homicides occur as the result of the offender committing other crimes, such as robbing a bank or sexually assaulting someone (Santtila, Canter, Elfgren, & Hakkanen, 2001: 365). In the majority of cases in this study, sexual gratification was the motive for the homicides. However, it was felt that because this study is one of the first to examine how an offender chooses the disposal sites and the distance patterns involved in the crime, that motive was not a factor in eliminating the case from the research project. Assessing whether the motive affects the distances and choice of disposal site would be better researched in future studies when the subject matter has passed the exploratory and descriptive stage.

Case Status

Another variable to be addressed was whether or not the case was solved. The offender did not have to be charged or convicted of the crime, but there had to be a person identified as the perpetrator. In ViCLAS a solved case is considered solved when the police feel that they do not have to look at any other suspects because they have

identified the person that committed the crime. The reason this criteria is included is because it must be established that the offender is a stranger to the victim. Thus, the case must be considered as solved by the police who conducted the investigation. Based on this criterion, two cases were eliminated because the police had identified a potential offender, but did not yet consider the case to be solved.

Distances and Addresses

As one of the most important components of this research is to find the distances involved in contacting, murdering and disposing of the victim's body, the case must include addresses so that the crime could be mapped. This means each case file must list the victim and offender's address, point of initial contact, murder and disposal location. For a number of the murder and disposal locations there was no set address as these locations were often in secluded or wooded areas. However, in most case files there was a distance recorded from both the murder and disposal site. It was often the case in HITS reports for the location of the murder and disposal site that the case report would list a potential 20–40 mile range in which the body was found. One report stated that the victim was found 50 to 70 miles from the victim's residence. For the purposes of this research any distances that were approximated were not included in the research.

Eliminated Cases

In both the Canadian and the Washington State data, cases were eliminated. In Canada there were a total of seven cases eliminated and in Washington State there were 17 cases eliminated from the study. The criteria for each being eliminated are listed below in Table 1.

Table 1: Eliminated Cases

Reason	*Number of Cases*	*Canadian or Washington State*
Age was not identified	1	Washington
Offender Related to Victim	2	1 Canadian, 1 Washington
Victim was a prostitute	2	1 Canadian, 1 Washington
Addresses Missing from Report	4	Canadian
Total Distances Not Obtainable	14	Washington
Case Not Solved	1	Canadian

Coding Procedure

Canadian and Washington State Data

As the data in ViCLAS and HITS were not compatible with Microsoft Excel ®, the data were complied and then transferred into Excel ®. From this, the data were graphed to see if any general patterns or trends emerge. As well, statistical operations such as the mean and median were determined for some of the data.

After analyzing each of the cases to see whether they matched the list of criteria, there were 42 cases in Canada and eight cases from Washington State. The Canadian cases were analyzed separately from the Washington cases because of the differences in the data included in the ViCLAS and HITS reports. These differences will be discussed in more detail later in this chapter. As well, it was felt that a comparison between the two countries would provide a better analysis of the distances involved in non-familial homicide.

In regards to the Canadian cases, not every province and territory is represented in this study, however it is still maintained that the cases included provide an adequate look at stranger homicides in Canada. The following provinces provided cases which were included in this study: British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, New Brunswick, and Newfoundland. There were 20 cases from British Columbia which

occurred in Vancouver, Coquitlam, Surrey, New Westminster, Maple Ridge, Mission, Kelowna, Duncan, and Sechelt. There were six cases in Alberta which occurred in Edmonton, Lethbridge, Highlevel, Golden and Taber. The two Saskatchewan cases both occurred in Saskatoon. Manitoba had three cases that happened in Gimli, The Pas and Winnipeg. The nine Ontario cases happened in Toronto, St Catherines, Timmins, London, Mississauga, St.Thomas and Ottawa. The one case from New Brunswick occurred in Fredericton. Finally, there was one case from Newfoundland that took place in Corner Brook. The cases in Washington State occurred in Bremerton, Marysville, Longview, Kent, Spokane and Eatonville.

Once the ViCLAS and HITS data were separated, the cases were put into age groupings. In this study, depending on the age of the victim, he or she would be put into one of three categories, which were child, young adult or adult. In order to be in the grouping labelled child, the victim had to be age 12 and under. The limit was set at age 12 due to the change in physical and behavioural dynamics when the child is over this age. Previous research provides confirmation that the selection of a victim over the age of 12 probably differs from that of a victim under 12 due to the change in dynamics (De Young 1982: 97-98). In this category, the sex of the victim was not a factor for elimination because victim selection is based on the fact they are children rather then on their sex. Thus, both male and female victims were included in this category. In total, there were 20 cases included in the child category.

The next category is young adult, in which 16 cases were included. Victim's ages in this category range from age 13 to 17. This age range was selected because sexual characteristics differentiate them from young children, yet members in this group are still

likely targeted due to their vulnerability and the offender's ability to assert mental and physical control over them. The final category was adult, which included six victims aged 18 and over. It should be noted that in the child (2), young adult (11) and adult (1) categories there were 13 victims who were murdered by two serial killers. While most cases were analyzed together, some sections assess the serial killers victims separately. These sections will be addressed later.

As noted above, the gender of the victim for the child category was not a criterion for elimination. After all the cases were gathered there was only one male victim in this category. The victim had just turned 13 and the offender was known for selecting young victims, which matches the types of crimes being analyzed in this study. However, for the adult category it was decided that only female victims would be included in the research. The main reason for excluding male abductions that end in homicide is because they most often occur in relation to other offences such as gang and drug violence, which have dynamics that affect the motivation for the offence, distances travelled and victim selection.

The demographic factors that were examined in this study were the victim's age and gender, and the offender's age. As previously noted, the offender's gender was not examined in this study, as all of the offenders were male. The victim's age and gender were graphed separately for the three Canadian age categories. The Washington State data included cases only for the child and adult category. Thus, there is no comparison with the Canadian data in regards to age of the victim in the young adult category. The offender's age for the three Canadian categories and Washington State are all graphed

together. Note that the serial killers ages are only included once in the analysis, which is why there appears to be fewer offenders than cases.

The temporal factors addressed in this study are the time of day and day of the week that the attack occurred, how long the victim was with the offender before being killed and the time it took to locate the body. Time of day is referring to the approximate time that the victim was abducted by the offender. Time of day and day of the week were included in the HITS report, thus allowing for a comparison with the Canadian data. However, the time before being murdered and body recovery is not provided in the HITS database.

The different spatial areas that were analyzed in this study are the area of initial contact, murder and disposal site. The activity the child was engaged in prior to the attack was also included in the spatial data. The area of initial contact is referring to the location where the offender and victim first came into contact on the day of the attack. The murder site is the area where the victim was killed. The disposal site is the final place where the offender left the victim's body. This area is the same as the murder site for some cases and a different location for others. It should be noted that in both the child and young adult category there were two serial killers included, with 13 victims between them. Based on case analysis, for the above listed factors, these cases were included with the other non-serial killer cases. In regards to the spatial data for the Washington cases, the definitions for victim activity and area of initial contact are different from that in ViCLAS, so for the purpose of this project these factors were not analyzed in the Washington State cases. In HITS the area of initial contact is referring to where the victim was last seen, and not where the victim and offender came into contact

with each other. However, the murder location and disposal site had the same definition as ViCLAS, so these factors were analyzed for comparison.

There was also a focus on a number of factors relating to the disposal site. The first factor was whether or not the victim was moved from the murder site to a new location, and why this did or did not occur. This included looking at whether or not the offender was concerned with the body being found or if there was a lack of concern for the body being discovered. In addition, there was also a look at how the offender was familiar with the disposal site. This refers to the idea that the offender was familiar with the area because he lived close by, used the area recreationally, worked nearby, or engaged in other routine activities. As well, whether or not the offender pre-planned or chose the disposal site out of convenience was also examined. For these variables, serial killing cases were analyzed together with the young adult single cases. In relation to the different factors in disposal sites for the Washington cases, none of this information is included in the reports and could not be analyzed.

As distances are one of the most important factors to be addressed in the study, there are a number of different distances that were examined. All of the cases were mapped in Microsoft MapPoint ® so the distances could be measured. All the distances were measured "as the crow flies", which is a straight line drawn and measured from one location to another, or the shortest distance (Rossmo, 2000: 257). The rationale for this was that it was unknown what routes the offenders took to meet, murder, and dispose of the victim. It was felt that to make a guess at the chosen route would be inappropriate and result in inaccurate accounts of the distances. As noted by Canter, "...crow-flight distance estimates correlate better with both actual distance and actual time to travel..."

(Canter, 1977: 90). These include: victim's residence to offenders residence, victim's residence to initial contact scene, victim's residence to murder site, victim's residence to disposal site, offender's residence to contact site, offender's residence to murder site, offender's residence to disposal site, contact site to murder site, contact site to disposal site, murder site to disposal site. The distances were studied in two categories which were offenders who live in populations under 50,000 and offenders who live in populations over 50,000. Although a population of below and above 50,000 people is not the defining line between small and large cities, it illustrates how population density affects distances travelled. The serial killings cases were also analyzed separately because serial killers are known to take extra precautions in disposing of victims' bodies, which may result in them travelling longer distances (Ressler & Shachtman, 1992: 120). In addition, this also allowed for a comparison between single and serial killers. For the distances, the Washington data did not differentiate between the murder and disposal site. Therefore, all distances in the Washington cases are measured to disposal site.

The final factor that was examined in the Canadian and Washington State data were whether or not the victim was sexually assaulted during the course of the murder. This was addressed to find out how many of the victims were abducted and killed for sexual purposes. The graphs for the above factors are all included in Chapter Four.

CHAPTER FOUR: RESULTS

This chapter will discuss the results from the data collected in ViCLAS and HITS. HITS data are not discussed in every figure and table because the information was not available. In some of the ViCLAS reports there was missing information for some factors, such as if the person was murdered in a separate area from the disposal site. The unknown information will be noted when that variable is discussed. In addition, one case in the child category consisted of two victims being killed on the same occasion, thus victim demographics were the only variables included for both victims. This case will hereafter be referred to as the double homicide. For the young adult and child category, as previously mentioned, there are victims of two serial killers. For some variables, these victims will be analyzed separately. Only results where findings were significant will be briefly discussed. A more detailed discussion of the results will occur in chapter five.

Victim and Offender Demographics

The child's age for both the ViCLAS (n=20) and HITS (n=4) data are listed in Figure 1. The average age for both the Canadian and Washington state victims, was age eight. In the Canadian category, the majority of the victims (11) were between the ages of eight and 10. Indicating that children's risk of being victimized dramatically increases as the child reaches school age. The majority of child victims were female (17). In Figure 2, the ages of the Canadian young adult victims (n=16) are graphed. The average age of the victims in the grouping is 14. When looking at the victims of serial offenders and single offenders separately, the average ages are 14 and 15 respectively. Although

male victims were eligible to be in the young adult category, only one male ended up being included. The ages for the adult victims from Canada (n=6) and Washington State (n=4) are set out in Figure 3. The mean ages for the two data sets are similar, for Canada it is 29 and for Washington state 27.

Figure 1: Victim's Age (Canadian and Washington State Child)

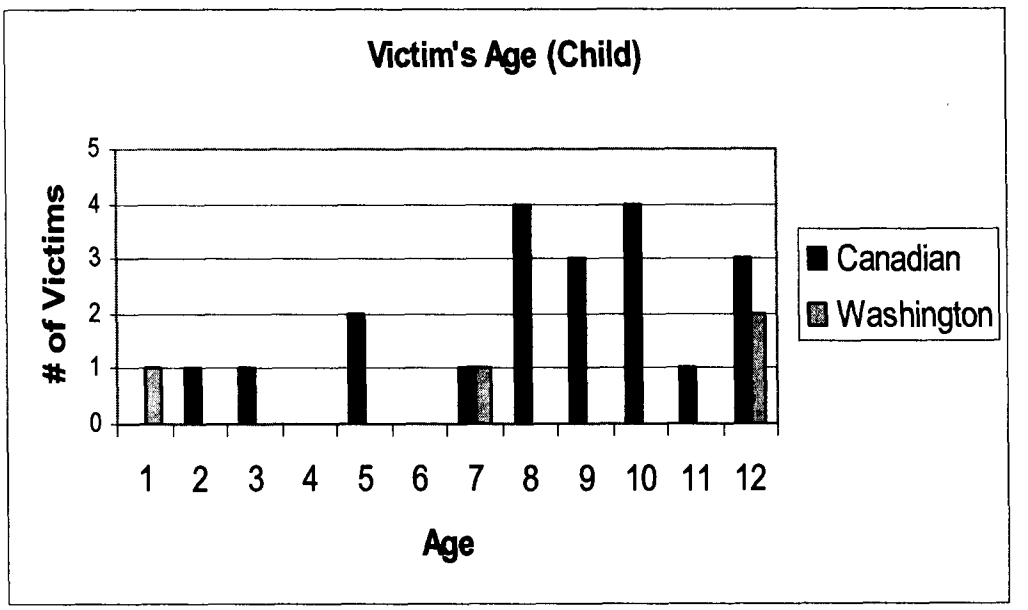


Figure 2: Victim's Age (Canadian Young Adult)

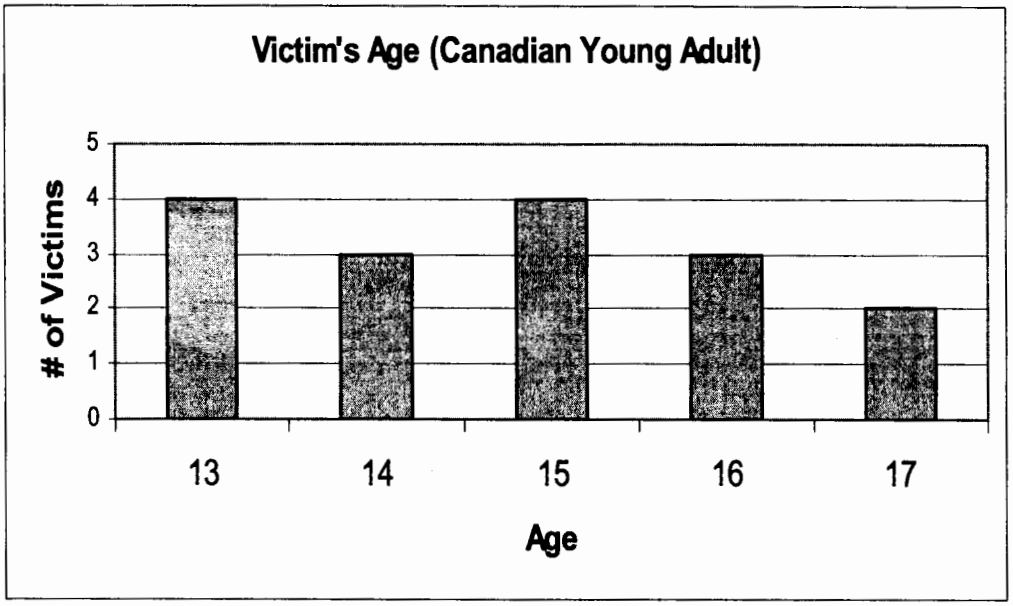
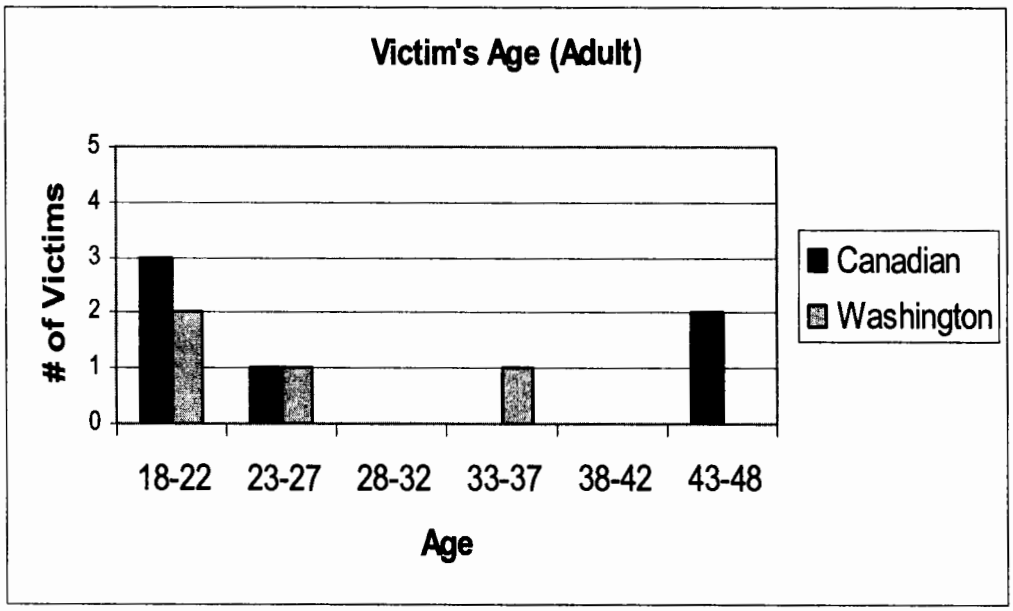


Figure 3: Victim's Age (Canadian and Washington State Adult)



The offender's ages, listed in Figure 4, for the ViCLAS data (n=33) ranged from 18-46, with a mean age of 29 for child victims, 31 for young adult, and 28 for adult. Note, that this category includes two serial offenders and one offender who killed two victims during the commission of the crime. It appears that offenders tend to be older

then the most common ages that males commit criminal offences (age 18-24). It also appears that offender's ages do not vary much when it comes to selecting different aged victims. On the other hand, the ages from the Washington State data (Figure 5) average at 25, which is slightly younger then the Canadian offenders. However, it must be noted that this represents a sample size of eight offenders and may not be an accurate picture of male murderers in Washington State.

Figure 4: Offender's Age (Canadian)

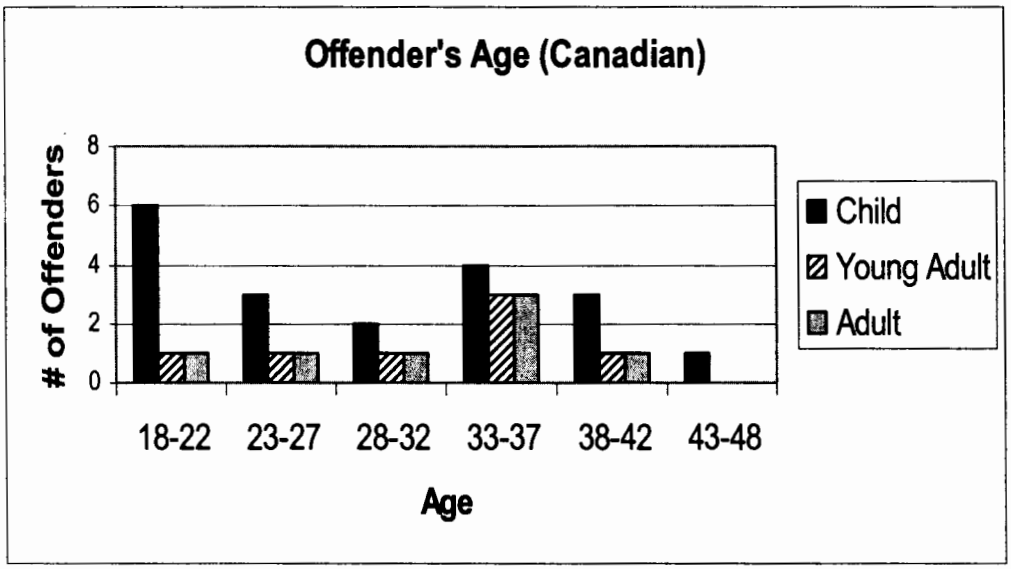
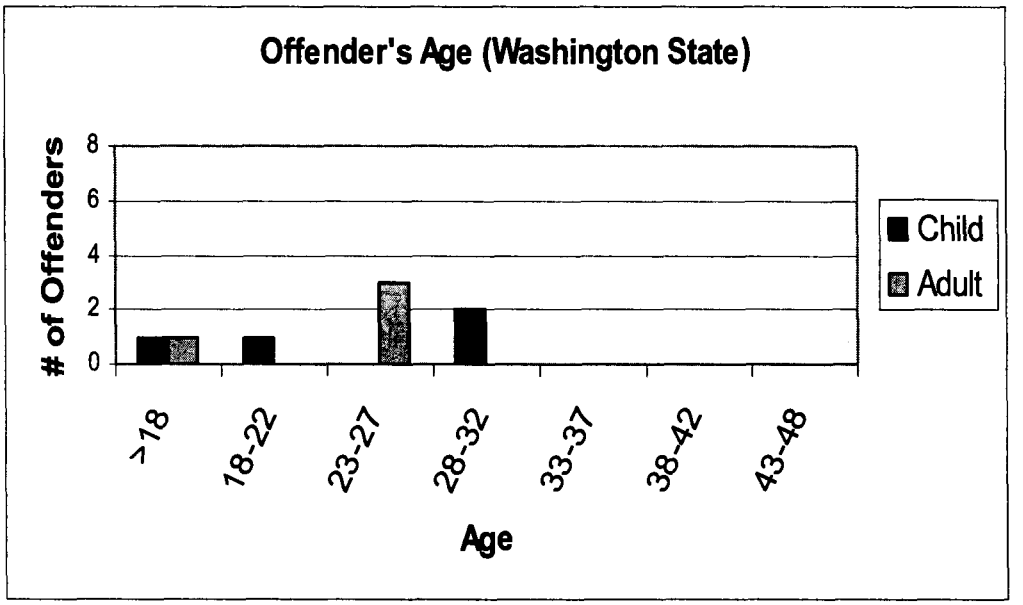


Figure 5: Offender's Age (Washington State)



Relationship

The most common relationship in the cases from ViCLAS was stranger (80 percent). A total of 13 percent were acquaintances and 7 percent were classified as "other". Other includes one friend, one neighbour and one ex-boyfriend. In the ex-boyfriend case, it should be stressed that the victim and offender had been separated for a significant period of time. The victim was not sought out by the offender to be killed, but rather the offender ran into the victim walking down the street and ended up killing her as an accident. In contrast, the HITS data included cases that were predominately acquaintances (4).

Temporal Variables

From the Canadian data (n=39), it was apparent that the majority of offences (26) occurred between the hours of 8am to 7:59pm. This information is listed in Figure 6. For two of the cases the time of abduction is not listed on the ViCLAS report. As one of

the cases included a double homicide, this was counted as one incident in the analysis. The results showed that in the child category, 15 percent, and young adult category, 53 percent, occurred during school hours. It was also found that 60 percent of child victims and 75 percent of young adult victims were abducted on weekdays (Figure 8). For adult victims, the highest risk of being victimized was after normal work hours (3-12pm). The Washington State results, Figure 7, appear to resemble the Canadian in that they occur later in the day (after 3pm) however due to the small sample size it is difficult to assess an overall picture when victims have the highest risk. Similar to the Canadian data, the majority of offences (6) took place during weekdays. These results are listed in Figure 9.

A couple of variables that were not graphed but are important to mention are the time before the victim was killed and how long before the victim's body was found by investigators. For Canadian children (n=17), they victims with the offender for a mean of two hours before being killed. One victim is not included in this analysis because she was held by the offender for almost two days before being murdered. For two victims, it was unknown how long they were with the offender before killed. In the young adult category (n=14) the victims were alive for a slightly longer period of four hours (mean). This is not including two victims who were held for two days before being killed. Adults (n= 6) were held for a slightly longer period of time before being killed. The average time was approximately five hours.

