

An Examination of “The Bedroom Rapist”

by

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Abstract

Research has found that sexual offenders are rational and consistent in their crime site selection strategies. However, one crime site location that has been largely understudied in sexual offending research is the 'bedroom rape' attack. Bedroom rapes are described as sexual assaults that occur within a victim's own residence. This study uses Generalized Estimating Equations to examine data from a sample of 347 sexual assault events to determine which offender modus operandi and temporal variables are significant predictors of bedroom rape events. Findings indicate that a number of modus operandi and temporal variables are significant predictors. For instance, bedroom rape events are more likely to involve premeditation, coercion and an offender who commits a burglary in addition to the sexual offence. Conclusions on why offenders may choose this type of crime attack location are drawn and implications for situational crime prevention measures are discussed.

Keywords: sexual offending; crime site selection; situational crime prevention; serial sex offenders

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Chapter 1.

Introduction

Sexual assaults gain a great deal of media attention and public discourse. Stories describing offenders breaking into victim's homes and assaulting the occupants inside cause people to feel unsafe in their homes and neighbourhoods (QMI Agency, 2012), and news reports describing cases of these can be found across Canada (e.g. CBC News, 2017; Dufresne, 2017). There is strong pressure from the public to arrest sexual offenders and prevent these crimes from occurring. Stranger sexual assaults can pose a particularly difficult task for law enforcement because there is no obvious tie between the offender and victim to help the police narrow down possible suspects. Given the serious nature of sexual crimes, it is essential to understand where, when, and who are committing these offences and to develop strategies that may prevent future offences from occurring.

Criminological theories have tended to focus on criminality rather than the crime event itself in an attempt to understand why an offender was motivated to commit their crimes (Deslauriers-Varin & Beauregard, 2010). However the location of the offence can also provide important details for understanding a crime event. Important questions to answer are whether offenders choose particular locations to offend at and whether offenders are consistent in where they offend. Research tends to suggest that sex offenders do choose their crime locations in a rational manner (Beauregard, Rossmo & Proulx, 2007) and that there is consistency in their crime site location choices (Harbers, Deslauriers-Varin, Beauregard, & Van Der Kemp, 2012), illustrating the importance of examining situational factors of an offence.

An environmental criminological approach focuses on the criminal event instead of on the offender. The crime event becomes the unit of analysis and the focus moves to the location and the environmental characteristics that allow a crime to occur (Wortley & Smallbone, 2006). Instead of focusing solely on the offender, criminal behavior is viewed as an interaction between the offender, the victim and the context that the crime occurs in. This approach also provides researchers the ability to suggest situational crime prevention measures that may help prevent future crimes from occurring. Situational

crime prevention is a problem-solving approach that “targets specific forms of crime in specific contexts” (Wortley & Smallbone, 2006) and finds solutions specific to the crime event under investigation. The aim is to modify the environmental factors that create opportunities for a crime to occur and to make an environment safer. As sexual offenders have been found to use rational decision making before and during their offences, a rational choice approach can also be used to develop situational crime prevention strategies. For instance, if it is assumed that offenders use a cost-benefit analysis to decide of whether they will commit a crime (as described by Cornish & Clarke, 1986), it would be helpful to come up with situational changes that would decrease the benefits and/or increase the costs of committing a crime in a certain location, and thus reduce the likelihood of a crime occurring (Leclerc, Wortley, & Smallbone, 2011).

A situational crime prevention approach has been used with sex crimes, particularly with sexual offences against children, and a number of measures have been suggested to reduce the likelihood of these offences occurring. For example, Leclerc, Wortley and Smallbone (2011) examined crime scripts of sexual offences against children and determined that prevention programs that built a child’s assertiveness and self-esteem may make it more difficult for offenders to gain their victims cooperation, and that locks on bedroom and bathroom doors would decrease a child’s vulnerability when they are at a location that lacks a guardian/supervision. McKillop, Smallbone, Wortley and Andjic (2012) have also suggested that an increase in screening and monitoring of employees who work with children could also reduce the chances of a sexual assault occurring. Measures have also been proposed for reducing sexual assault aimed at adult victims, for instance increased surveillance in private locations or neighbour watch programs in residential areas (Hewitt, Beauregard & Davies, 2012).

In response to the investigative difficulties of understanding and solving stranger sexual assault and the lack of studies focusing on crime location factors, the current study focused on an understudied form of stranger sexual assault - bedroom based assaults- in an attempt to shed light on these types of offences and to suggest crime prevention strategies that may be helpful in decreasing the likelihood of these offences occurring.

Chapter 2.

Literature Review

2.1. Theoretical Framework

Brantingham and Brantingham (1991) describe crime as a complex event which occurs when four elements are present: a law, an offender, a target and a place. A motivated offender is not a sufficient factor to produce a criminal event if the other elements are not also present and conducive to the commission of an offence. Within sexual violence research, studies examining the offender (e.g. Oxnam & Vess, 2008; Woessner, 2010) and targets (e.g. Ingemann-Hansen, Sabroe, Brink, Knudsen, & Charles, 2009) of sexually based crimes are abundant. However, an examination of the 'place' or location a crime occurs at is an area that has not received as much attention in the literature (Rebocho & Silva, 2014). Typologies focused on the offender or victim of an offence can be very informative but disregard the importance that situational factors have on criminal behaviour (Deslauriers-Varin & Beauregard, 2010). Offenders psychological variables have also only been shown to be moderate predictors of criminal behavior at best (Hebenton, 2011), it may therefore be imperative for criminological research to turn towards the study of situational and environmental factors to help better understand and prevent criminal activity.