The time it took to locate the body was one of the more disturbing results. It took, on average, 14 days to locate child victims (n=17), 52 days to locate young adult victims (n=11), and 45 days to locate adult victims (n=6). For 1 child victim the time of body

recovery was not listed in ViCLAS. For the child and young adult victims, seven victims were not included in this analysis for reasons that cannot be disclosed.

Figure 6: Time of Day (Canadian)

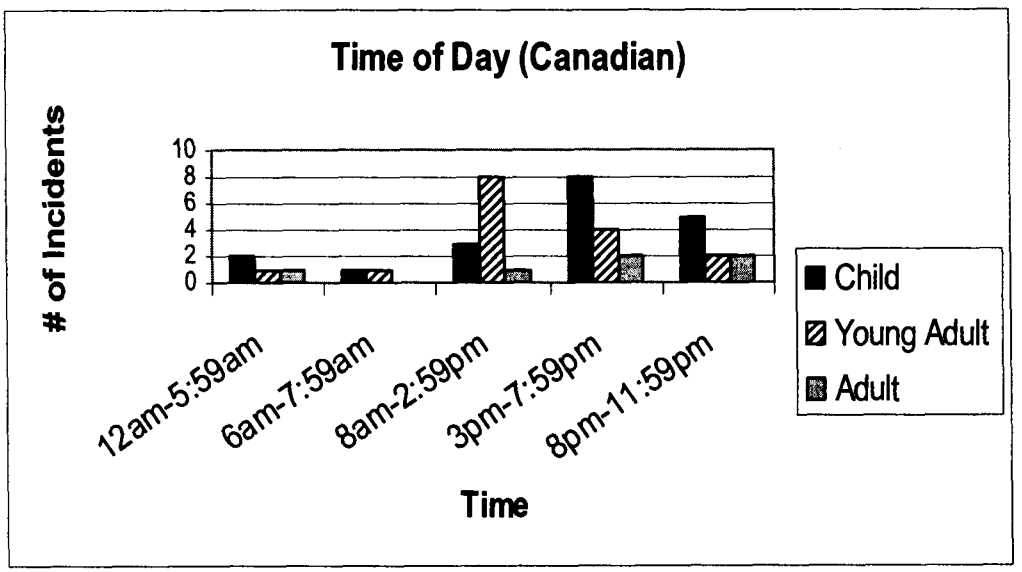


Figure 7: Time of Day (Washington State)

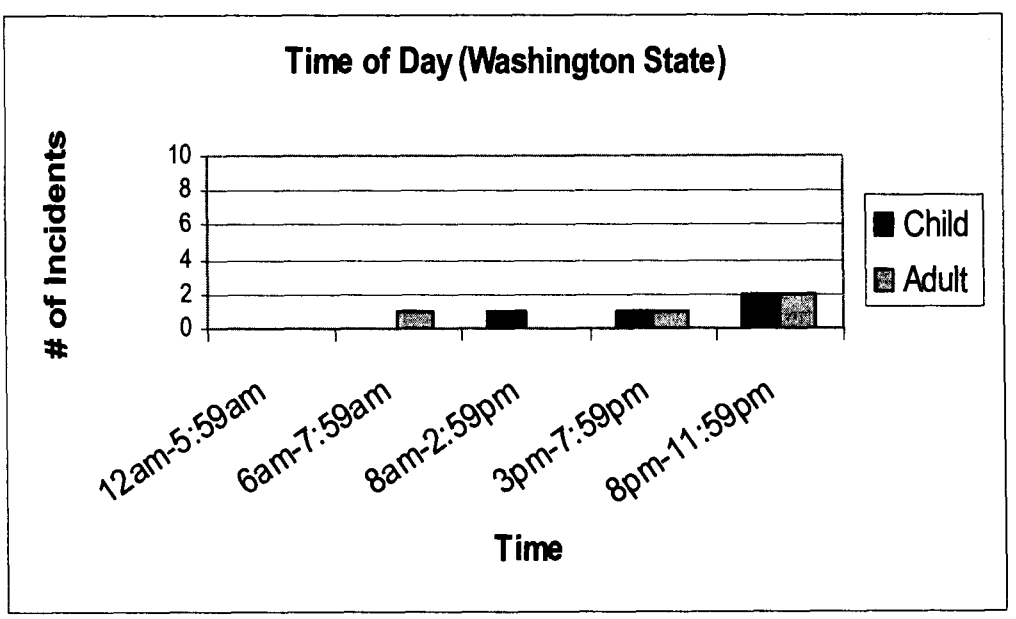


Figure 8: Day of the Week (Canadian)

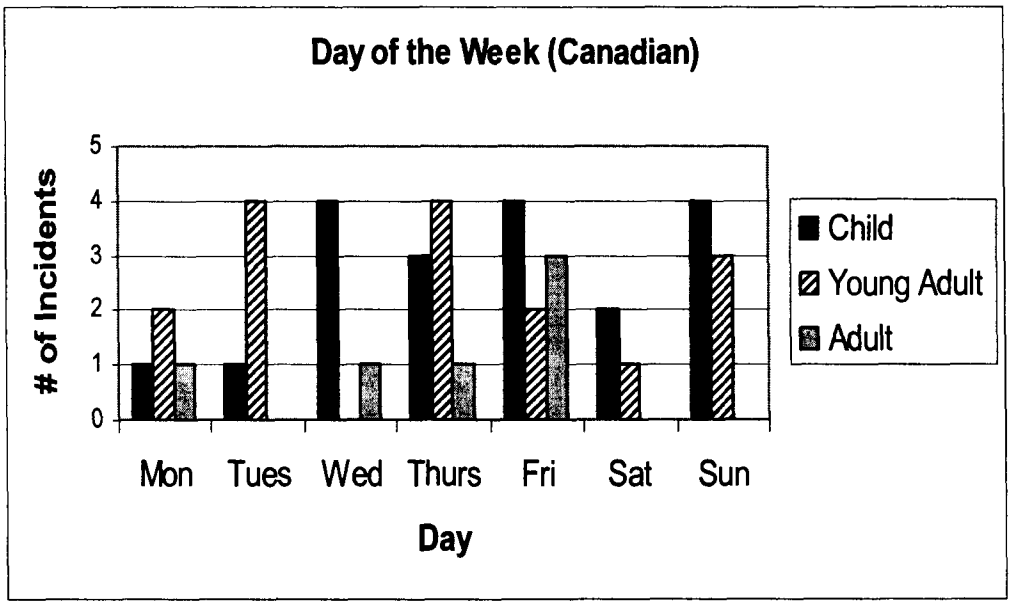
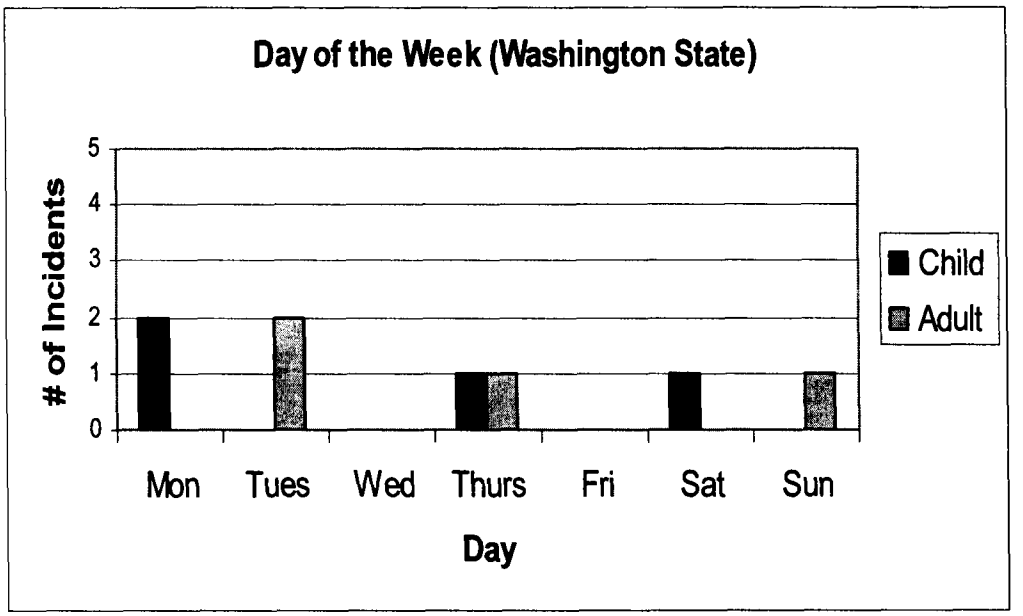


Figure 9: Day of the Week (Washington State)



Spatial Data

Figure 10 shows the activity that the child victim was involved in prior to being abducted. For the child category (n=19) the most predominant activity (57 percent) was being inside or outside but in close proximity to the victim's home. As previously

mentioned, one victim was not included in this analysis because it was a double homicide. The victims were taken at the same time and place and it was felt to include both victims would result in an overrepresentation of certain times and places. However, the victim was also taken from an area that was very close to her home. Twenty-five percent of the victims were abducted on their way to or from school or a friend's house. In one case, a victim was abducted while outside a store waiting for her father. All the children were engaged in activities where most would think the child is relatively safe, except one where the victim was hitchhiking.

Similar to child victims, young adult victims were also engaged in what appeared to be relatively low risk activities. Half of the victims were travelling to school or a friend's house, one victim was delivering newspapers, and another was out for an afternoon jog. However, in 25 percent of the cases, the victim was engaged in a higher risk activity, hitchhiking. It should be noted that none of these individuals were the victims of serial offenders. Correspondingly, for adult victims, half of them were walking to work, the store or a friend's house, and only one was engaged in a high risk activity. These results are illustrated in Figures 11 and 12.

Figure 10: Victim's Activity Prior to Attack (Canadian Child)

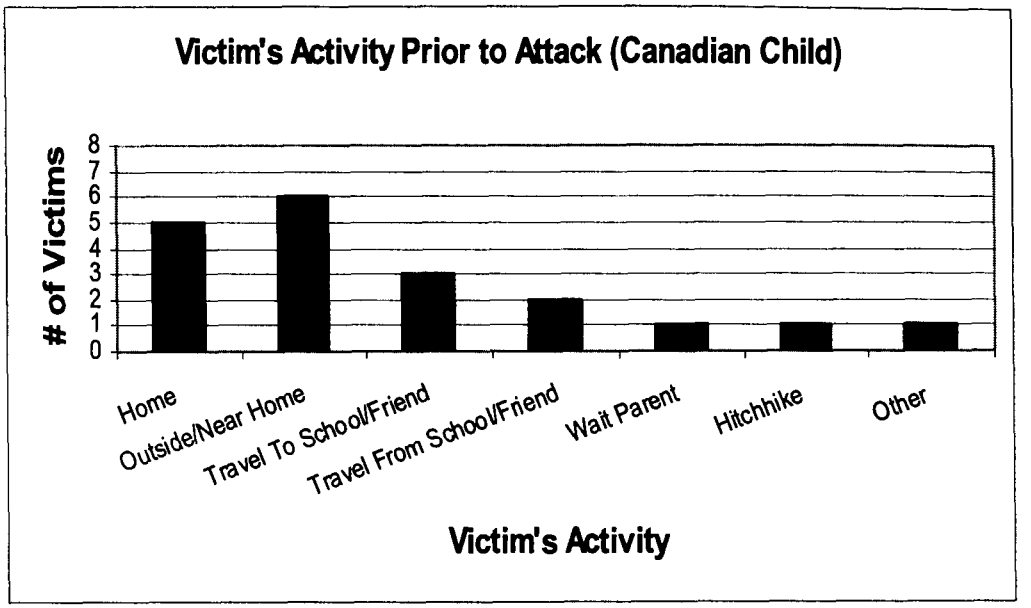


Figure 11: Victim's Activity Prior to Attack (Canadian Young Adult)

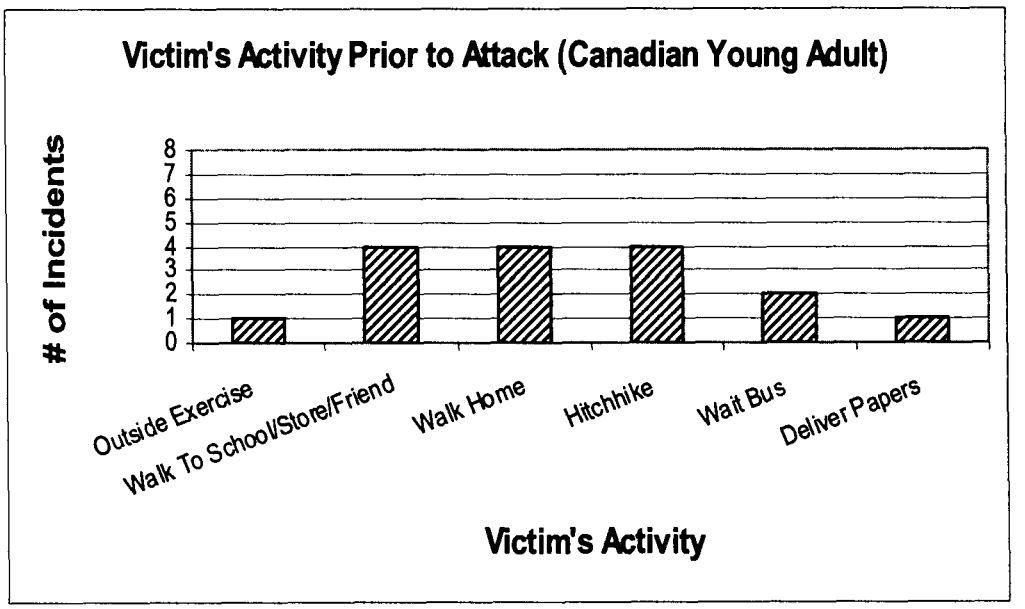
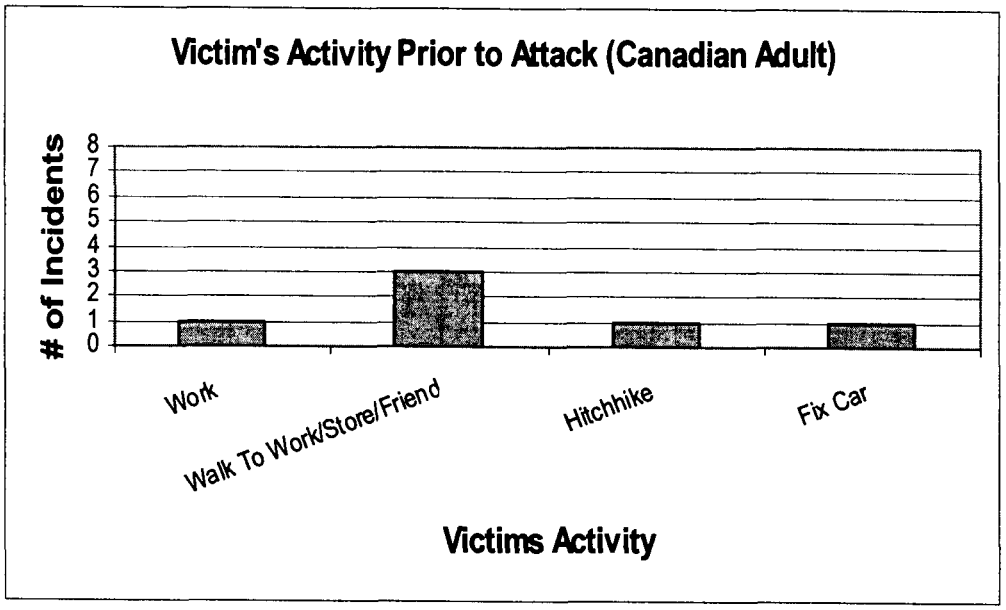


Figure 12: Victim's Activity Prior to Attack (Canadian Adult)



The area that most children were abducted from was the victim's residence (36 percent). The second most common area that children were taken from was a public street (6 cases). For young adults and adults, this was the location where the majority of victims were abducted, 87.5 percent and 66 percent respectively. This shows that, in the majority of cases, the victims were taken from areas where there was a possibility for a third-party to witness the abduction. Considering the hours that most victims were abducted, this is even more likely. These results are shown in Table 2.

Table 2: Area of Initial Contact (Canadian)

Area of Initial Contact			
Area	Child (Cdn)	Young Adult (Cdn)	Adult (Cdn)
Victim's Home	7	0	0
Offender's Home	2	0	0
Public Street	6	14	4
Parking Lot	1	0	1
Park	1	0	0
Secluded Road	1	1	0
Pond	1	1	1

The most common areas where a victim was murdered were in outdoor secluded and isolated areas (Table 3). The numbers show that in 78 percent of child, 62 percent of young adult, 83 percent of adult, and 80 percent of Washington State cases the victim was taken to an area that is isolated and secluded. In 26 percent of child victims and 50 percent of young adult victims, they were killed in wooded or forested areas. This is not to say that the remaining victims were killed in public areas. In fact, the other victims were killed in either the offender's home or vehicle. Thus, in all cases the victim was not killed in an area that is likely to be easily observed by a third party.

In regards to the disposal site the preferred location was isolated and secluded. The most common place that victims (19) were disposed in was a wooded or forested area. This incorporates both Canadian and Washington State cases. The locations chosen by the serial offenders were no different then single offenders, so these were analyzed together. The differences between the two types of offenders lie in the distances travelled, which will be discussed later. In one case the victim was discovered in the offender's car, however this was due to the fact that the offender was pulled over by the police for driving a vehicle with a stolen licence plate. It was suspected by police

that given the route the offender was travelling on, that he was headed towards a wooded area. In a second case, the victim was discovered in the offender's residence. This occurred because the offender fell asleep and upon awakening realized the victim was dead so consequently told his parents what had happened. This illustrates the idea that most offenders prefer to dispose of their victims in outdoor areas which are irregularly frequented (Table 4).

Table 3: Murder Location (Canadian)

		Murder Scene	
Area	*Child (Cdn)*	*Young Adult (Cdn)*	*Adult (Cdn)*
Wooded/Forest	5	8	0
Field/Farm Land	4	0	2
Vehicle	1	3	0
Offender Home	3	3	0
Parking Lot	0	0	1
Secluded Road/Path	3	1	1
Nature Reserve	1	0	1
Dump	1	1	0
Other	1	0	1

Table 4: Disposal Site (Canadian & Washington State)

		Disposal Site			
Area	*Child (Cdn)*	*Young Adult (Cdn)*	*Adult (Cdn)*	*Child (WA)*	*Adult (WA)*
Wooded/Forest	6	10	0	2	1
Field/Farm Land	4	0	1	0	0
Vehicle	1	0	0	0	1
Offender Home	1	1	0	1	0
Parking Lot	0	0	0	0	0
Secluded Road/Path	0	3	3	0	1
Nature Reserve	1	0	1	0	0
Dump	1	1	1	0	0
Lake/River	4	1	0	0	1
Other	1	1	0	1	0

The Disposal Site

One of the first factors that was analyzed in regards to the disposal site was how the offender was familiar with the area. In the child category (n=19), 21 percent of areas were known because of recreational activities engaged in by the offender, 16 percent of areas were travelled through on a regular basis, 5 percent were known from a previous crime, 11 percent of areas were sought out, 36 percent of the areas where close to the offenders home and 11 percent were unknown. Not including the unknowns, 47 percent of the victims were disposed of in an area close to (within 5 km) the offender's residence. The cases in which the area was sought out was committed by one of the serial offenders who had made a job out of picking areas that would be ideal for disposing of victims' bodies.

For the young adult category, 13 percent of areas were known from recreational activities, 6 percent from travelling, 13 percent from previous crimes, 24 percent were sought out, in 25 percent the offender lived nearby and 19 percent were unknown. The areas that were sought out were by the same serial offender in the child category. Two of the areas in this category, previous crimes, were familiar to the offender because he had spent jail time in the area and had decided it would be a good location to dispose of bodies.

For adults, in one case the offender knew the area from his travels, one area was sought out (same offender as other two categories), three lived nearby and one is unknown. Thus, for all three categories, the majority of sites were chosen because it was near the offender's residence. Excluding the offender who specifically sought out crime sites, all of the victims' bodies were disposed of in areas that were familiar to the

offender. In cases where the offender's knowledge of the area was unknown, it was because investigators did not ask the offender why they chose that location and in one case the offender killed himself before the question could be asked. These results are graphed in Figures 13-15.

Table 5: Disposal Site Definitions

Disposal Sites	***Definitions***
Recreational	Hunting, Camping, Exercise Area
Travel Through	Driving to/from Home, Work, Friends
Other Crimes Committed	Auto Theft, Imprisoned in Area
Sought Out	Offender searched for Best Area
Lived Nearby	Lived Close to Disposal Site
Unknown	Offender Not Asked

Figure 13: How Offender Familiar with the Disposal Site (Canadian Child)

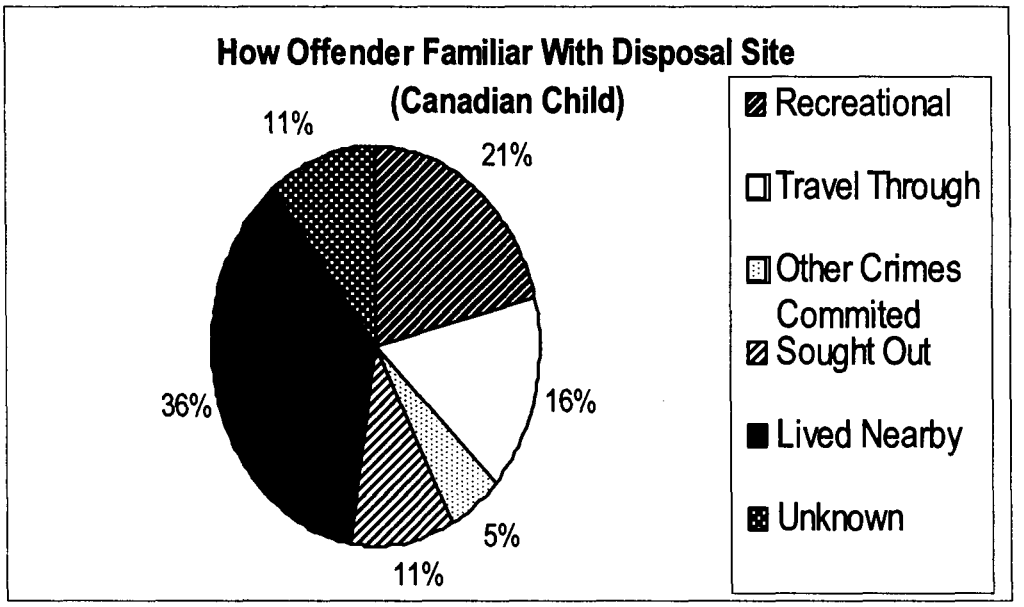


Figure 14: How Offender Familiar with Disposal Site (Canadian Young Adult)

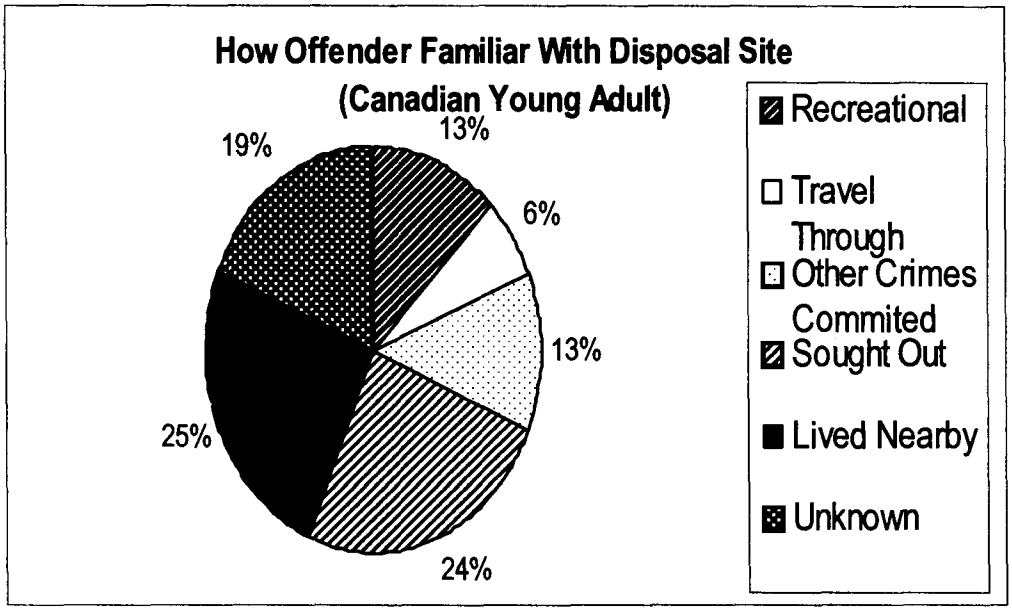
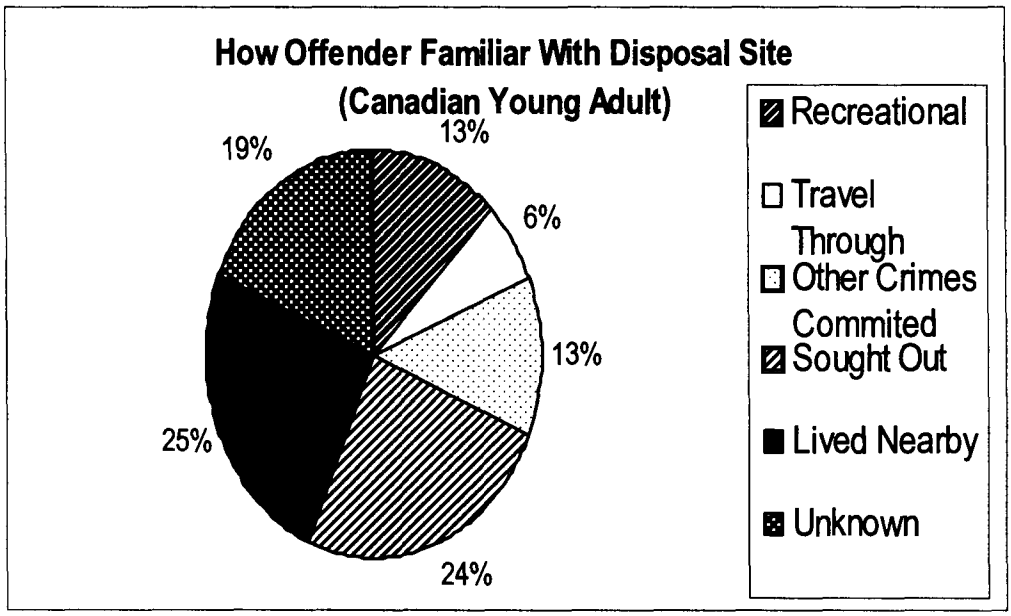


Figure 15: How Offender Familiar with Disposal Site (Canadian Adult)



In over half of the cases included in ViCLAS (61 percent), the offender had chosen the disposal site before committing the crime. In 22 percent of the cases the site was chosen during the commission of the crime. The unknown cases are a result of the offender not being asked when he chose the disposal site. For the serial offenders, all of

the locations were chosen before the offence occurred. These findings are graphed in Figure 16.

There is a fairly even distribution of victims that were and were not moved after the murder took place (Figure 17). Forty-three percent were moved and 36 percent were not moved. However, even though not all of the bodies were moved, almost all of the bodies were concealed either through burial or covering-up the body with twigs and branches. Of the few bodies that were not concealed, almost all of these can be attributed to the one serial offender who, near the end of his crime spree, felt that he would not be caught and also that the areas he had chosen were so far away that not many people would frequent these sites. The findings for Washington State are fairly even across the board, and can be found in Figure 18.

Figure 16: How Disposal Site Chosen (Canadian)

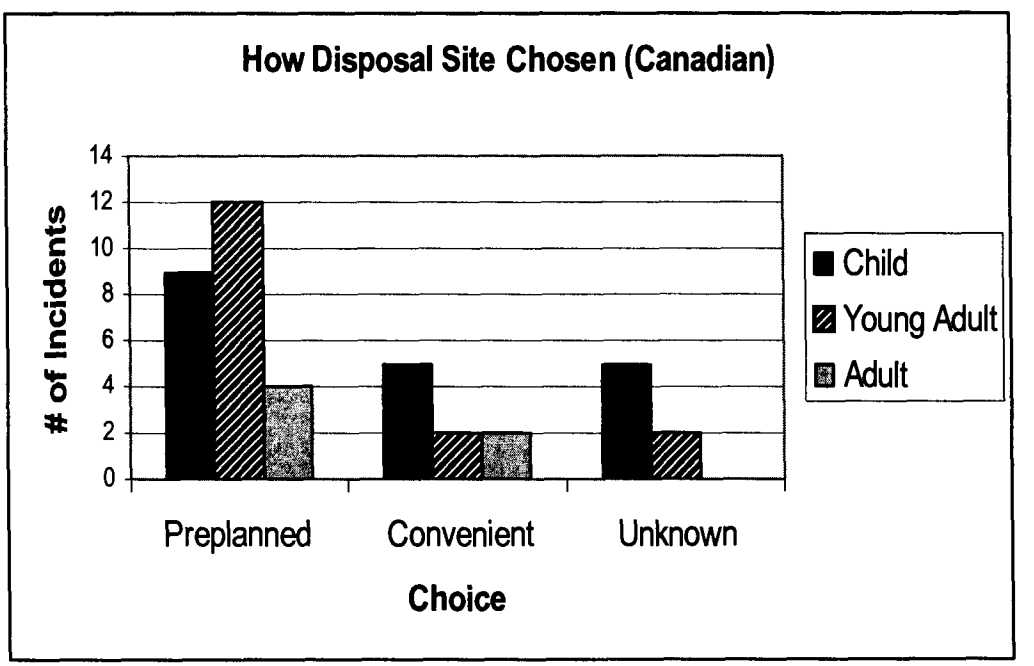


Figure 17: Movement of the Body after Death (Canadian)

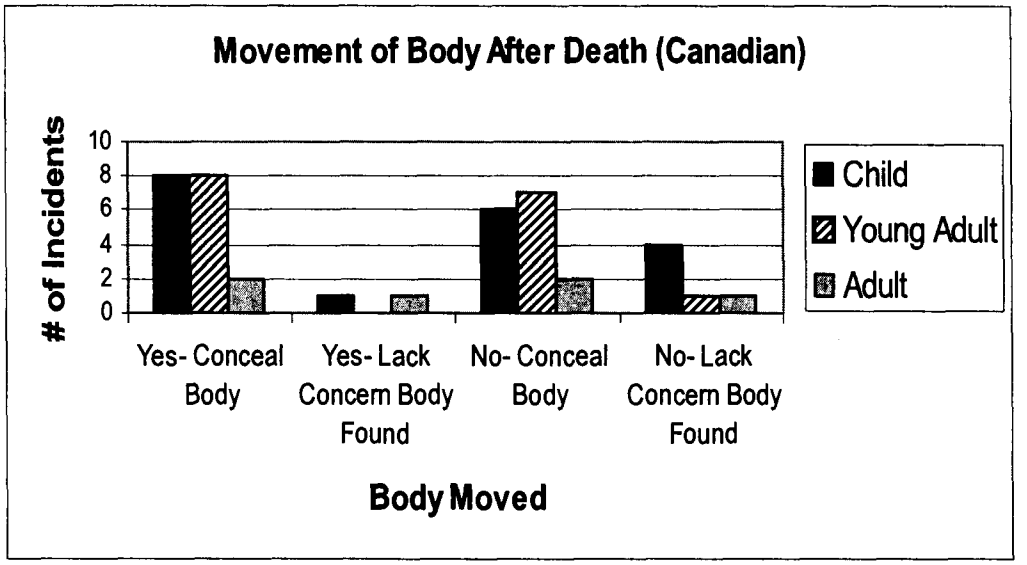
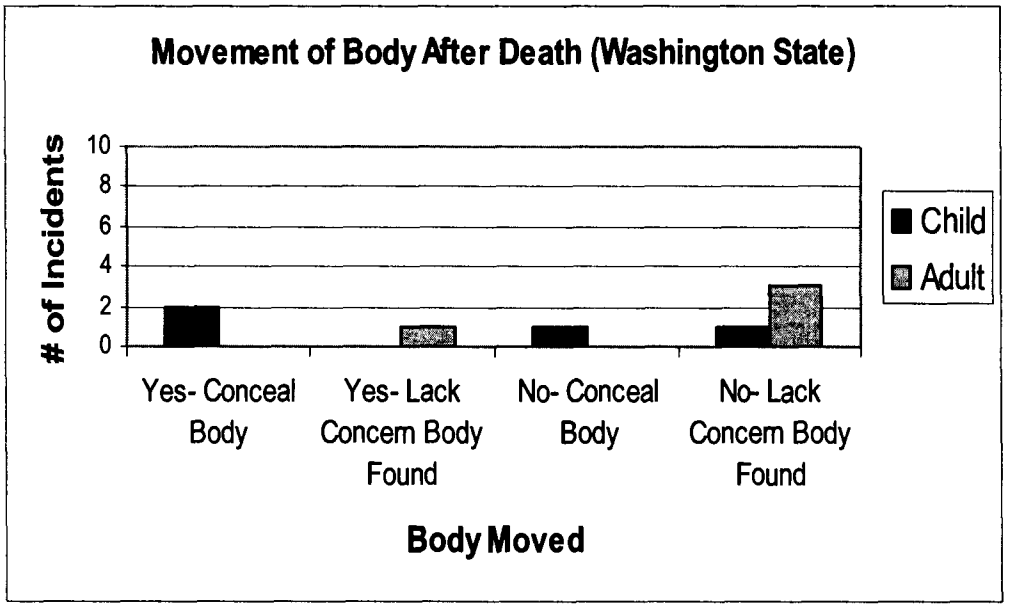


Figure 18: Movement of Body after Death (Washington State)



The Distances

Children

The first category to be discussed in respect to distances travelled is Canadian children (n=18). Two of the children were victims of a serial offender, so they were

analyzed in a separate category. In cities with populations of over 50,000, 75 percent of the offenders lived within 5 km of the victim and in populations under 50,000 66 percent lived within 5 km. For the larger populations almost half of the victims lived within 1km of the offender. The average distance for the larger populations was 4 km from the victim's to offender's residence. These distances are graphed in Figure 19. It was found that when considering the distance travelled from the victim's residence to point of initial contact (Figure 20) all of the children were contacted within 3 km of their home and 83 percent came into contact with the offender within 2 km of their home. In fact, the average for both populations over (larger) and under (smaller) 50,000 people was 0.6 km and 0.9 km respectively.

The significant differences between population sizes occurred in the distance to the murder and disposal site. The average distance for the larger population was 26 km from the victim's residence to murder scene and for the smaller population it was 22 km. However, when looking at the graphs (Figure 21) 64 percent of the victims lived within 10 km of the murder scene, and 66 percent of the victims in the smaller populations lived over 16 km away from the murder scene. In regards to the disposal site (Figure 22), 50 percent of the victims in the smaller population were disposed of in locations over 25 km away from home and for the large populations only 16 percent were found 25 or more kilometres from home.

The average distance from the offender's residence to point of initial contact (Figure 23) was 7 km. The mean for the smaller population was 12 km and for larger populations was 4 km. This indicates that offenders in smaller populations have to travel farther to locate potential victims. The distance to the murder scene from the offender's

residence (Figure 24) averaged 4 km. For one victim in the larger population, the distance between the offender's residence and murder scene is not included, because it is unknown if the victim was moved from the murder to disposal site. When splitting up the population's sizes, the average distance was 24 km for smaller populations and 4 km for larger populations. In effect, 83 percent of the offenders lived over 16 km from the murder scene in the smaller cities and 80 percent of offenders in larger cities lived within 5 km of the disposal site. There were similar findings in regards to the distance from the offender's residence to the disposal site (Figure 25). In the smaller populations, the offender averaged a total distance of 26 km to the disposal site and for the larger populations the average was 11 km. This includes 67 percent of the cases having a distance larger then 16 km between the offender's residence and the disposal site in smaller populations. The largest city in this study, Toronto, with a population of almost 2.5 million had the offenders who travelled the least amount of distance to dispose of their victims. This also indicates that if the body is moved after being murdered, that it is generally moved to a location that is farther away from the offender's residence.

When looking only at the distances involved in the crime there was also a difference in the distance the offender travelled between the larger and smaller populations. One victim was not included in the contact scene to murder scene and murder scene to disposal site because they were not known. The average distance for the smaller populations was 22 km and 29 km from the contact scene to the murder and disposal site. In larger cities, the distances were smaller at 10 km and 13 km respectively. The distance from the murder to disposal site also varied. In the larger cities the body was moved an average of 4 km and for smaller cities it was 15 km. Thus,

for all of the distances in smaller versus larger cities, it appears that offenders are travelling farther in smaller cities and less in larger cities. These are graphed in Figures 26-28.

Figure 19: Distance from Victim's to Offender's Residence (Canadian Child)

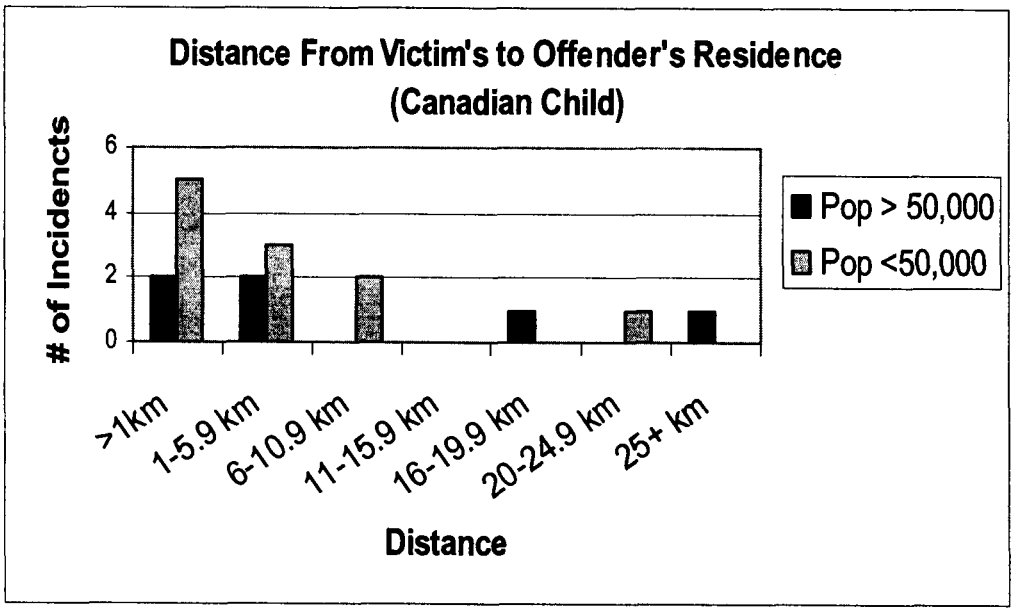


Figure 20: Distance from Victim's Residence to Point of Initial Contact (Canadian Child)

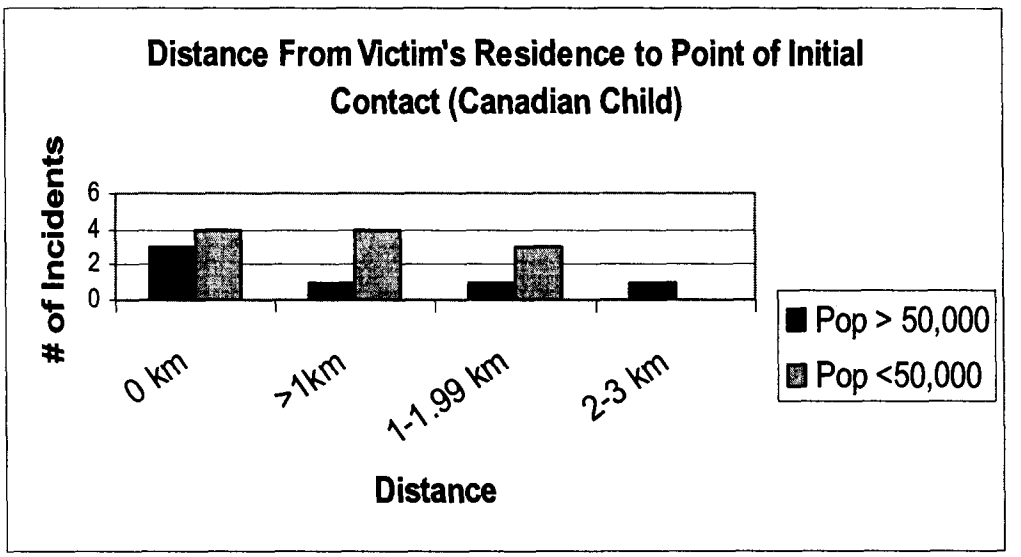


Figure 21: Distance from Victim's Residence to Murder Scene (Canadian Child)

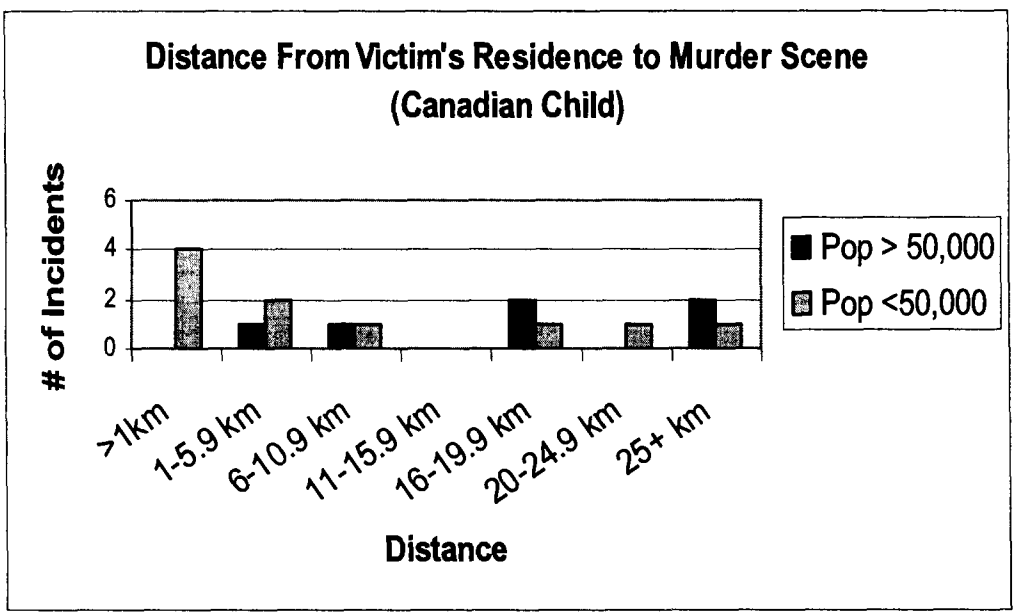


Figure 22: Distance from Victim's Residence to Disposal Site (Canadian Child)

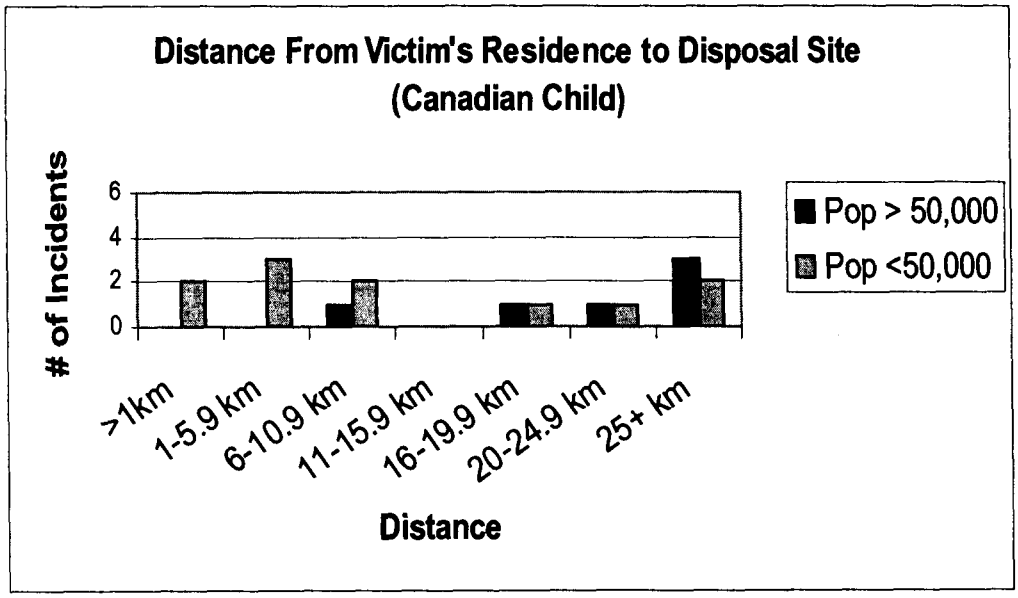


Figure 23: Distance from Offender's Residence to Point of Initial Contact (Canadian Child)

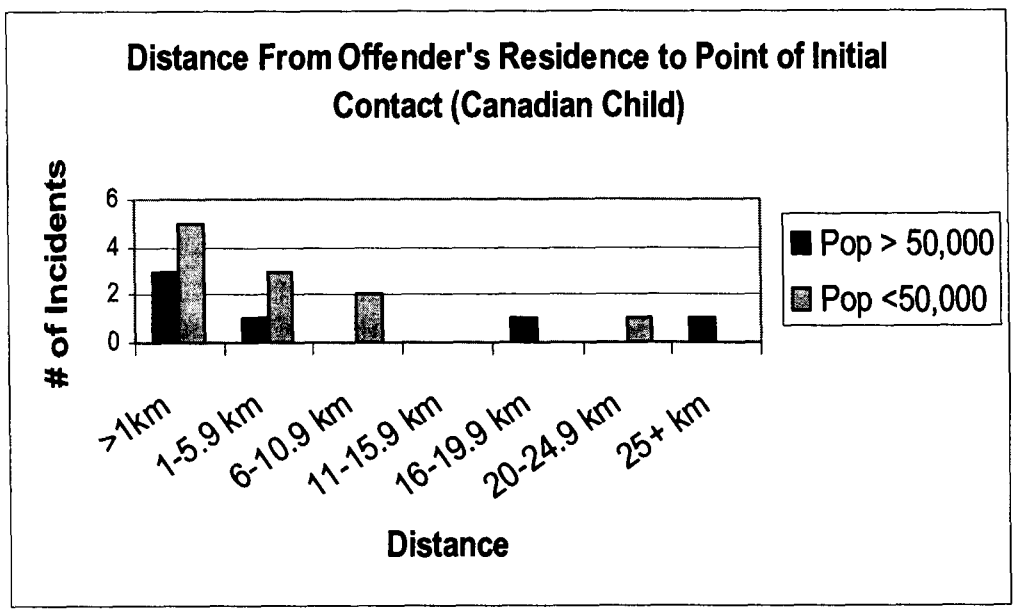


Figure 24: Distance from Offender's Residence to Murder Scene (Canadian Child)

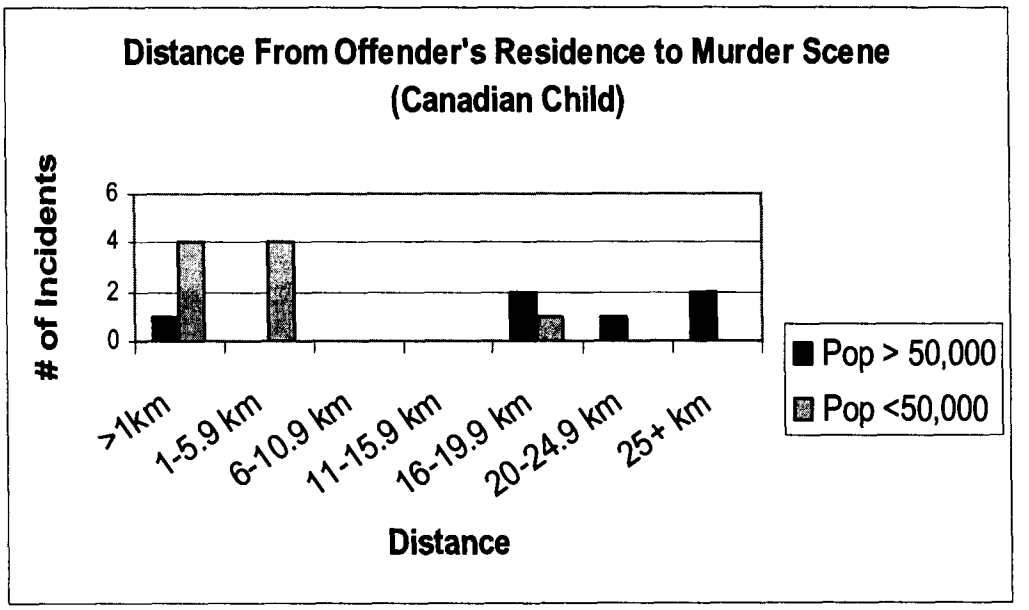


Figure 25: Distance from Offender's Residence to Disposal Site (Canadian Child)

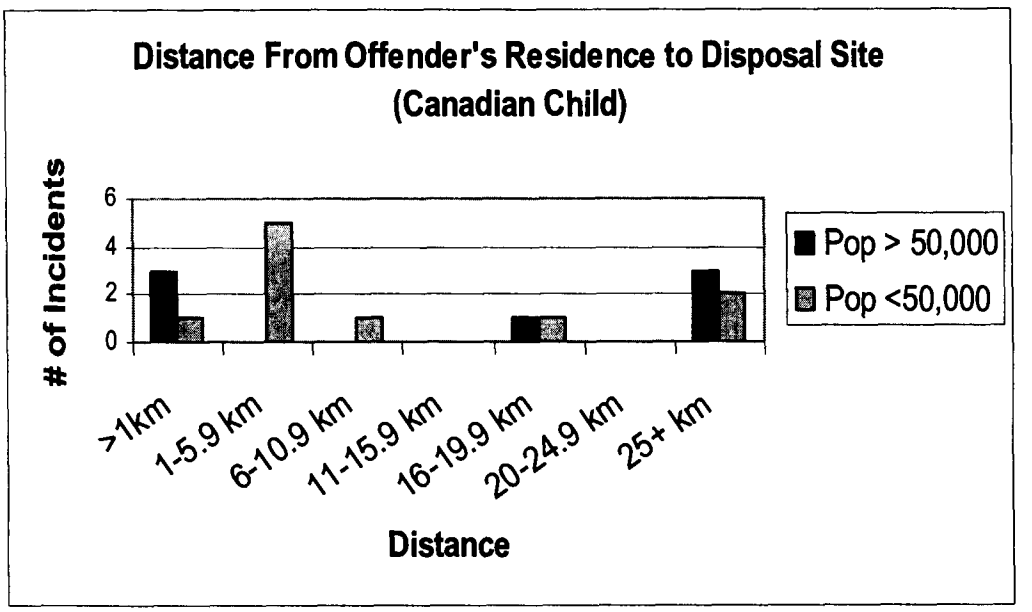


Figure 26: Distance from Point of Initial Contact to Murder Scene (Canadian Child)

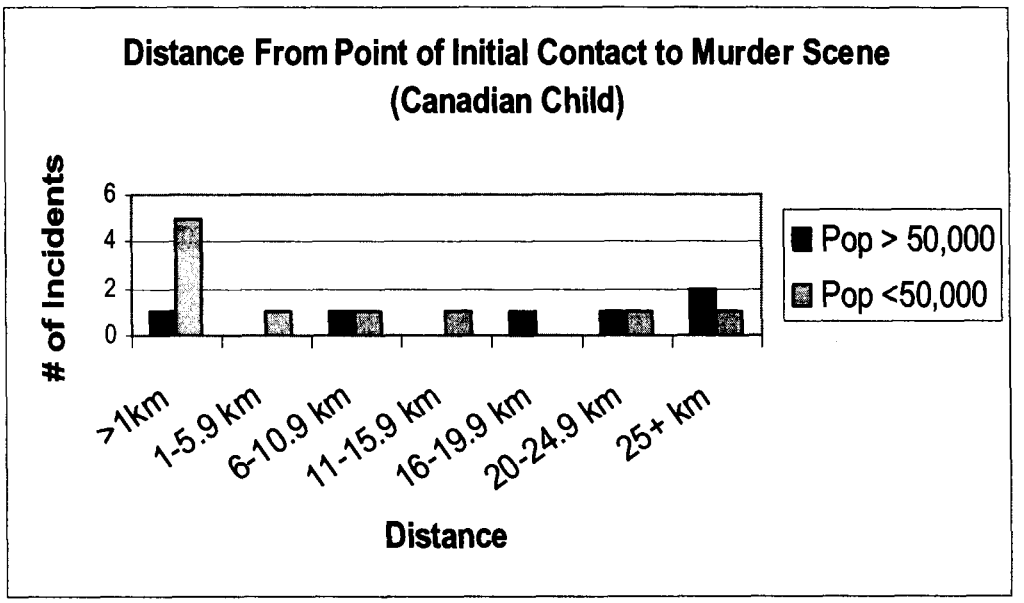


Figure 27: Distance from Point of Initial Contact to Disposal Site (Canadian Child)

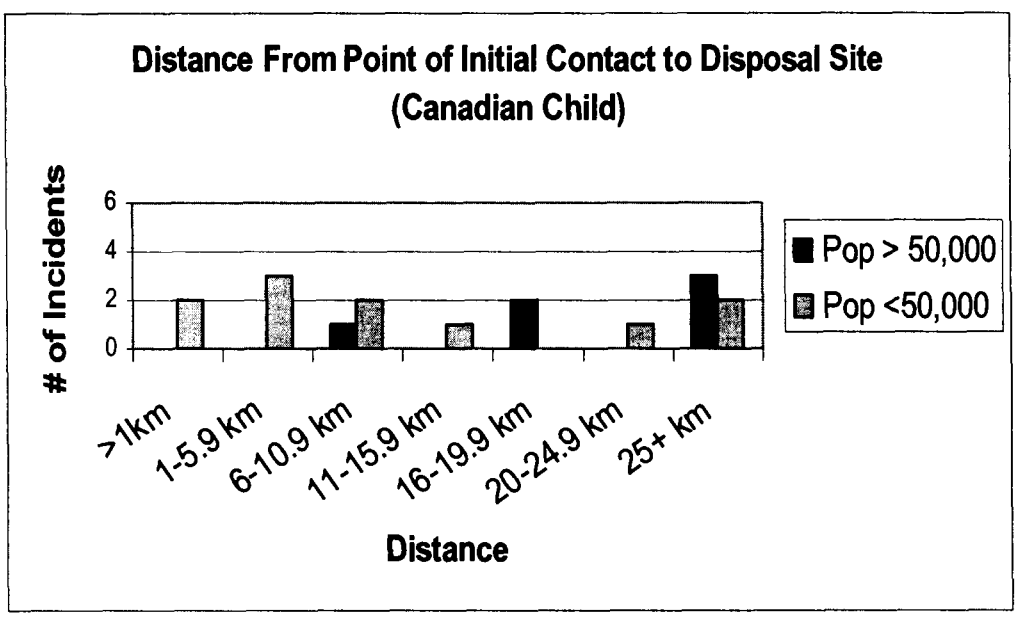
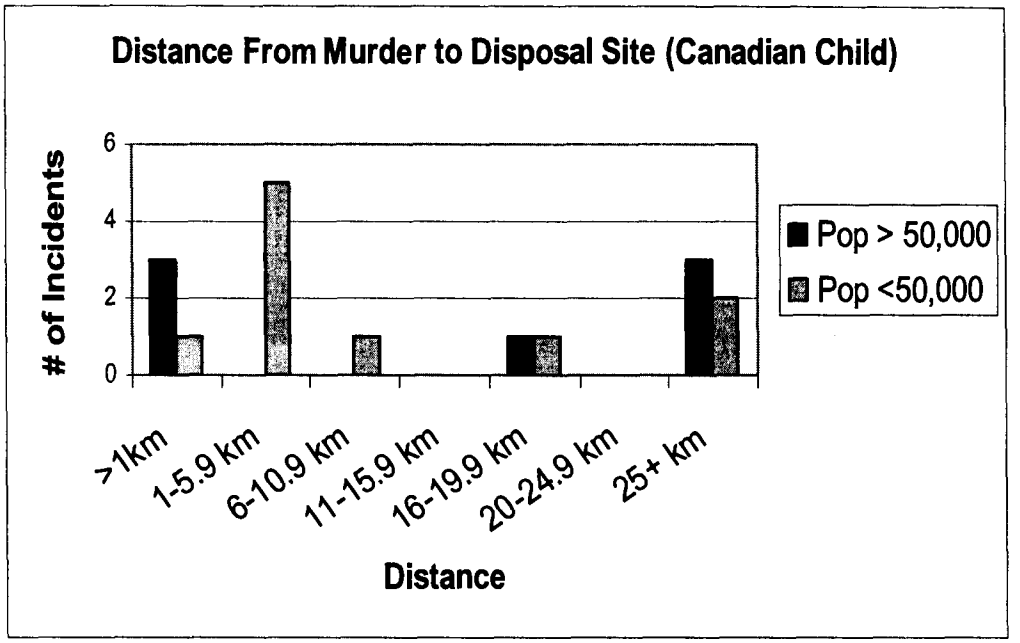


Figure 28: Distance from Murder to Disposal Site (Canadian Child)



Canadian Young Adult

Before discussing the results, it should be noted that one of the victims (serial offender) lived in another country so was not included in the measurements of residences, and victim's residence to murder and disposal site. As well, in the larger population due to the fact that the victim's body was not found for almost a year, it was also unknown whether the victim was murdered and disposed of in the same location. As such, these distances are unknown for all of the distances involving murder location.

Similar to the results found in the child category, the young adult victims did not live far away from the area of initial contact. In 92 percent of the cases the victim lived within 5 km of the point of initial contact. The average distance was 1.6 km for smaller populations and 1.8 km for serial offenders. The distance from the victim's residence to offender's residence was substantially different between the smaller populations and serial offenders. The distance travelled for serial offenders was an average of 10 km and

for smaller populations was 2 km. It was found in 40 percent of the cases that the victim lived within 1 km of the offender in smaller cities. This is the exact opposite of what was found in the child category. In this category, the offenders operating in larger cities travelled farther to obtain victims than in smaller cities. In fact, this is true for almost all of the categories. The victims of serial offenders lived an average of 51 km from the murder scene, 60 km from the disposal site, and in the smaller cities the average distance was 13 km from the victim's residence to both the murder scene and disposal site. In 75 percent of the cases the serial offender travelled over 25 km to dispose of the victim. In fact, one of the serial offenders travelled well over 80 km from the victim's residence to murder and dispose of his victims. These findings are found in Figures 29-32.

A similar pattern was found in the distance between the offender's residences to the crime sites. For both the murder and disposal sites of the serial offenders, the distances averaged 64 km and 53 km. Only one of the serial offender's crimes was assessed in the above calculation because the other offender killed his victim's at his residence. In 58 percent of cases the serial offenders travelled over 25 km to murder the victim and in 66 percent of cases the serial offender travelled over 25 km to dispose of the body. In the smaller populations the average was 13 km for both distances. This also indicates that the body was moved less then one kilometre, if at all, in the smaller populations. See Figures 33 through 38 for details.

Figure 29: Distance from Victim's to Offender's Residence (Canadian Young Adult)

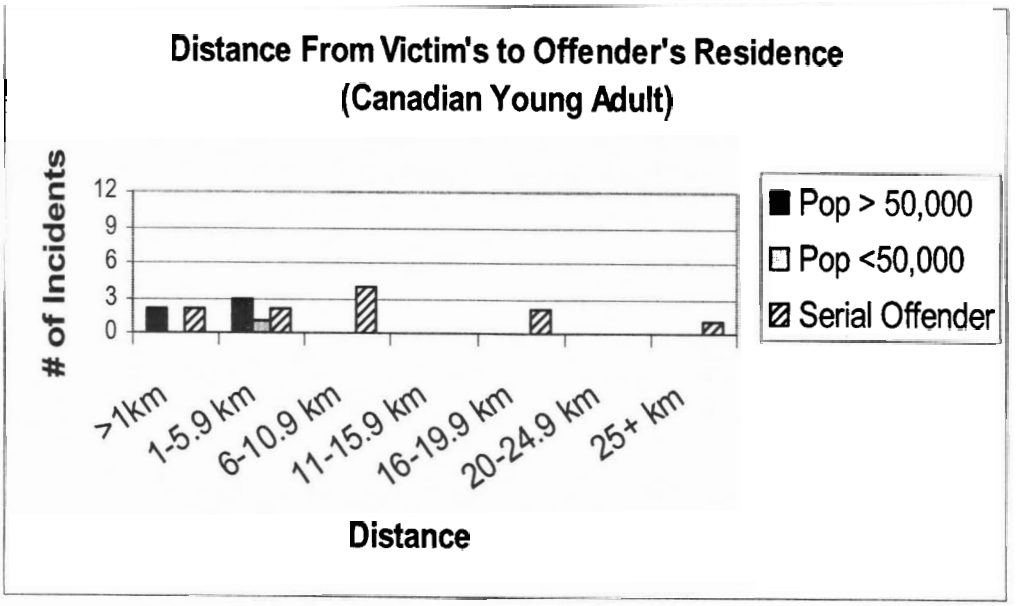


Figure 30: Distance from Victim's Residence to Point of Initial Contact (Canadian Young Adult)

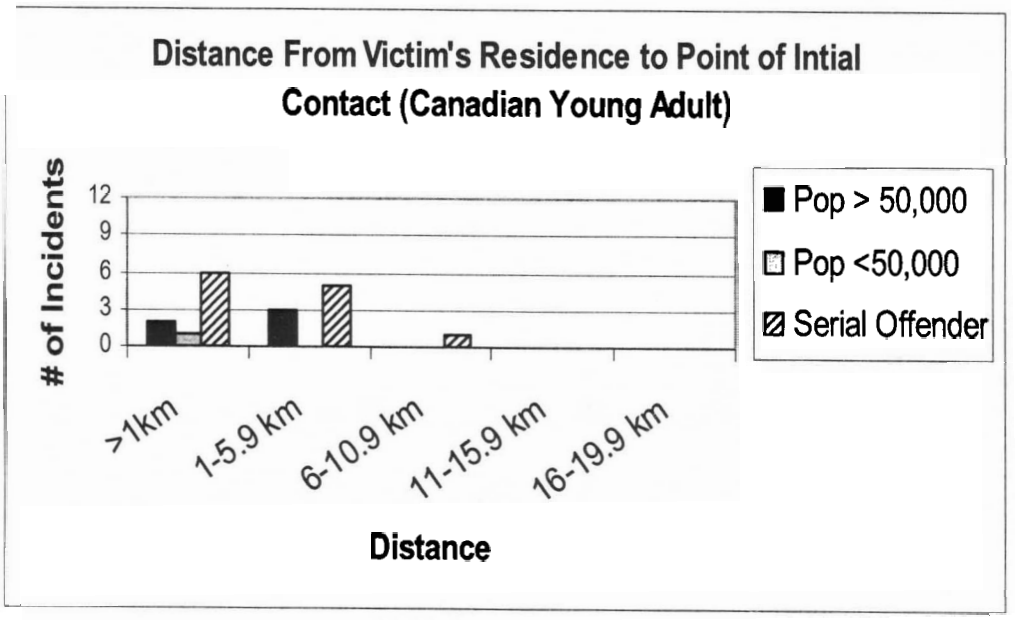


Figure 31: Distance from Victim's Residence to Murder Scene (Young Adult)

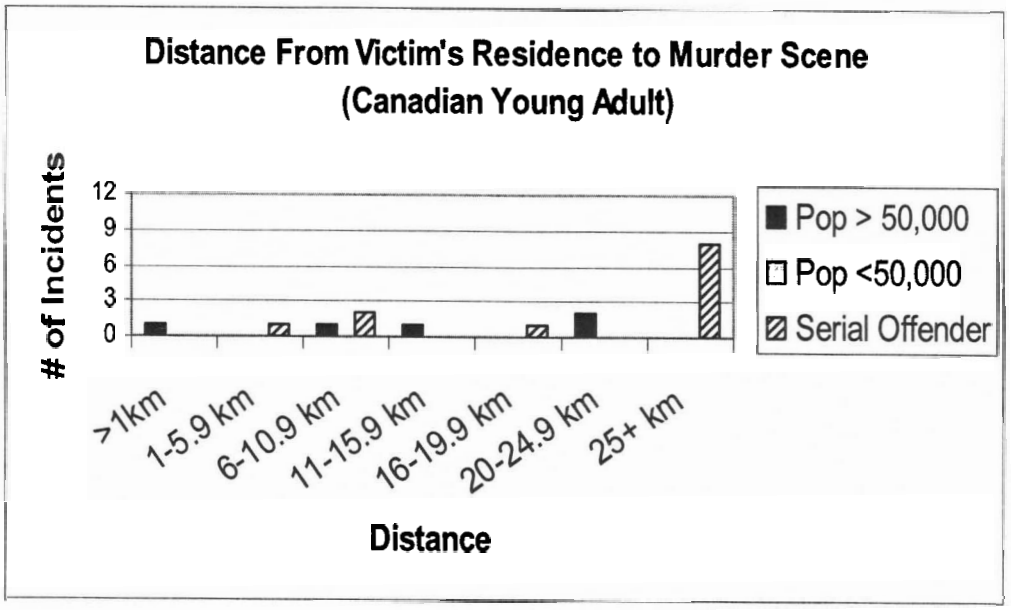


Figure 32: Distance from Victim's Residence to Disposal Site (Canadian Young Adult)

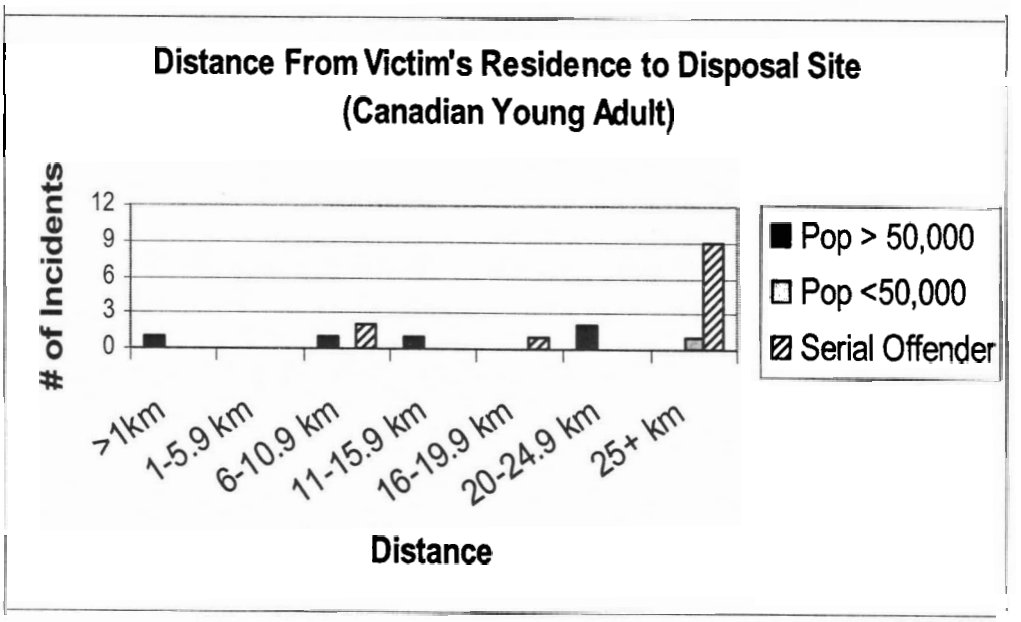


Figure 33: Distance from Offender's Residence to Point of Initial Contact (Canadian Young Adult)

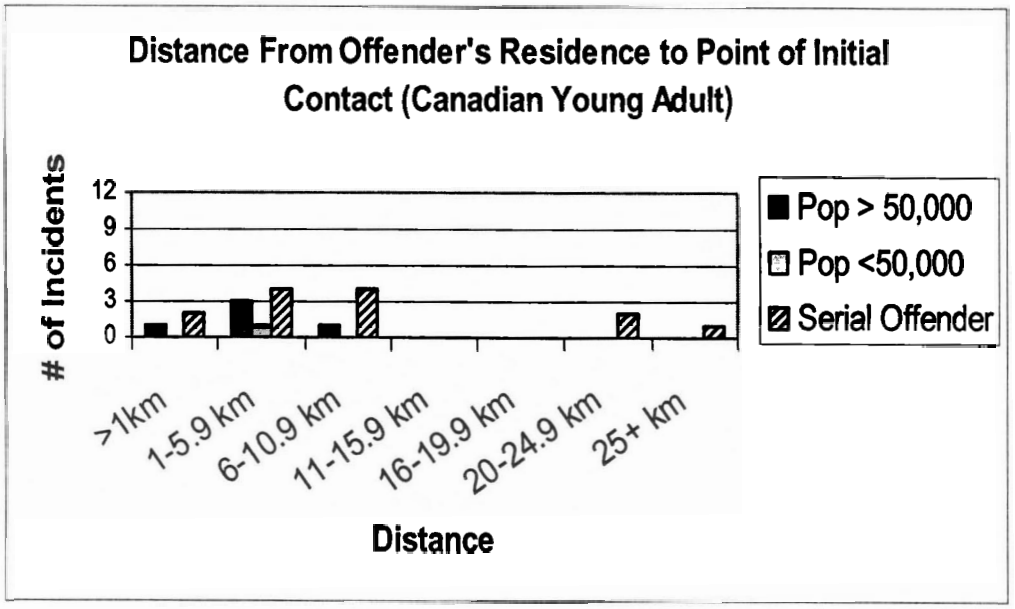


Figure 34: Distance from Offender's Residence to Murder Scene (Canadian Young Adult)

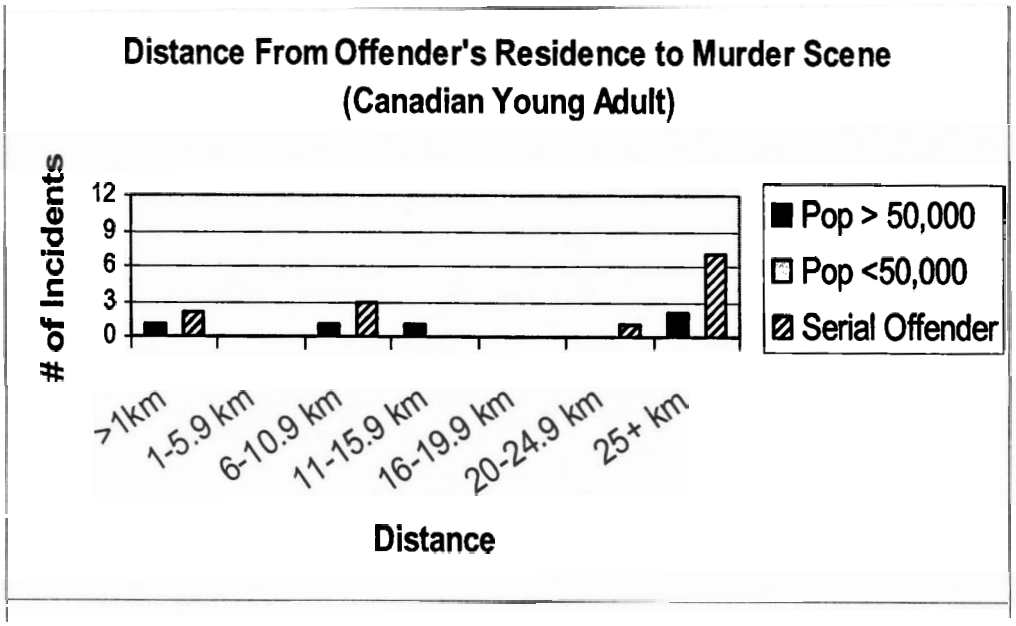


Figure 35: Distance from Offender's Residence to Disposal Site (Canadian Young Adult)

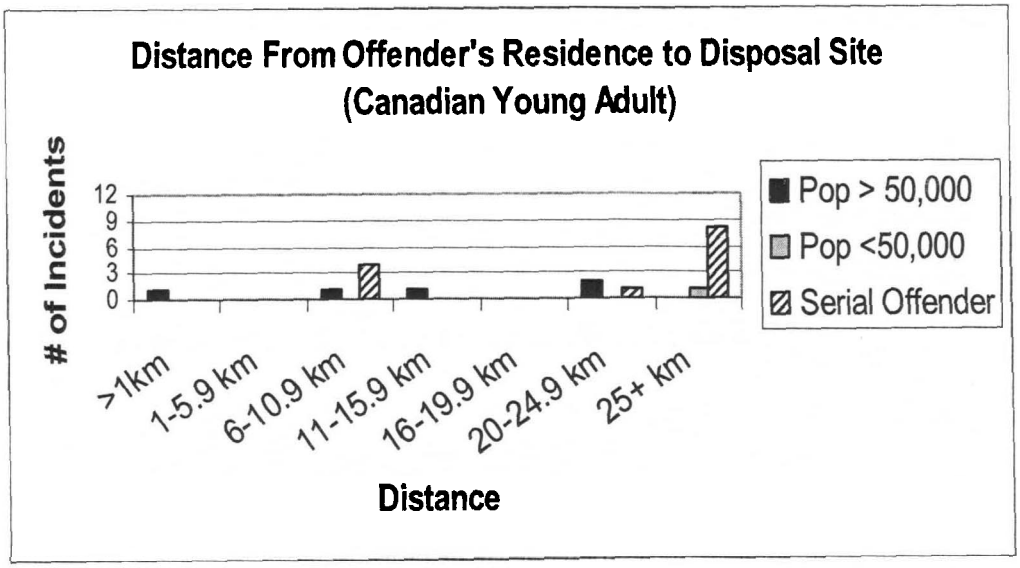


Figure 36: Distance from Point of Initial Contact to Murder Scene (Canadian Young Adult)

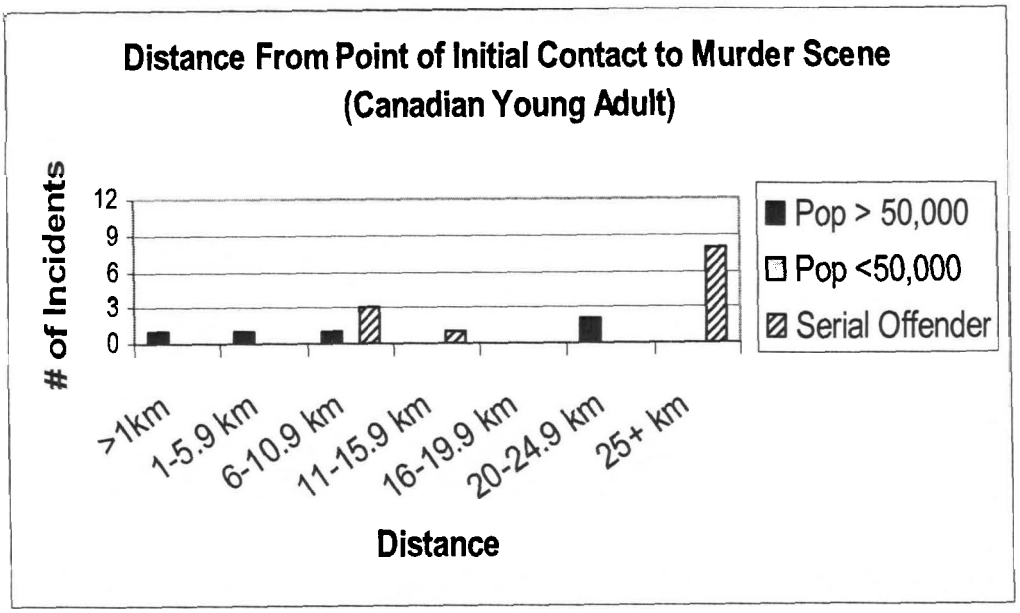


Figure 37: Distance from Point of Initial Contact to Disposal Site (Canadian Young Adult)

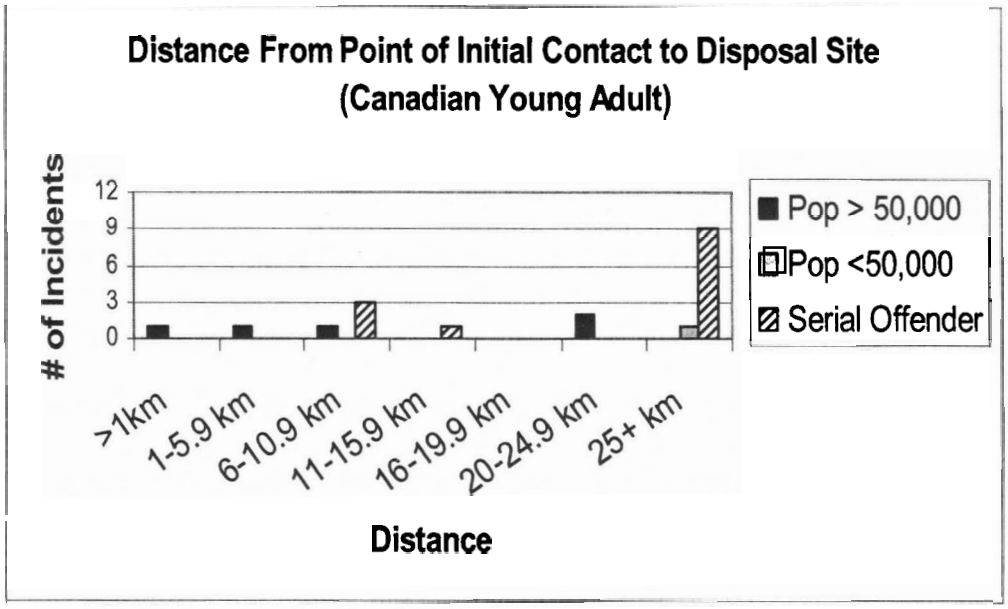
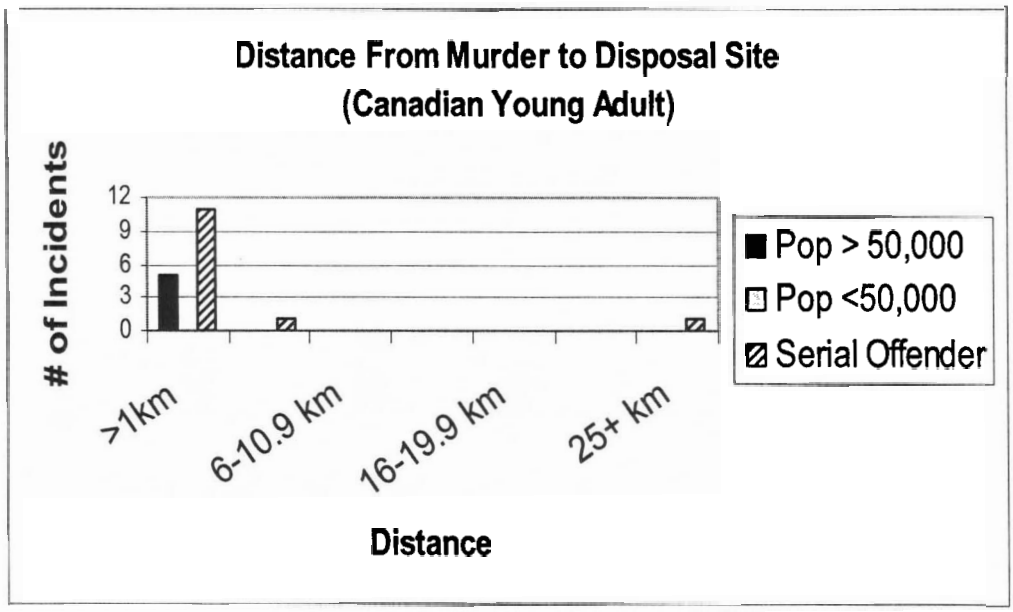


Figure 38: Distance from Murder to Disposal Site (Canadian Young Adult)



Canadian Adult

The older the victim, the farther they live away from the offender and from the point of initial contact. Only half of the victims lived within 5 km of the point of initial contact. One of the offenders was not included in the calculation of average distances in

victim's to offender's residence, and all the measurements of offender's residence to the crime sites because he was living between two cities that were over 600 km apart at the time of the offence. It was felt to include these distances in the above mentioned analysis would skew the results. The average distance was 5 km from the point of initial contact and 4 km from the offender's residence. In 75 percent of the cases the victim lived between 6 and 10 km of the murder scene. In regards to the other sites, the victim lived a mean of 7 km from the murder scene and 31 km from the disposal site. The offender, on average, lived 2 km from the contact scene, 3 km from the murder scene and 19 km from the disposal site. The mean distance from the contact scene to disposal scene was 70 km. All of the results for the adult category are in Figures 39 to 48.

Figure 39: Distance from Victim's to Offender's Residence (Canadian Adult)

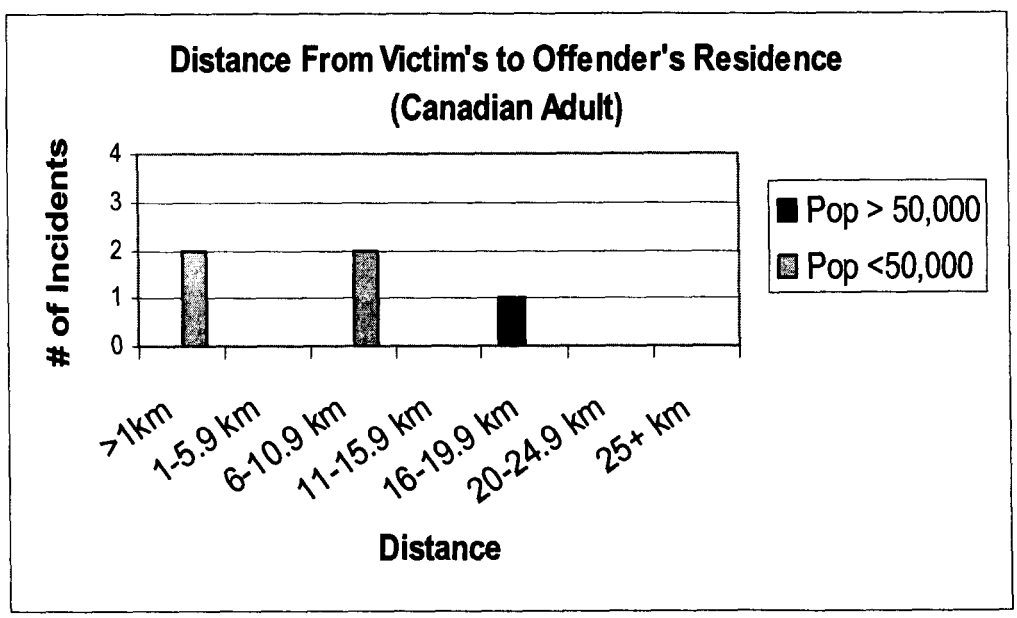


Figure 40: Distance from Victim's Residence to Point of Initial Contact (Canadian Adult)

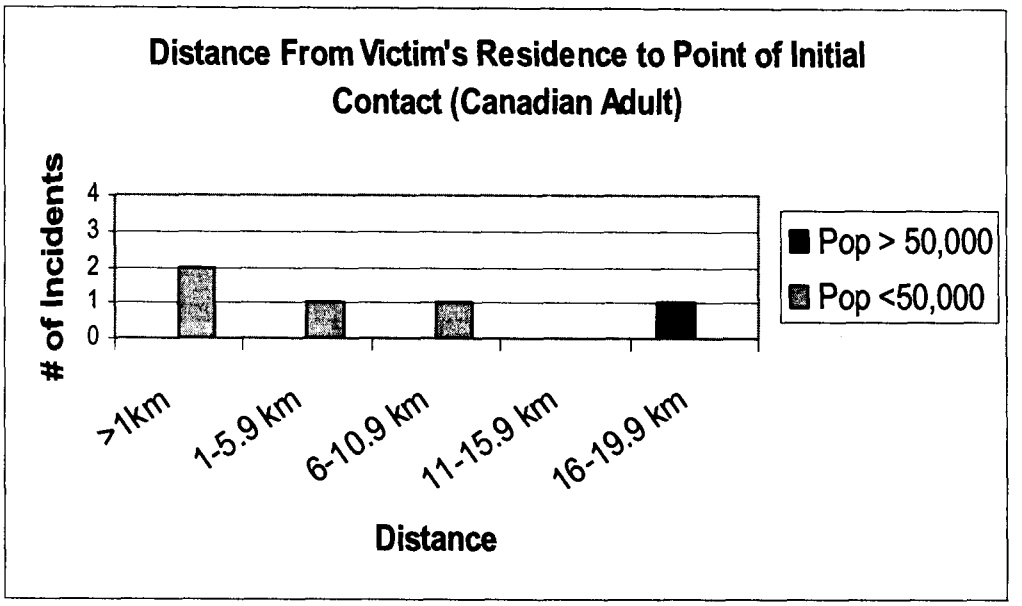


Figure 41: Distance from Victim's Residence to Murder Scene (Canadian Adult)

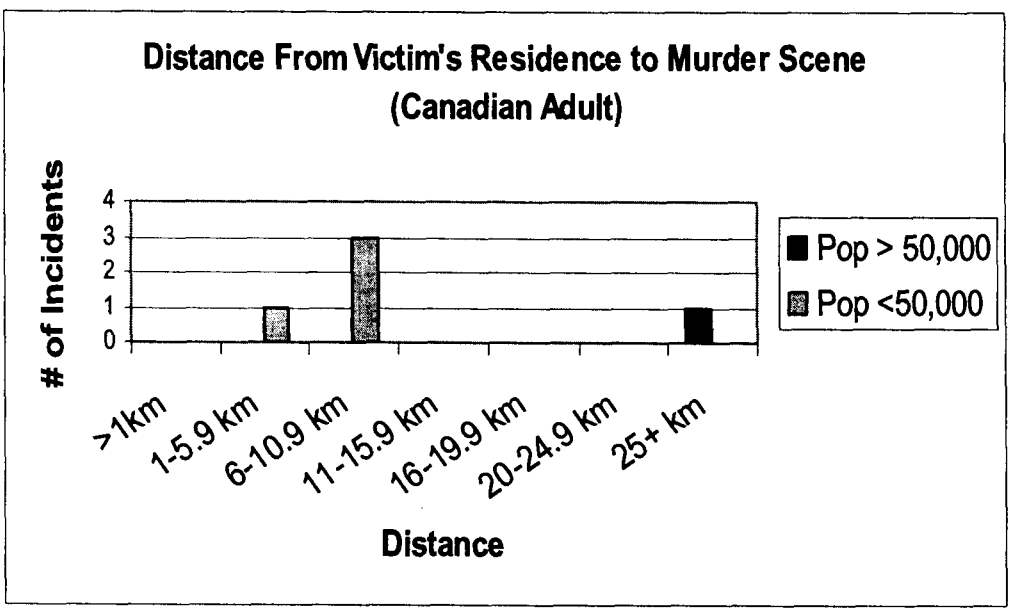


Figure 42: Distance from Victim's Residence to Disposal Site (Canadian Adult)

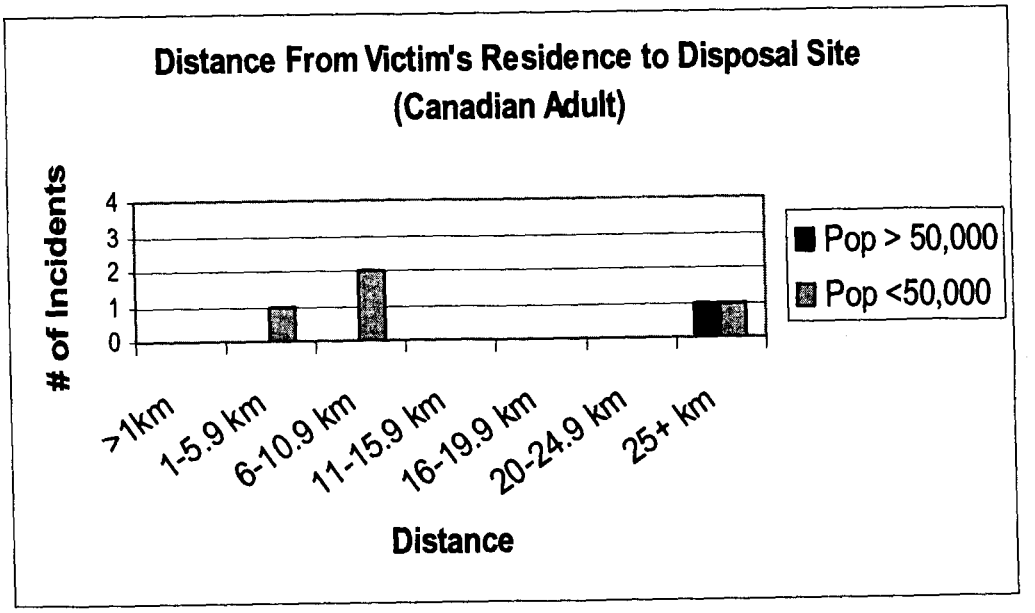


Figure 43: Distance from Offender's Residence to Point of Initial Contact (Canadian Adult)

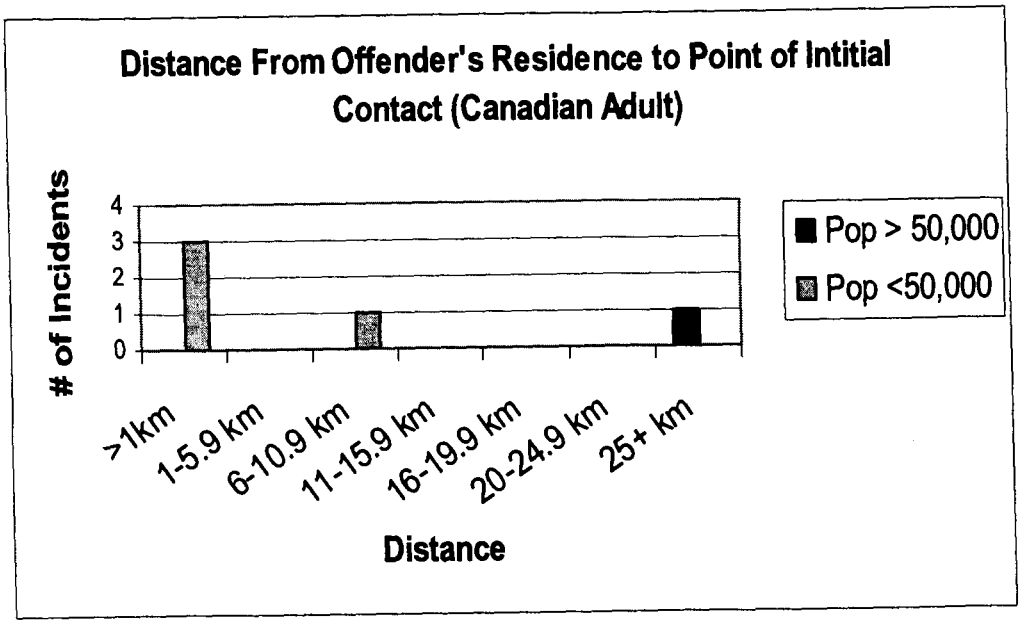


Figure 44: Distance from Offender's Residence to Murder Scene (Canadian Adult)

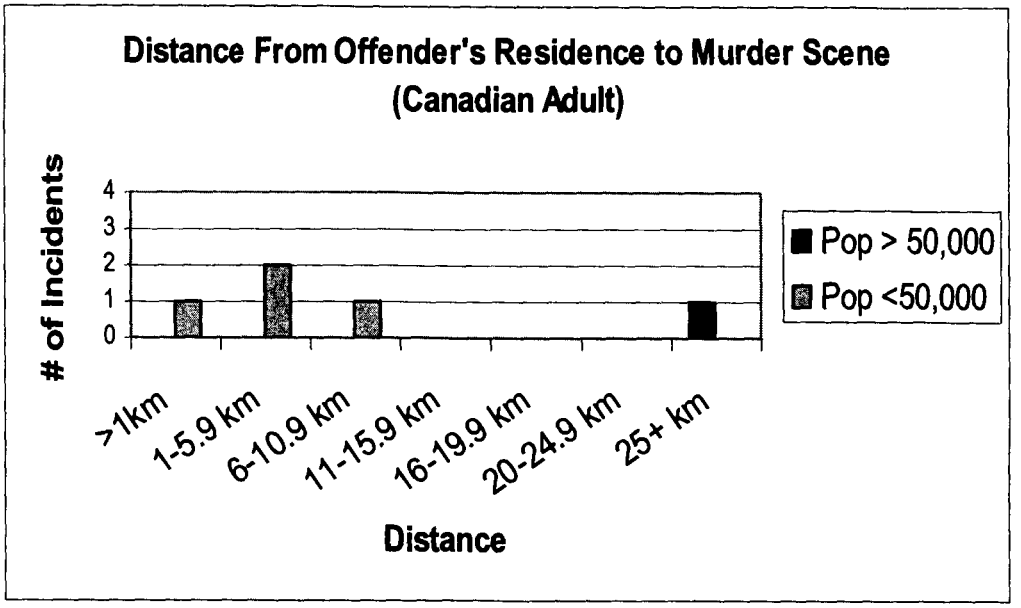


Figure 45: Distance from Offender's Residence to Disposal Site (Canadian Adult)

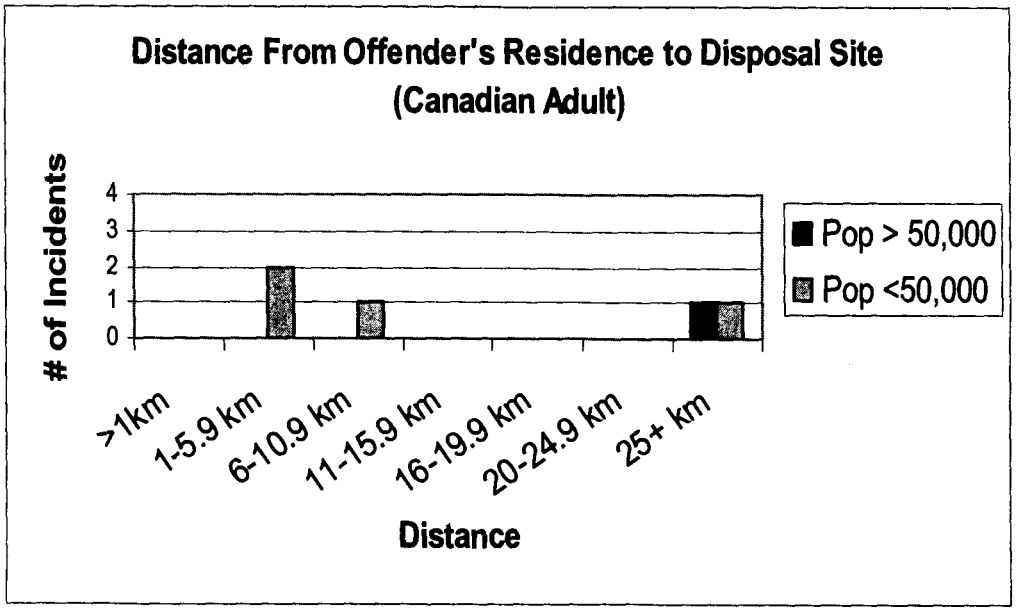


Figure 46: Distance from Point of Initial Contact to Murder Scene (Canadian Adult)

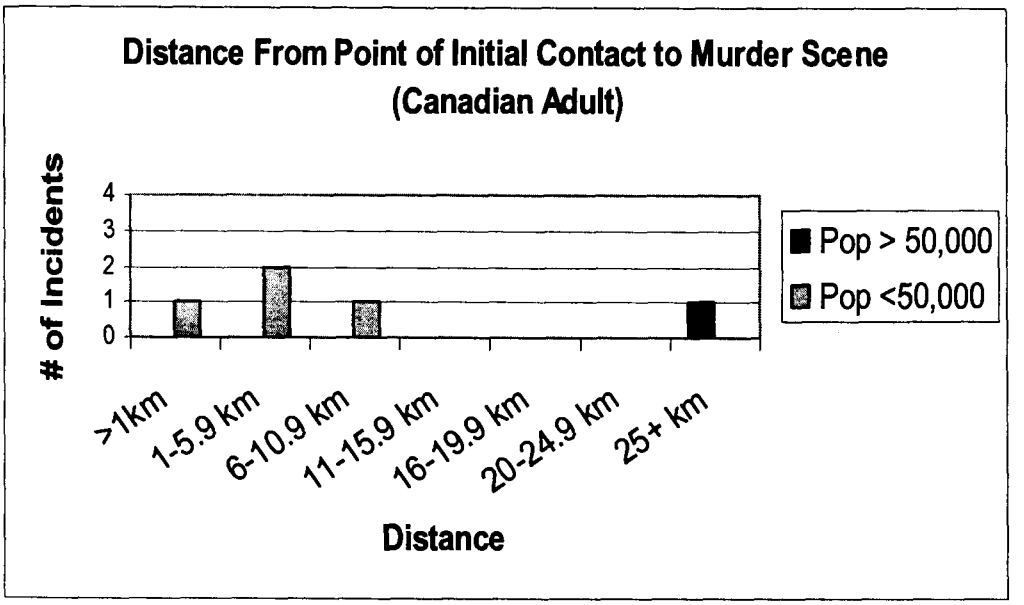


Figure 47: Distance from Point of Initial Contact to Disposal Site (Canadian Adult)

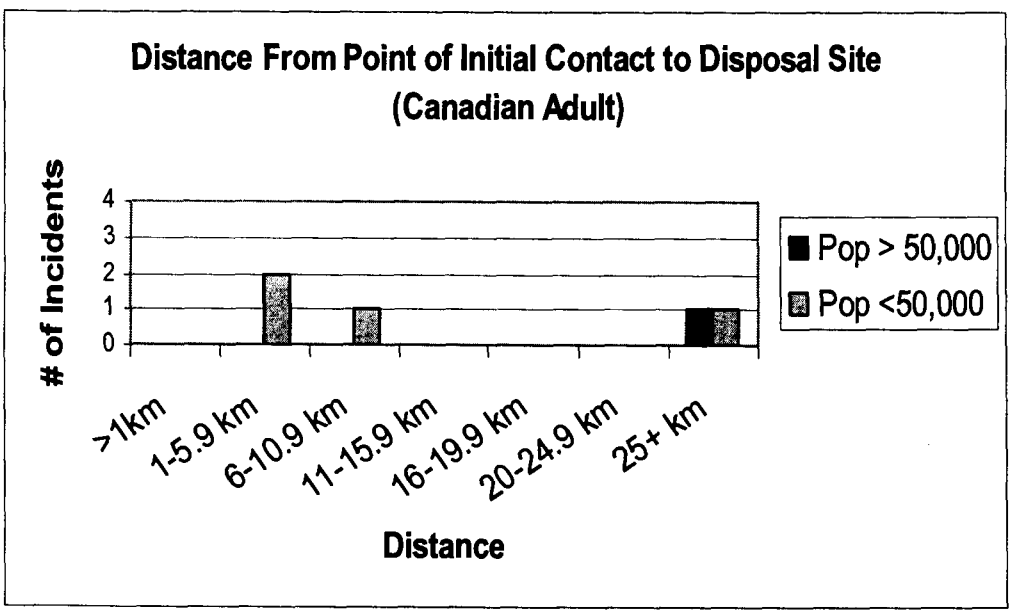
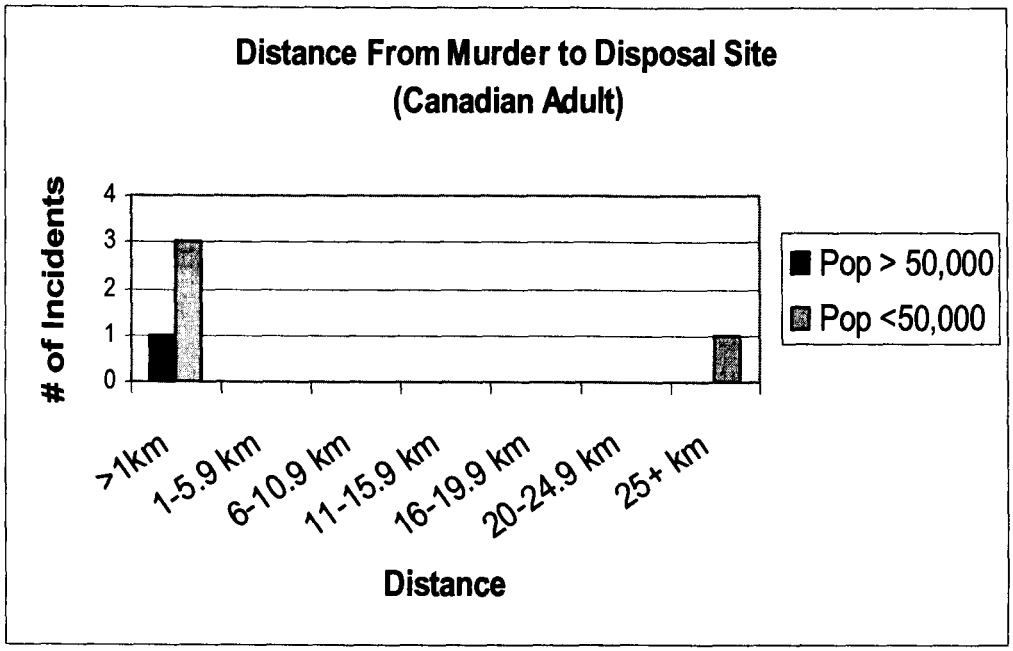


Figure 48: Distance from Murder to Disposal Site (Canadian Adult)



Washington State

In regards to the distance between the victim's and offender's residence (Figure 49) the distances averaged 6 km for both the child and adult victims. In all of the cases in the adult category, the victim lived between 6 and 10 km away from the offender's residence. However these are the only distances that were similar. The distances in the adult cases were substantially larger then the child victims. The distance from the victim's residence to the disposal site (Figure 51) was 7 km in the child category and 39 km in the adult category. For the offender's residence to disposal site (Figure 53) the average was 4 km for children and 40 km for adults. This indicates that adult victims are taken farther to dispose of than child victims. This is only based on eight cases, so the reliability of these results is questionable. As with the Canadian victims, if the body was moved, it was not very far from the murder scene. In 60 percent of the cases the body

was moved less then 1km. The remaining distances not discussed here are graphed in Figures 49 to 54.

Figure 49: Distance from Victim's to Offender's Residence (Washington State)

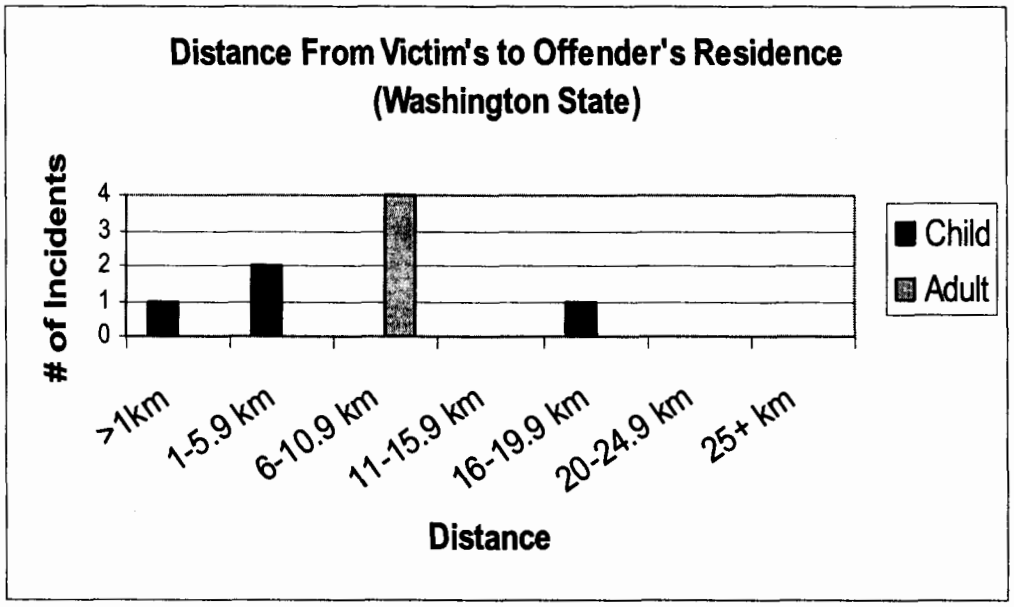


Figure 50: Distance from Victim's Residence to Place of Initial Contact (Washington State)

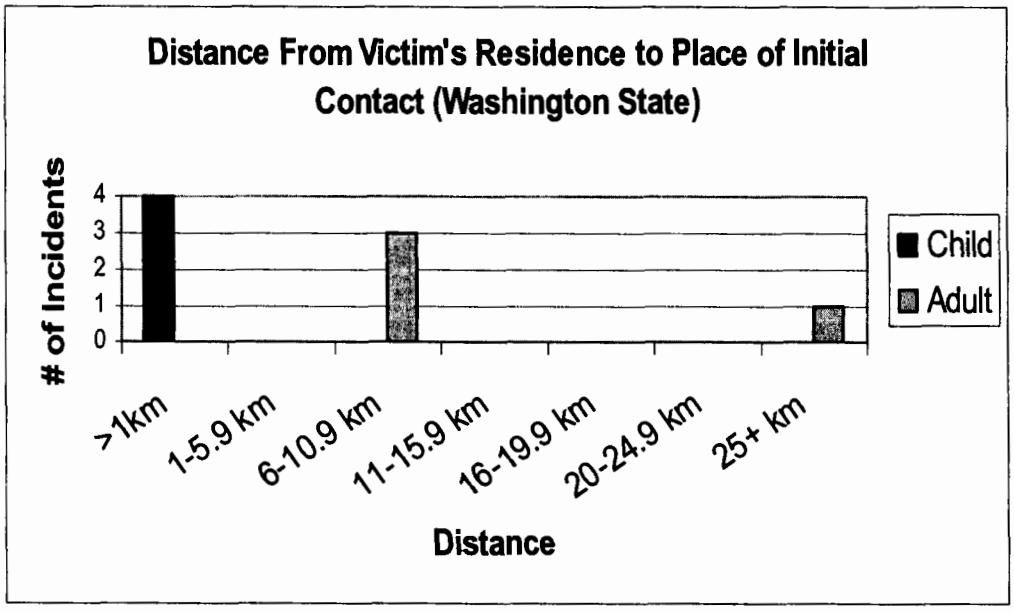


Figure 51: Distance from Victim's Residence to Disposal Site (Washington State)

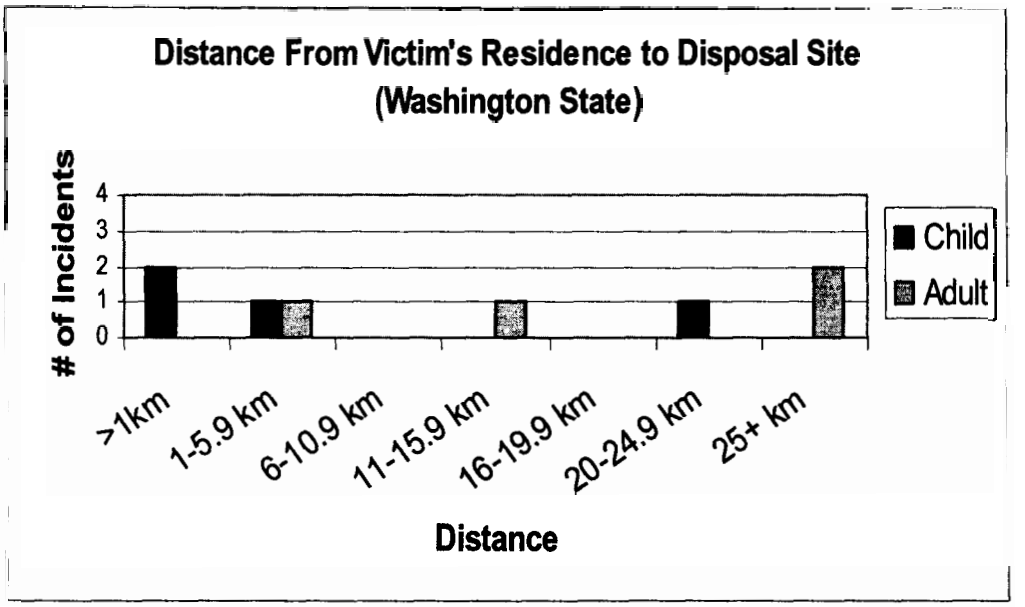


Figure 52: Distance from Offender's Residence to Point of Initial Contact (Washington State)

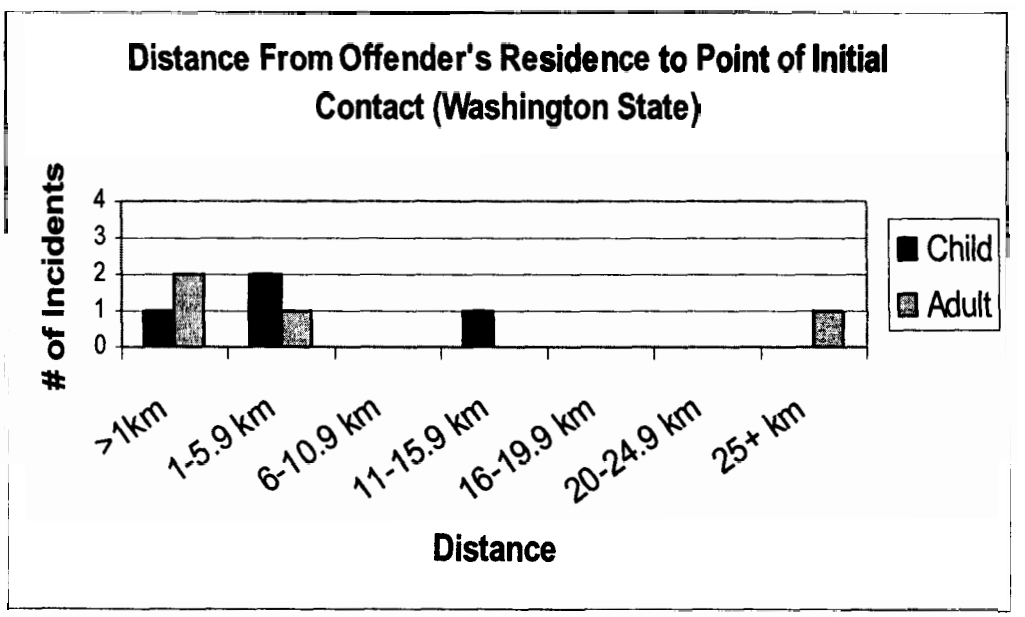


Figure 53: Distance from Offender's Residence to Disposal Site (Washington State)

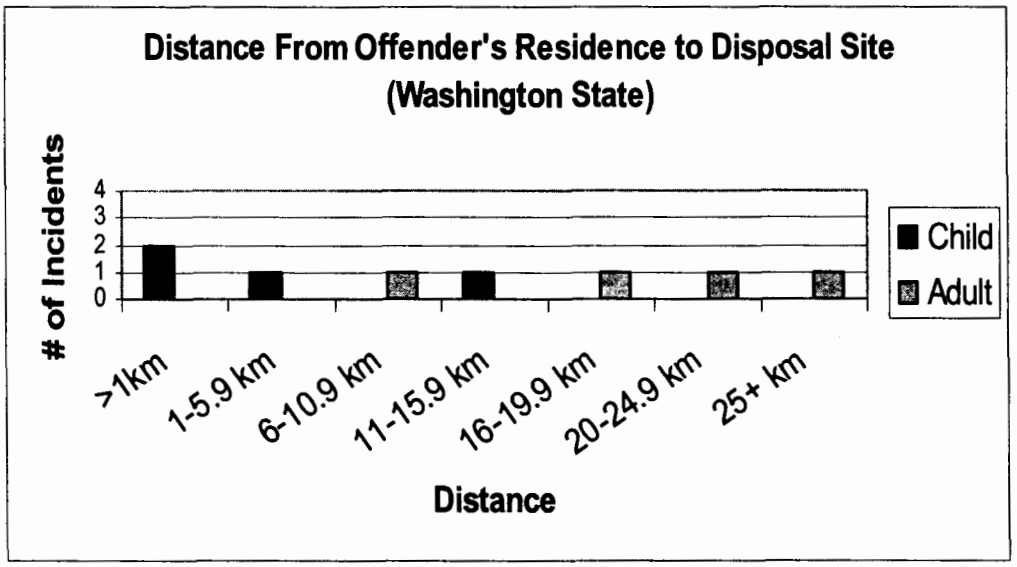
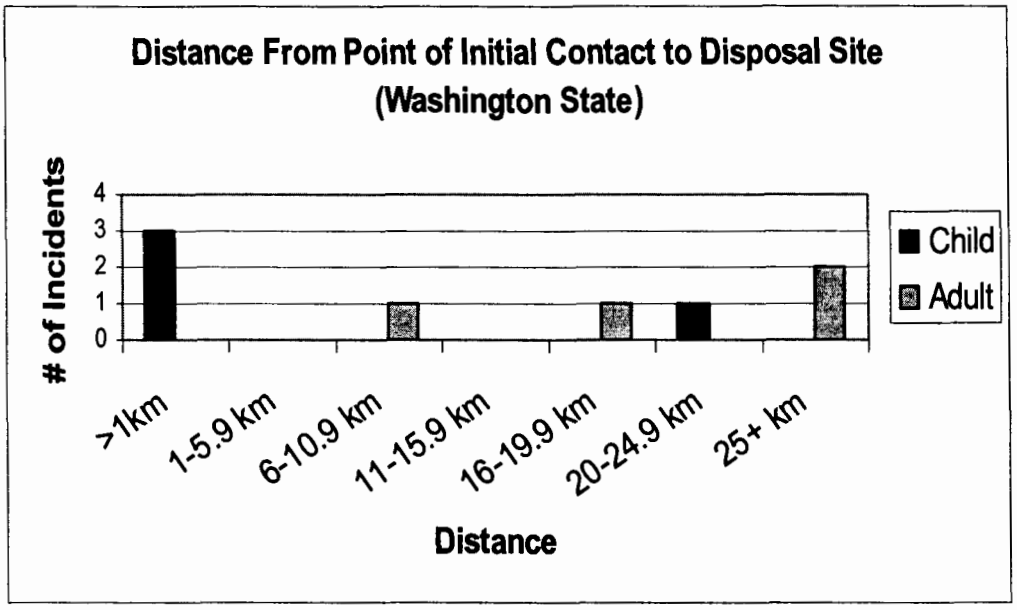


Figure 54: Distance from Point of Initial Contact to Disposal Site (Washington State)



There are many significant findings in this study all which will be discussed in the next chapter. One finding that was not analyzed in this chapter was whether the victim was sexually assaulted during the commission of the crime which is instead addressed in Chapter Five.

CHAPTER FIVE: DISCUSSION

The purpose of this thesis was to examine the distances and offender's decisions involved in non-familial abductions that end in homicide. From the data analysis, there were many distinctive findings that evolved. This includes patterns that arose in victim and offender demographics, temporal and spatial factors, how offenders were familiar with the disposal site, the type of areas victims are taken from and relocated to, and the distances involved in selecting different crime sites. The knowledge that offenders travel shorter distances to dispose of the body in larger cities can be implemented in investigative strategies in abduction cases. Throughout the discussion there will be suggestions as to how the results, such as time and places from which victims are taken, can be incorporated into the education of the public, parents, police and children. There will not be a discussion of the results in the Adult and Washington State cases, as it was felt that due to the small sample size there were not many clear patterns that emerged. There will also be an examination of how the results of this study confirm that awareness space is utilized by offenders who commit homicides. Finally, there will be a discussion of the strengths and weaknesses of this study.

Before reviewing the implications of the results, one must remember that non-familial abductions that end in homicide do not occur often. This study illustrates this, because there were only 93 cases (49 solved and 45 unsolved) that occurred in Canada in a 30 year period. The risk of being abducted is minimal as there is a population of over 31 million people in Canada. However, the findings in this study bring to light some

important information that people need to remember. The areas from which children are being abducted, such as the home, are places in which children should be safe. As there are many variables in this study that have not previously been examined, the information contained in this research provides important insight into this phenomenon.

Throughout this chapter, there will be a number of comparisons between studies on sexual assaults and homicides. Sexual assaults and homicides are not the same crime, but it is felt that the results are comparable for a number of reasons. First, in a 2002 study conducted by the author, a number of the offenders committed sexual assaults, including both serial offenders in the present study, before committing a homicide. Previous research has shown that the incidence rate for sexual homicides is relatively low (Roberts & Grossman, 1993: 5). In 88 percent of the cases in this study, the victim was sexually assaulted before being killed. Thus, it appears that the motivation for most of these cases was sexual. A previous study on child homicide found that sexually motivated homicides were the most common type of homicide (Cloud, 1996: 61). In a number of these cases the offender mentioned that he only set out to sexually assault the victim, not kill them. It has been found that stranger homicides occur because the offender is trying to commit another crime, one of which is a sexual assault. As a result, it is deemed that it is appropriate to compare sexual assault and homicide statistics.

Demographics

The Victim

The results found in victims demographics were not surprising, but do warrant some examination. As mentioned above, most of the victims in this study are female.

The fact that females comprise the majority of victims in child murders is an expected result as all of the offenders in this research are male. It is found that most perpetrators of sexual assaults are male, and most assaults are committed against children of the opposite sex (Holmes & Holmes 1996: 135). Thus it is not unexpected that this stands true for homicides. This thesis also discovered that the majority of victims were between the age of 8 and 16. Similar results were found in a study by Boudreaux et al., who examined the risk factors in child abductions and sexual assaults in children ages 0-17. The researchers found that children in the elementary and middle age groups had the highest risk of being abducted for the purposes of sexual assault (Boudreaux et al., 1999: 543). The rational for these ages having the highest risk is due to the fact that have reached an age where they have less supervision and are still limited in their ability to remove themselves from dangerous situations. A study by Finkelhor (1995: 181) argued that as a child gets older they gain more control over their mobility, and acquire an increased capability to remove themselves from dangerous situations. Walking to and from locations on public streets was found to be the activity that most victims were involved in before being abducted. After people reach age 16, the primary mode of transportation is likely to change because they now are able to drive themselves. This is not the only factor that leads to a decrease in risk, but is one of the contributors. The primary reason why younger victims have a higher risk of being abducted and murdered is because they are easier to control and move to new locations. The offender has a higher likelihood of obtaining his goal or fantasy, which is one of the most important factors when deciding to commit this type of criminal offence.

This shows that it is crucial that children and young adults understand how to protect themselves. The most important understanding for children to have is not to talk to strangers, and under no circumstances should they ever go anywhere without letting someone know what they are doing and when they will be expected to return. In addition, it should be understood that it is safer to travel in numbers. When walking to school or a friend's house, parents would be benefited to encourage their child to walk with a friend or at the very least, know where their child is going and when they are expected to be back. This does not mean that the child has no risk of being abducted as the author's 2002 study found that children who travelled with a companion were sexually assaulted despite the fact that they were not alone (Nethery, 2002: 57). However, the risk of being attacked when travelling in the company of another is less than if one is travelling by him or herself. Although parents cannot monitor their children all of the time, they can be made aware of the dangers and things they can do to better protect their children.

The Offender

One of the first facts that criminology students learn is that most crimes are committed by males between the ages of 18 and 24. In this study the mean age of the Canadian offenders was 29 and over half of the offenders were over the age of 33. This shows that homicides are typically not committed by individuals in what is considered the "primary years" of a person's criminal career. Although this was not researched in this study, it is believed the murder committed in this study is not the offender's first criminal act. This is supported by a previous study by the author in 2002. This study focused on child sexual assault, and found that the offenders had committed a number of

other crimes, such as theft, before the sexual assault (Nethery, 2002: 60). The fact that offenders are not committing the offences until later in life shows a continued orientation towards criminal activities and at the same time an escalation of violence.

The majority of offenders will not commit a homicide during the course of their criminal career. However, there are a minority of offenders that increase their level of violence with each act that they commit. Again, this was not something that was examined specifically in this study, but it is proposed that this is what occurred with most of the offenders including in this research. Support for this theory can be found in the author's 2002 research on non-familial child sexual assault. One of the offenders committed a number of different types of offences such as theft and assault before raising the level of violence. He gradually worked his way to committing sexual assaults and with each passing assault the level of violence increased. Finally, he was declared a dangerous offender after he killed one of his victims. He is just one example of a number of offenders who exhibited these characteristics. The most well known example, in Canada, of an offender who raised his level of violence is Clifford Olsen. He started out by committing burglaries, then sexual assaults, and in the end he brutally killed at least 11 young adults, most of who were between the ages of 13 and 14.

There is no way of knowing who will be involved in violent crimes, and who will escalate their level of violence to a point where they commit murder. On the other hand, there are steps that can be taken to be aware of a person's potential to commit murder. Keeping an eye on the types of crimes a person is committing and whether the level of aggression is increasing is crucial. A study by Warren et al., examined a group of 108 serial rapists to see what factors have predictive value in showing which rapists will have

the highest potential of escalating their level of violence (Warren et al., 1999: 37). Similar factors could be looked at in murders to see it there were any predictive events and apply this to other offenders who seem to be escalating their level of violence. It is believed that because the offenders in this study were older, that in the years leading up to the offence the majority showed a potential to engage in aggressive behaviour. The offender mentioned above is an example of someone who increased his level of violence, as he attempted to kill two of his victims before successfully killing someone. It is acknowledged that there are limited resources and the caseloads of parole and probation officers are already overwhelming. However, for the protection of society there needs to be an emphasis paid to violent offenders, the activities they engage in, how they behave and the type of offences they commit. The weight of identifying these individuals does not have to rest solely on parole and probation officers. There needs to be new programs and resources available for violent offenders both in and out of prison, in the hopes of changing their patterns of behaviour.

Temporal Factors

Time and Day of the Week

The availability of a good target is one of the key factors in an offender having the opportunity to commit a crime. It was assumed that most of the abductions and homicides would have taken place during the weekend and during hours when children have less supervision. Previous research on sexual assaults found that most took place on weekends and between the hours of 12pm to 4pm (Allard et al., 1999: 200). The pattern that emerged in time of day and day of the week in this study, in regards to children and young adults, was that most of the homicides occurred on weekdays between the hours of

8am and 8pm. Abductions taking place between 3pm and 8pm was not surprising given the fact that victims are more readily available during these hours because they are not in school and are most likely allowed to be outside of the house until around 8pm, which leaves them more vulnerable to being abducted. The fact that a great number of the abductions took place during school hours and school days was not an expected finding. A total of 38 out of the 50 cases included in this study took place on weekdays and 15 of the 50 cases took place during school hours. Referring to the author's previous study it was found that most of the sexual assaults occurred during school hours, Monday to Friday (Nethery, 2002: 44-46). For both studies, the majority of these cases did not occur during the summer months, which are July and August. The times when these abductions and assaults occurred are times when children are supposed to be under adult supervision.

During the hours of 8am to 3pm, Monday to Friday, children and young adults are supposed to be in school. In one of the cases included in this study, one of the victims was taken from right outside the school's front entrance. Three other victims in this study were taken only a short distance away from the school. Two of the victims in the 2002 study were sexually assaulted in a school bathroom. It seems that there needs to be additional protection for children on the way to and from school, and while attending school.

Before implementing any of the below recommendations, British Columbia needs to change their policies on children's attendance in school. Currently, B.C. is the only province in Canada that requires children to be registered in school, but not actually attend school (Provincial Government of British Columbia's School Act Website, 2004). Parents can be penalized for failing to register their children in school, but not for

ensuring that their children attend school. The current policy makes it difficult to decipher which children are registered in school but decided not to attend school and which children are registered and attending, but missing from school on the day in question. This suggests that there is a need for a change in the policy in B.C. that requires children to be both registered and attending school.

It is acknowledged that teachers only have so much time to focus on where each child is at every moment, and the government does not have the resources to allocate individuals to be in charge of school security, however there are other steps that can be taken to protect people. One procedure that could be implemented is mandatory attendance at the beginning of the day, after recess, after lunch, and at the end of the day. This would ensure that all students are accounted for on at least certain times throughout the day. In addition, if a student has not attended school that day, there should be a phone call placed to his or her home within 15 minutes of the school discovering the child is missing, to find out why the student is not in school. There could also be a program set up for walking to and from school. There could be a set meeting point for students to meet in the morning to travel to school and another to walk home. Finally, there should be a pass that is issued to all school visitors, that way if a stranger walks into the school it can quickly be identified that this person does not belong and they can be removed from the premises. Some of these practises are already in place, but to use all of them would increase the protection that students receive.

Finding the Victim

The unfortunate reality in an abduction case is that the chance of finding the victim alive is minimal. Most victims are killed within 3 hours of their abduction

(Rossmo: 2000: 32). In this study the results confirmed these findings. Most children were killed within 2 hours, young adults within 4 hours, and adults within 5 hours of the abduction. As the victim gets older the time police have to locate the victim gets longer. On the other hand, the older the victim gets, the longer it is likely to take to report her as missing. A 10 year old still has limited freedom as to where and how far they can go from home without an adult as compared to a 15 year old. In that regards, the time may increase, but in actuality it probably makes little difference in the time investigators have to find the victim.

The time it took to locate the victim was quite long for most of the victims. For children it took an average of 14 days, young adults 52 days and adults 45 days. These times illustrate the point that offenders are moving victims to areas that are not frequented by a large number of people. In addition, they are placing the body, either buried, covered, or uncovered, in places that will not easily be seen by people walking by the location. This is an extremely long period of time for a family to wait to find out if their child or relative is alive. Even when the family knows that the person is probably dead, finding the body can give them that peace of mind so that they can begin the grieving process. This length of time demonstrates how important it was to conduct this study and find out if there are ways to finding the bodies at a faster pace. There were patterns found in this study in relation to the distances and places that victims are taken and these will be discussed in more detail below. Using the results found in this study will allow investigators to narrow down search fields and distances and hopefully will result in the quick recovery of the victim's body.

These results show how important it is to know where ones children are at all times. This entails knowing what ones children are planning on doing in their day, such as where they will be and when they will be home and their contact information. Even for older children and adults, it is easy to let someone know what ones plans are, so if they do go missing it will be quickly recognized that something is wrong and the appropriate steps can be taken. If someone is aware of the last known location, this can aid investigators immensely. Knowing the last location can help identify the possible areas that the victim was taken. For example, given the results in this study, if investigators know that the last known location was the victim's residence, they can begin by identifying and searching the closest secluded area. This may be a field, forest, park, or any area that is not frequented by people during the time of day that the victim was abducted.

Spatial Factors

Abduction Locations

One of the most important factors for people to be aware of are the places from which people are being abducted. For children, it was found that over half of the victims (57 percent) were inside or outside of their residence. Previous studies on child sexual assault showed that 15 percent of child sexual assaults took place in the home of the victim and 51 percent took place around the victim's residence (Boudreaux et al., 1999: 549). Another Canadian study found that 55 percent of sexual assaults took place in the victim or offender's residence (Allard et. al., 1999: 201). However, it should be mentioned that Allard's study did not distinguish between familial and non-familial attacks. The study by the author in 2002 discovered that a large number of children were

initially contacted while inside or close to their residence (Nethery, 2002: 49). The idea that children are being taken close to their homes is not surprising because this is an area were a child will most likely be located. The fact that it is happening inside and close to the home is concerning because these are areas where children should have increased protection.

This raises the question of how are these offenders can so easily lure children away from their protective environment. In cases in both this and the 2002 study, some of the offenders simply knocked on the door and the child let them into the house. In another case in this study, the offender broke into the house, assaulted the child in her bedroom, then removed her from the premises to murder and dispose of the body. In cases that occurred outside of the residence, most of the offenders were able to lure the child away by offering her candy, or claiming he had something to show the victim. This clearly shows that children need to be taught not to trust strangers or people they do not know very well. This is a mantra that has been taught to children for decades, but obviously new tactics are required. As suggested earlier, parents need to tell their children, without scaring them, that it is not okay to go anywhere at anytime with a stranger no matter what they offer or say. As well, it has been suggested in the past that parents should set up a code word so that child will always know when it is okay to go with the person. For example, when a stranger says your mom or dad is hurt and they ask you to come with them, the child could ask the code word and if it is not known they will know to run away. Having police tell children about what can happen to them if they go with someone they do not know to a new location, may further illustrate to children how important it is to follow the rules.

The location where most victims were taken from was public streets. As most of the abductions occurred during daytime hours, it is apparent that most abductions occurred during times where there was the potential for a third party to witness the act. A Canadian study found that the majority of stranger abductions occurred in a public place (Forde, Kennedy& Silverman, 1990: 19). One of the most horrifying news reports was on Breanne Voth who was abducted and murdered in Coquitlam, British Columbia (CTV News Website, 2002). It was discovered by police that her prolonged screams for help were heard by a number of people, but no one called the police (CTV News Website, 2002). It is unexpected that many people ignored her pleas for help and assumed that someone else would make the call. There phenomenon is similar to the case of Kitty Genovese who was raped and stabbed 17 times outside her home in a New York (Gado, Crime library website, 2004). Thirty-eight people heard her cries for help, but no one called until it was too late (Gado, Crime library website, 2004). The people need to learn not to assume that someone else has taken responsibility for the situation. The police and the victim would rather have 50 calls for help then none and a dead victim. A system where this could be implemented will be discussed in detail later in this chapter.

Murder and Disposal Sites

The theme that emerged in murder and disposal sites was that the majority of victims were taken to secluded and isolated areas. Results showed that in 78 percent of child, 62 percent of young adult, 83 percent of adult, and 80 percent of Washington State cases the victim was taken to an isolated or secluded area. A research project by Hanfland, Keppel and Weis, found that victims are most often taken from areas close to home and removed to rural areas (Rossmo, 2000: 32). This is only one of a couple of

studies that examined the type of area victims are brought to, so there are few sources of comparison for this section of the data analysis. Research on sexual assault in Canada found that the victims were taken to isolated areas to be assaulted and were then released (Nethery, 2002: 55). From this it was noted that there is a theme in places where offenders will take their victims. Offenders do not want to get caught, so it is logical that they would go to a place where there is a minimal amount of risk of being discovered (Brantingham & Brantingham, 1997:37). In order to increase their chances of not being apprehended, they will go to a familiar location.

The theory proposed in this study was that offenders will operate within their awareness space. In most cases, it appears that the chosen crime site is not random, rather a selected place within the offender's knowledge space (Brantingham & Brantingham, 1993:5). When examining the disposal sites, all of the offender's were familiar with the area. In 47 percent of the child, 25 percent of the young adult and 50 percent of the adult cases, the offender knew the area because he lived nearby. Other offenders knew the disposal sites because they had camped in the area, worked nearby, travelled through the area, and a couple of offenders had committed previous crimes in the area. In this study 62 percent of offenders planned ahead of time where they would dispose of their victims. This provides additional support that over half of the offenders were familiar with the disposal sites. Keppel (1997: 673) also found that in the majority of cases of murder when a sexual assault occurred, the disposal site was pre-planned. Over 80 percent of the victims in the present study were sexually assaulted. All of this provides supporting evidence to the hypothesis that the offenders were familiar with the disposal site.

The emergence of this pattern can be extremely useful in abduction and homicide investigations. If the investigators have suspects in mind, they can question them about where they have lived in the past, places they have worked, activities they like to engage in and so on. Using this information, the investigator can key into potential areas to look for the victim. In addition, when finding a body and trying to identify who the offender is, knowing the location can help narrow down the list of suspects. By finding out who is familiar with the area where the body was found could provide a link between the body and the offender. It is the combination of this and other pieces of evidence that might help solve the case. Although people have a number of different areas that they are familiar with the patterns and locations chosen will help investigators prioritize which sites to look at first and which can be left to examine later. The predominant theme in these cases was the offender will go to a place located close to their home. Investigators can start by looking at isolated areas close to the victims and offenders home, look in places where the offender worked, and liked to engage in recreational activities, as well as following any leads to possible disposal areas. Investigators should keep in mind that offenders want to keep the crime as simple as possible. There is minimal likelihood that the offender will take a victim to an area that is hard to access, so these types of areas can be eliminated. From this study it seems the best place to look is in a secluded area close to the offender's home that is easy to access, but not frequented by many people. The information in this thesis is not the answer to solving abduction cases, rather it is an additional tool that police can use when conducting an investigation.

As the collection of evidence is crucial to solving a crime, investigators need to identify all the crime locations in order to gather the most evidence. In that regard, it is

important to distinguish whether the body was moved after death and if the victim is more likely to be buried or left in the open. In previous studies it was found that in cases where a vehicle was used 5 percent of bodies are buried, 17 percent are found in the water and less then half are concealed (Rossmo, 2000:31). When a vehicle was not used 57 percent were concealed, 97 percent were outdoors, 12 percent buried and 20 percent of victims were discovered in water (Rossmo, 2000:31). A 1988 study found that 58 percent of victims' bodies were hidden (buried or covered) and 42 percent were left in exposed areas (Ressler et al., 1988: 58). Similar results were found in the present study. Forty-three percent were moved and 36 percent were not moved after being murdered. The movement of the body did not seem to affect whether the body was concealed as almost all of the bodies were buried or covered-up with twigs and branches. In only a couple of cases the victims were buried, for the most part victims were covered up by objects such as branches or debris.

The knowledge of whether the body is likely to be buried or in the open will aid in what type of search should be conducted. The results in this study show that it is likely the case that the body is concealed, so looking in open areas is more likely to delay than assist the investigations. There were no cases in this study where the body was buried deeply, so investigators can focus their attention on digging shallow graves, and looking in areas with bushes or debris that could be used to cover up a body.

All of this information shows that the offenders are operating under the conditions that they do not want to get caught and will take the precautions to avoid detection. In many cases where the body was moved, it was never ascertained where the murder had taken place. Thus, moving the body and the murder location never being discovered

eliminated a large portion of evidence that could have quickly identified the offender. By concealing the body, this also extends the time it will take to locate the body. As aforementioned, for children it took an average of 14 days to find the body and for young adults it took 52 days. The amount of evidence that will remain after this period of time is minimal, which makes it even harder to identify who is responsible. Again this shows that by using the knowledge of potential suspects, or in some cases the offenders, awareness space this will assist police in recovering the body in a shorter amount of time. In addition, knowing how far an offender will take the body will decrease this time even further.

The Distances

Small versus Large Cities

The focus of this study was to see if there were any patterns that emerged in how far the offender travelled to dispose of the victim's body. Originally all the data were looked at as a group and no patterns were found. However, when looking at the data in separate groups it became apparent that there were differences in the distances travelled between populations below 50,000 and populations above 50,000. This section will focus on the results that were found in the child category.

Every Canadian child in this study was initially contacted within 3 km of their home. The average distance, for small and large populations, were both less then 1 km from the victim's residence. This finding is consistent with previous research that stated that most victims are abducted from areas that are close to their residence (Rossmo, 2000: 32). On average, for both population sizes, the offender lived around 7 km away from the

point of initial contact. In larger cities the average was slightly closer at 4 km and for smaller cities was 12 km. This shows that offenders do not have to travel as far in larger cities to find a victim due to increased availability of target populations.

When comparing distances between the victim's residence to offender's residence it was found that victims lived very close to the offender's residence. In small cities, over 66 percent of the victims lived within 5km of the offender and in larger cities 75 percent lived within 5 km. In fact, in the larger cities almost half of the victims lived less then 1 km away from the offender. This finding was also consistent with previous research. A study by MacDonald discovered that the majority of victim's (70 percent) were living within a 3.2 km radius of the offender's home. David and Canter (1997:31) found that victims lived an average of 2.3 km away from the offender. A second study by Canter also found that most homicides are committed in an area that is close to the offender's residence (Canter & Hodge, 2000:186). The comparison of the above three studies shows that the distances offenders travel in order to dispose of children's bodies is consistent over time because the studies were conducted in 1961, 1997, 2000 and 2004. These results also show that an offender's tendency to select victims close to home holds true across different crime types.

A study conducted on rape victims found that 82 percent of victims lived within the same area as the offender (Rand, 1986: 118). A second study on serial rapist also found that victims live close to the offenders (Warren et al., 1998: 45-46). When examining the distances robbers travel to commit their crimes it was discovered that the majority live within the same town and over a third live in the neighbourhood (Feeney, 1986: 2). This shows that across most crime types, including homicides, that the offender

lives within a close radius of his criminal activities. The study that led to the development of Rossmo's geographic profiling focused on serial murders. This study provides additional support that the techniques used in geographic profiling are applicable to homicide cases. "Geographic profiling is...using crime locations as the basis for predicting the most probable area of offender residence or work place" (Rossmo, 2000: 195).

The distances from the point of initial contact and disposal site also show that the victim has the highest risk of being abducted when she is within close proximity to her residence. Additionally, this is supported by the finding that 51 percent of victims were taken either inside or right outside of their residence. The author's 2002 study also found that victims had a high risk of being sexually assaulted while inside or close to home (Nethery, 2002: 49).

The response to this information is to again, make sure that parents and children understand how important it is to let people know where they are going and when they will be coming back. Even when parents are supervising children around or near the home they must make their child aware of the dangers of being abducted while in environments that are traditionally thought of as safe. As previously mentioned, children have increased safety when travelling with others, so this should be encouraged by parents and by the police when they go into schools to talk to children about safety. Another implication of this finding is that people need to be aware of their surroundings. A number of these abductions occurred during times and places where a third party could easily have observed the offender taking the child. By being more diligent in reporting things that appear out of the ordinary some of these abductions may be prevented or

solved sooner. Whether the abduction is stopped or not, at the very least the police will have the information on what the suspect looked like and other possible details such as whether a vehicle was used and what direction the offender was headed.

In Alberta, a program similar to Amber Alert has been implemented (Filer, 2004). The Amber Alert will be launched this summer in British Columbia (Filer, 2004). Amber Alert is a program that was developed in response to the abduction and murder of Amber Hagerman (Nation Centre for Missing and Exploited Children website, 2004). Amber alert is designed to alert people via the radio, television, and the internet when a child has been abducted (Missing Kids Website, 2004). In order for an alert to be issued the child must be age 17 or under, considered to be in imminent danger, and there must be information of the victim's description and abduction (such as what the offender looks like, and the vehicle being used) (Missing Kids Website, 2004). To date, this system has lead to the recovery of 135 live victims of abductions in the United States (Missing Kids Website, 2004). Keep in mind that most of these abductions were committed by family members (Missing Kids Website, 2004). With this program, if people notice an abduction they can call it into the police and this will hopefully lead to the successful recovery of the victim. A program like this would also emphasize the need for people to report whatever suspicious activity they see and as well not to assume that others have notified the authorities.

When a victim is thought to be dead, the knowledge of how far victims will be taken to the different sites is valuable. This study found a couple of patterns emerge from the data set in the child category. Previous research proposed the idea that offenders will travel farther to the disposal site then they will to the encounter site (Godwin & Canter,

1997: 31). Similar results were found in this study. For smaller cities the average distance from the offender's residence to the murder scene was 24 km and for larger cities it was 4 km. The distance of the offender's residence to disposal site was 26 km for smaller cities and 11 km for larger populations. These distances, for the most part, are substantially larger then the distance travelled to contact the victim.

These results also show a dramatic difference in the distances to the murder and disposal site between larger and smaller cities. The distance from the point of initial contact to the murder scene and disposal sites in populations with less than 50,000 people was an average of 22 km and 29 km. In cities with populations over 50,000 it was established that offenders only travelled 10 km and 13 km to the murder and disposal site. This demonstrates that in smaller cities investigators will have a much larger area to search than in larger cities. This leads to the question of why offenders travel less distance to murder and dispose of the victim than in smaller cities. It is hypothesized that this results from the anonymity provided in a larger population. For example, in a larger population an offender may only have to travel 4 km to put over a 1000 different suspects between himself and the victim, whereas in the smaller population an offender may have to travel three times this distance to achieve the same level of anonymity. This is illustrated by two cases in Toronto, the largest city included in this research, where the offenders travelled less then 10 km to murder and dispose of the victims. In the one case it was less then 3 km.

The results found for the distances to the murder site and disposal site also aid investigators in their search for the victim. If they are dealing with abduction in a smaller city it is apparent that they should be looking at a distance of over 16 km to locate the

victim's body. In addition, they should keep in mind that the offender probably does not live close to the disposal site. There are exceptions to the rule; for example there was one case in a smaller city were the offender disposed of the victim on his own property. However, for the most part this was the pattern in smaller populations. In larger cities, investigators should not limit, but focus their attention to isolated and secluded areas that are close to the victim's residence. It should also be hypothesized that the offender probably lives close to both the victim and the area where the victim was disposed.

Serial versus Single Offenders

Patterns were also found in the comparison between young adult single victims and serial offenders. Most of the victims of the serial killers were young adults, but there were also two children (age 12) and one adult (age 18) included in this analysis. This is why the young adults (single offenders) and young adult (serial killers) were compared to each other after the analysis. All except for one of the victims of single murderers lived in a population of less than 50,000 people. As both of the serial offenders and their victims lived in populations of over 50,000, this section is still a comparison between smaller and larger cities.

When measuring the distance from the victim's residence to point of initial contact it was found that similar to the findings in the child category, the victims lived close to the offenders. The distance from the victim's residence to point of initial contact was slightly greater in the young adult category as it was just below 2 km for small cities and serial offenders as compared to less than 1 km in the child category. Thus, for the young adult category it is illustrated again that the area where a person has the highest risk of being abducted is close to home. Even though a person is close to home, they

must still take the precautions to protect themselves from harm. Similar to the suggestions in the child category, young adults should try to always walk with someone when travelling to different locations. The highest risk area of being abducted was on public streets, so having a companion may discourage the offender from attempting to abduct the victim.

A study by Godwin and Canter on serial killers found that they travel an average of 1.46 km to abduct their victims (Godwin & Canter, 1997: 27). The present study found that the offenders resided an average of 10 km from the victim's home. One of the reasons for this result is that one of the offenders spent the majority of his time finding the best targets and the best places to dispose of their bodies. Through his criminal activities he gained a great deal of knowledge about a large number of areas, which meant he felt comfortable in a number of different locations. In a few cases he abducted his victims close to home, but in most cases there were a substantial distance from his residence. This offender was extremely organized in planning and carrying out his crimes. In regards to the distances travelled to abduct the victim, he took extra precautions to distance these locations from his residence. On the other hand, the other serial killer in this study also travelled quite far to select his victims. It is hypothesized that the offender did this in order to confuse investigators. In summary, in this study the pattern that emerged was that serial offenders will travel farther to find a victim then in a smaller city. When investigators are looking for a serial offender, they may wish to look at offenders who do not live close to all of the victims.

When examining the murder and disposal sites of single incident offenders versus serial offenders, the exact opposite was found from the child category. In the smaller

cities it was still found that the distance between the offender's residence and the murder and disposal site was an average of 13 km. The exact opposite was found for the serial offenders. Serial offenders were found to live an average of 51 km away from the murder scene and 60 km from the disposal site. There was some variation in the distances travelled, the shortest distance was 9 km and farthest was over 100 km, but on average offenders travelled well over 40 km to dispose of their victims. As noted by Levin and Fox the serial offender will often change distances and places they go to dispose of victims as they kill more people (Levin & Fox, 1985: 166). The study by Godwin and Canter found that serial killers travelled an average of 14.3 km to dispose of their victims (Godwin & Canter, 1997: 31). The main difference between Canter's study and the present one is that the one serial offender in this study spent all of his time driving to locations to see if the would be suitable disposal sites, and this resulted in larger distances to the disposal site. Based on this study's results it appears serial killers will travel farther to dispose of the victims' bodies.

The other difference in the young adult category was the result that the serial offenders travelled farther to dispose of the bodies in smaller cities. If one recalls, this was the exact opposite of what was found in the child category. The first reason for this was noted above, as one of the offenders made a point of travelling quite far to murder and dispose of the bodies. Another rational for this was that when an offender was committing more than one murder it was even more important to distance himself from the crime scene. "...as he becomes more experienced, the killer will move the bodies farther and farther away from the place where he abducts his victims" (Ressler & Shachtman, 1992: 116). Other research suggests that after the offender commits his

eighth to tenth offence that he tends to dispose of the bodies closer to home (Godwin & Canter, 1997: 35). In addition, serial killers are generally organized offenders so they will take the steps to secure their anonymity from the victim and the crime scenes (Ressler & Shachtman, 1992: 118). For example, if an offender is committing a number of murders really close to his home then it will likely not take as long to discover who is committing the murders as compared to an offender who takes the victims quite far from his residence.

These findings have a number of implications for investigators of serial murder cases. This study suggests that serial murderers will live farther away from most of the disposal sites, so investigators should keep this in mind when narrowing down the list of suspects. It is suggested by Ressler and Shachtman (1992: 116) that looking at the first disposal site carries the highest probability of locating the offender's residence. Canter and Godwin (1997:35) argue the opposite in that one should look at the most recent crime sites when trying to identify the offender's residence or anchor point. This study's results agree with the first study; the disposal site of the first few victims was a lot closer than the last victims.

Fitting into the Crime Site Selection Model

This thesis set out with the idea that offenders would operate within their awareness space. Brantingham and Brantingham (1993: 4) argue that the criminal event is a result of the individual's intimate knowledge and perception of their surroundings interacting with the presence and motivation to commit a criminal act. They go further to state that people build cognitive maps of the areas that surround them and they use these maps to tell themselves the type of environment that is associated with each area

(Brantingham & Brantingham, 1993: 11). Through a person's awareness space a person will recognize certain areas as "good" for committing certain types of crimes (Brantingham & Brantingham, 1999: 18). Research by Burton (1998: 10) confirmed the idea that offenders will want to be familiar with the areas where they commit crimes. A lot of the research done using this model looks at arsons, burglaries and robberies. However, this thesis results show that homicides also fit into this model.

Throughout the discussion it can be seen how the offender operated within his awareness space. When examining the locations where victims were taken, most of these were close to where the offender lived. This shows that this area is within the offender's awareness space. When analyzing the areas where victims were murdered and disposed, it was also found that the offender's were familiar with these locations. In all of the disposal sites, the offender knew the area because he lived nearby, worked in the area, travelled through, committed other crimes, or had sought out the area specifically. In addition, in over half of the cases the offender had planned the locations to be utilized in the crime before the event occurred. The distances travelled to locate the victims and the proximity to the offender's house also demonstrate that the offenders were operating within their awareness space. In no case was it discovered that the offender did not know the areas where he killed and disposed of the victim. As a result, it is established that the homicides in this study fit into The Brantingham's Crime Site Selection Model.

A Critique of the Research

Sample Size

The first problem with this research was the number of Washington State cases included in the analysis. Out of a possible 25 cases only eight ended up being included in the research. For the most part this was due to the fact that the distances were speculated on as to the actual location of the body. Having a reported distance of between 70-90 miles was far too large to gain any valuable information. As a result, the usefulness of using distances in the eight cases included in the research is limited. In the ViCLAS cases, there was a few that did not match the patterns in the other cases. For example, for the most part offenders did not travel very far to obtain their victim, but in a few cases the offenders (not serial) travelled over 25 km. There will generally be a few outliers in every study, and there is no way of knowing if any of the eight Washington cases would be considered anomalies when compared to a larger sample.

When looking at the cases in ViCLAS it can be noted that there was not a large number of cases included in this research. This is especially true in regards to the number of the Canadian adult cases and serial offenders. The applicability of the results in the serial offender category was questionable because there were only two offenders. Some of the results in this study were different from other studies findings. For example the study by Canter and Godwin (1997: 31) found that serial offenders travel farther to dispose of the bodies until around the ninth or tenth crime. This was not found in the present study. It remains unknown if serial offenders in Canada travel farther or due to the sample size, the study's results are not representative. The same can be argued in the

adult category. With only six cases, it is difficult to ascertain the applicability of these results to cases that may occur in the future.

This study included all of the solved non-familial abductions that ended in homicide, but it may have been beneficial to seek out additional cases from other sources. Apart from HITS, there are many other databases that include information on non-familial abductions that end in homicide. The FBI has a database called the Violent Criminal Apprehension Program (ViCAP). It is designed to describe how victims will be targeted and provides a construction of the type of person committing these offences (Ford, 1990: 115). As well, the United Kingdom also has a similar database called Home Office Large Major Enquiry System (HOLMES) that was designed to link cases together and identify potential offenders (Doney, 1990: 105). Either one of these databases would have been useful in providing additional data for this study. The main reason that this information was not sought out was due to time constraints, and an intention to focus on Canadian cases.

Distances

Another problem that can be identified with the research is the measurement of the distances. In most cases the actual distance (in crow-flight) is measured between locations. However, when it comes to many of the distances measured to the disposal sites, these can only be stated as within 0.5 km of "actual" location. As many of the bodies are dumped in locations that did not have set addresses, it is hard to pinpoint the exact location that the body was discovered. As listed above, many of the bodies were disposed of in wooded areas. This makes it extremely hard to find the exact location where the body was left. In some cases investigators took exact measurements of where

the body was found, while in others the case it is listed as approximately X number of kilometres from the closest road. All of the investigators were contacted to find out exactly where the body was found, and for the most part the location is likely to be very close. However, it is not certain that the measured distance is the exact distance that the offender travelled to dispose of the body.

There were no measurements included in this study as to the distances of the travel routes that the offender took. These distances would be helpful in that it would give investigators additional information as to how far the offenders travel to murder and dispose of their victims. Crow-flight is the shortest distance from one location to the other. On the other hand, the actual distance travelled is much longer. For example, measuring crow flight from Vancouver to Kamloops is going to be a lot shorter than the actual driving distance from Vancouver to Kamloops. Thus, the distances that the offender travelled are actually much farther then what is included in this study. Crow-flight allows investigators to know the distance in any direction as to how far the offender is likely to go, but not the distance that needs to be travelled in order to get to that location. If an investigator is using the information provided in this study, unless the investigators have access to Microsoft MapPoint ® when they are trying to decide what areas to look at some may be over looked due to the distance it takes to get to that location. The distances in this study are functional if the police want to draw a circle of, for example, a 10 km radius around the last scene location, but not if they want to know the actual distance travelled to transport the victim.

CHAPTER SIX: CONCLUSIONS

This thesis provides insight into non-familial abductions that end in homicide. The spatial factors showed that there are distinct areas that offenders take their victims and distances revealed that offenders will vary on how far they will travel depending on the size of the population. The findings in this research set the stage for additional research to be conducted in this field. There are a number of other studies that would aid in the identification of disposal sites and faster recovery of victims' bodies. These include a look at additional distances involved in the disposal sites, the identification of travel routes, research on prostitution, disorganized and organized offenders, interviewing offenders who commit homicides, questions to be included in ViCLAS and HITS and how to conduct a successful study.

Additional Distances

The one distance that was not examined in this study was how far away from the nearest travel route the body was found. The distances between where the body was found and the nearest roadway or travel route could provide investigators with the knowledge of how far they should look from the path or road to find the victim. Previous research in the United Kingdom found that the child was taken no more then 91.4 meters from the footpath (Rossmo, 2001: 31). A study that looked at these distances would help narrow down the search field even further.

The next distance that should be examined is the travel route. First, what travel routes were taken by the offenders needs to be identified. Having this information would be extremely useful to investigators because it would provide insight into the type of routes that offenders take to dispose of the body. For example, this could have identified whether offenders are more likely to travel on main routes such as highways or major roads, or on the back roads where they are less likely to be noticed. By identifying the route taken this could assist investigators in searching possible travel routes in hopes of finding the offender before he has the opportunity to assault and murder the victim. As well, knowing the travel routes gives investigators a comparison between crow-flight and the actual travel distance. This way they would know the most probable area that the offender would travel in relation to the time and distance that it would take to get to the location.

Another study that could be conducted is mapping the crime and assessing the areas surrounding the crime sites. From this, one could see whether the locations the offender chose were actually the closest secluded areas or if the area was chosen because the offender was most familiar with it. This would also allow one to see the potential travel routes that could be taken to get to the disposal site. In addition, information on why the particular victim was chosen in consideration with the type of area she lived may also have been identified. For example, it may have been seen that the victim was chosen because she lived close to the offender, near an area that was secluded and isolated, and she lived in a place that was well populated so the identification of the offender would have been harder. All of this information would provide investigators with the

knowledge of how criminals chose the places they target, murder and dispose of the victims.

Disorganized and Organized Offenders

When discussing offender types, it is often the case that perpetrators are placed into one of two categories, organized or disorganized. The crime sites of the two offenders are theorized to be different. Organized offenders will carry out their act in a very controlled and calculated manner (Woodworth & Porter, 1999: 247). The crime scene will appear more controlled and organized and, as a result there is likely to be less evidence left behind and fewer signs of a struggle between the offender and the victim. The disorganized offender's crime scene, on the other hand, will often exhibit signs of frenzied, uncontrolled and spontaneous behaviour (Woodworth & Porter, 1999:247). Although there are other differences between the two crimes sites, such as if a weapon is left behind or if restraints were used, the important factor is, if an investigator is able to distinguish between the two types, this could lead to valuable information being obtained.

Previous research on disorganized and organized offenders has looked at how they plan their crimes, how they transport the victim, and how the disposal site is chosen. Ressler et al., (1986: 288) conducted a study that compared the differences between the organized and disorganized offender. They found that the organized offender is more likely to plan his crimes and use a vehicle in the commission of the crime (Ressler et al., 1986: 293). On the other hand, disorganized offenders are impulsive in committing their crimes and are less likely to use a vehicle to move the victim from the encounter site to the disposal site (Ressler et al., 1986: 296). A second study by Ressler and Shachtman (1992: 118) showed that the disorganized offender is more likely to use public transit

then a motor vehicle when committing crimes. This means that the distances travelled between the two types of offender is likely to be extremely different. A study that distinguished between the two types of offenders could discover whether there are differences in the distances taken between an organized and disorganized offender. If a difference was found, investigators could use this information in future cases. When examining the crimes sites and the type of offender is apparent, this could assist the police in deciding the search areas for the victim's body. It is argued by Ressler and Shachtman (1992: 115) that organized offenders select victims who are strangers. Thus, it would be interesting to see if this is the case with the offenders in the present study.

Another useful study on disorganized and organized offenders is how they dispose of the victim's body. Ressler and Shachtman (1992: 118) found that organized offenders are more likely to conceal their victims and take the steps to ensure that the anonymity is maintained between the victim and the offender. For example, Ted Bundy was notorious for burying his victims and placing them in locations that would be impossible to discover. In fact, many of his victims have not been found to this date (Ressler & Shachtman, 1992: 118). This research is based on serial killers, so it would be intriguing to find out if this also applies to offenders who only commit one homicide. Similar to the distances travelled, if investigators are able to identify if an organized or disorganized offender committed the crime this will aid them in determining whether the body is likely to be concealed or left out in the open. It will also help identify potential areas to search. Organized offenders will take the extra step to avoid detection, so the location chosen will be secluded and not easily discovered by police (Ressler & Shachtman, 1992: 120). The disorganized offender will also not want to be detected and

will still be operating within his awareness space, but will likely not take the same steps to conceal the body in an isolated area.

Interviewing Offenders

Interviewing people who have committed a non-familial abduction that ended in homicide could provide additional insight into the phenomenon. Palys (1997: 29) argues a great deal of information can be obtained by including qualitative aspects into a quantitative study. This research could examine why offenders are choosing certain locations, victims, and distances to travel. Questions could be asked on how the travel route to the murder and disposal site was chosen. It could be asked what makes up the ideal disposal site, is it the distance to get there, the surroundings or was it just the most convenient area. The present study found that the locations where the children are taken from are public streets and areas near the victim's home. A qualitative study would be able to ascertain why offenders take the risk to access victims in these areas instead of areas that pose a lower risk such as the mall. In regards to actual victims targeted, questions should be asked to examine whether the choice of the victim had any relationship with the surrounding areas, and proximity to an "ideal" location to murder and dispose of the body or if the victim was taken because she was an available target. This study may also lead to questions about the disposal site and distances that were never thought of when conducting a quantitative study.

Prostitution

It is hypothesized that the distances involved in prostitutes being murdered as compared to non-prostitutes are not comparable. This is due to the fact that the element

of choice is taken away as to where the prostitutes can be located and this will affect the other distances, such as murder and disposal site, in the crime. A study that looked at only prostitutes and distances would be helpful as it would identify if there are any patterns that emerge in regards to the distances travelled to the murder and disposal site. Similar to the present study, this type of information will help investigators to locate the bodies of prostitutes that are suspected to be the victims of foul play. It is also felt that a study on how offenders chose the disposal sites of prostitutes would be informative. It would be interesting to see if the choice of murder and disposal sites resembled that of non-prostitute murders. This information could provide police with the knowledge of what locations the prostitutes are being brought to in order to dispose of their bodies. With so many missing women (suspected prostitutes) in Vancouver, British Columbia as well as other cities, this type of study could aid investigators in their work to find these women.

ViCLAS and HITS

ViCLAS and HITS both provide a wealth of information, but there are additional questions that should be added to the report. One of the most important questions that should be added is how the offender is familiar with each scene and why that particular location was chosen. Knowing why an offender makes the choice to go to a certain area could help investigators in future. A second question that should be added to ViCLAS is the distances that are involved in the crime. Previous research has shown that the distances involved in the selection sites of victims is not likely to change over time (Godwin & Canter, 1997: 27). Adding distances to ViCLAS gives investigators instant

access to the distances involved in the crime which allows them to evaluate, based on past cases, the distance that the offender in the present case may have travelled.

HITS does provide information on the distances involved in the crime, but the quality and usefulness of the detail is limited. The database does provide specific addresses as to where the victim and offender reside, which allows for accurate mapping and calculations of the distances. When it comes to the distance travelled to the disposal site, the range of approximation is so broad that it does not narrow down the information enough so that it can be statistically analyzed. In order for this information to be helpful it needs to be more specific. The distance should be at least within a one mile radius of where the victim was found. As mentioned above, this is the primary reason that most of the Washington State cases were eliminated. Having this information adjusted would allow for a research project to be conducted in order to find out if the Washington State cases follow the same trend as the Canadian cases.

The second thing that would improve the HITS database is to distinguish between murder and disposal sites. Presently, this is not done and this results in a lot of lost information. It is extremely useful for investigators to know if victims are being moved to different locations because it will aid them in the search for evidence that may assist in solving the crime. In addition, knowing the average distance from the murder scene to disposal site can aid in finding the body. In a few cases investigators have come across a scene where it appears foul play took place, but they are unable to locate the victim. Most times if there is no body present there cannot be a conviction, because there is no solid evidence that the victim is dead. Knowing how far most bodies are moved can help investigators narrow down search fields, as well as identify potential areas to investigate.

Organizing the Research

Timing is the key to successfully completing a research study on a database like ViCLAS or HITS. There are many factors such as security clearance, ViCLAS approval and personal problems that can lead to a study not being completed. One of the biggest difficulties in conducting this type of study is getting access to the data. As the researcher had already conducted one study for the RCMP, the access to the data for this study was easily obtained. However, should someone want to conduct future research in this area they should keep in mind the time it takes to access the material. One of the first processes that the researcher must go through is to obtain security clearance. This process can take anywhere from four months to well over eight months. Thus, the appropriate steps to obtain clearance should be taken well before the researcher intends to conduct his or her study. As well, approval also has to be obtained from ViCLAS to conduct the study. This requires the researcher to fill out a detailed description on the study and the personnel who will be involved. Thus, the appropriate allotment of time must be given for the completion of this process. In addition, the information obtained for the study has to be extracted from ViCLAS by a ViCLAS analyst. These analysts have a full workload, so it is best to inform them well ahead of time exactly the type of information being sought and when the research is schedule to commence. It is often the case that analysts do not have the time to go back and obtain additional information that one may need, so it is important to include all the questions within the first inquiry.

The problem that arose in this study was getting access to the material from HITS. A meeting was set up well before the data was required, and it still took almost eight

months to obtain the information. Due to budget cuts and the elimination of job positions, the HITS analyst was not able to extract the data for a lengthy period of time.

The last suggestion on how to organize a study on ViCLAS or any other database of this type is that the information is not compatible with programs such as Microsoft Excel or Statistical Package for the Social Sciences (SPSS). Therefore, the researcher must allow time for the extraction of data from ViCLAS or HITS and then the transference of data to the statistical software of choice. Following these steps can aid in an efficient examination of the data in ViCLAS, HITS or similar databases.

Summary

In conclusion, this research set out to examine the distance patterns and disposal sites in non-familial abductions that end in homicide in Canada and Washington State. This study's objective was to determine if there are any patterns in the choice of disposal sites and/or the distances travelled to the victim's residence, point of initial contact, murder scene and disposal site. A look at the previous research showed that there is minimal information available on this topic. It was found that most of the literature focused on the distances from the victim's residence to the offender's residence. The studies that were performed on the distance to the disposal sites were conducted in the United States and the United Kingdom, so it was unknown if the results were applicable to Canada. As most of the previous studies were quantitative, it was decided that this study would also take a quantitative approach.

The analysis of these quantitative variables resulted in a number of different patterns emerging. It was found that the majority of offenders are familiar with the

disposal site and in most cases it is chosen before the commencement of the crime. It was also discovered that there is a difference in the distance travelled in a larger population as compared to a smaller population. Other key findings included the locations and times victims were abducted, victim and offender demographics, and the types of areas offenders choose to dispose of their victims. Based on this analysis it is also confirmed that offenders who commit homicides do so within their awareness space. As such, it is found that homicides fit into the Brantingham's Crime Site Selection Model.

This thesis allows for a look into the factors involved in non-familial abduction that ends in homicide that were previously unknown. To this point, investigators were unaware whether any patterns existed in regards to the distances involved, and how the offenders chose the disposal sites. With the information provided in this study, this will allow investigators to have increased knowledge when making decisions as to what areas should be searched for a missing person. Whether the person is alive or dead, time is of the essence, and any information that can help locate a victim is invaluable to investigators. In conclusion, this study provides new materials for investigators to work with and it also sets the stage for additional research to be conducted in this field.

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SIMON FRASER UNIVERSITY

OFFICE OF RESEARCH ETHICS

BURNABY, BRITISH COLUMBIA
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June 30, 2003

Ms. Kristy Nethery
Graduate Student
School of Criminology
Simon Fraser University

Dear Ms. Nethery:

Re: Abduction related homicide: An examination of body dump sites
ViCLAS

I am pleased to inform you that the above referenced Request for Ethical Approval of Research has been approved on behalf of the Research Ethics Board. The approval for this project is for the term of the period of the grant, as defined by the funding agency. If this project does not receive grant support, the term of the approval is twenty-four months from the above date.

Any changes in the procedures affecting interaction with human subjects should be reported to the Research Ethics Board. Significant changes will require the submission of a revised Request for Ethical Approval of Research. This approval is in effect only while you are a registered SFU student.

Your application has been categorized as 'minimal risk" and approved by the Director, Office of Research Ethics, on behalf of the Research Ethics Board in accordance with University policy R20.0, http://www.sfu.ca/policies/research/r20-01.htm. The Board reviews and may amend decisions or subsequent amendments made independently by the Director, Chair or Deputy Chair at its regular monthly meetings

"Minimal risk" occurs when potential subjects can reasonably be expected to regard the probability and magnitude of possible harms incurred by participating in the research to be no greater than those encountered by the subject in those aspects of his or her everyday life that relate to the research.

.../2

Please note that it is the responsibility of the researcher, or the responsibility of the Student Supervisor if the researcher is a graduate student or undergraduate student, to maintain written or other forms of documented consent for a period of 1 year after the research has been completed.

Best wishes for success in this research.

Sincerely,

original signed by Dr. Weinberg

Dr. Hal Weinberg, Director
Office of Research Ethics

c: Dr. Gail Anderson, Supervisor

/jmy