Examination of the location of a crime event is important because crime does not occur randomly, but within a particular situation against an 'environmental backcloth' (Brantingham & Brantingham, 1993; Deslauriers-Varin & Beauregard, 2014), and the situational factors present in a location will have an influence on the offender's behavior and commission of the crime. Brantingham and Brantingham (1993) define the environmental backcloth as "the uncountable elements that surround and are part of an individual and that may be influenced or influence his or her criminal behavior" (p. 6). A motivated offender will interpret the environmental backcloth according to their own needs, knowledge and experience (Lundrigan, Czarnomski & Wilson, 2009), and perceived criminal opportunities will influence their level of motivation (Brantingham & Brantingham, 1993). The environmental backcloth perspective suggests that there are numerous environmental factors that influence behavior and decisions made about

criminal activity, including the offender's personal cognitions as well as characteristics of the environment itself. The backcloth will emit cues that make crime more or less likely to occur and the individual will create and search for cues, since they are part of the backcloth as well (Brantingham & Brantingham, 1993). One type of location may be perceived by some as conducive to criminal activity while another individual may not see it the same way. The decision to commit an offence will involve the offender's appraisal of the situation and crime site to assist them in their decision making (Brantingham & Brantingham, 1993).

Crime will occur when a person motivated to commit an offence finds an appropriate target and a situation that they deem suitable for crime commission (Brantingham & Brantingham, 1993). The suitability of a location will depend on the individual and the type of crime (Brantingham & Brantingham, 1993). A suitable location for shoplifting will not be the same as that for a sexual offence for example. Personal characteristics of the offenders can also influence their perception, for instance an inexperienced offender may perceive a situation suitable for crime where an older, experienced offender would not. Once a suitable target and location is found by an individual the situation can then influence the offending behavior and modus operandi strategies the offender chooses to employ to carry out their criminal activities.

An offender will alter their behavior in a way that is most beneficial for the location the crime occurs in (Douglas & Munn, 1992 as cited in Bateman & Salfati, 2007). For example, the location an offender chooses to offend at can influence the level of force or coercion needed to detain the desired victim, or a location may require more premeditated planning by the offender to ensure successful completion of the crime. When examining an offender's crime scene behaviors, it is therefore important that the crime location and the contextual factors of that location be taken into account. Offending behavior for one type of crime location may not be generalizable to offenders who commit their offences at other locations, as different situational factors may influence the behavior of offenders in different ways. Thus, offenders' behaviors appear to be tied to the selected crime site. This also means that prevention strategies need to be geared towards the specific crime event being examined.

Theories of crime site selection emphasizes the impact the situation can have on the likelihood of a crime event occurring (Hebenton, 2011). An offender's perception of

criminal *opportunity* will vary depending on the situation and location they are in. The opportunity perspective is concerned with the location of crime events and posits that certain situations are more favorable to the commission of crime than others (Hebenton, 2011). An opportunity perspective provides a unique viewpoint of an offence from which to inform prevention strategies, in particular situational crime prevention strategies. The analysis of a crime event can best be examined from a rational choice perspective (Cornish & Clarke, 1986) or a routine activities perspective (Cohen & Felson, 1979).

Rational Choice

Rational choice theory suggests that criminal behavior is not fundamentally different from non-criminal behavior; instead criminal and non-criminal actions are rational and goal-oriented (Clark & Felson, 1993). Offenders will weigh the costs (e.g. risk of apprehension), rewards (e.g. money, sexual intercourse, excitement) and effort required to complete an action and will choose a behavior that will maximize the benefits and minimize the costs. If an offender believes that the potential benefits will outweigh the potential costs he will likely engage in the deviant behavior (Cornish & Clarke, 1986). In this way, offending behavior and decision making is assumed to be rational and deliberate.

Though decision making is deemed to be rational, rational choice theory recognizes that perfect rationality is impossible and instead includes the concept of *bounded rationality*, which proposes that though decisions are primarily rational they are still constrained by time, the information the offender has accessible and the offenders own abilities (Cornish & Clarke, 1986). Criminal behavior may arguably be more constrained than non-criminal behavior because there is a critical time constraint against the offender as well as a lack of important information, for example how the victim will react, if a witness will unexpectedly appear, or even a lack of knowledge about the location the offender is interacting with the victim in. Clarke and Cornish (2001) state that offenders “are generally doing the best they can within the limits of time, resources, and information available to them. This is why we characterize their decision making as rational, albeit in a limited way (p. 25).” An offender’s decision making can also improve over time as they gain experience in criminal offending (Rossmo, 2000). Sexual offenders have been shown to display rationality in the commission of their offences (Beauregard & Leclerc, 2007; Pedneault, Beauregard, Harris, & Knight, 2015) but the

degree of rationality is likely to vary depending on the situational context and their past criminal experiences.

The rational choice perspective allows for an examination of the behaviors used by an offender to understand the “how” of the crime (Leclerc, Proulx, & Beauregard, 2009). In other words, an offender needs to make a series of decisions before committing an offence, and examining each of these decisions will help researchers better understand the crime-commission process. Proulx, Ouimet and Lachaine (1995) scrutinized the decisions made by a group of sexual offenders with child victims and found that the offenders did need to make a series of decisions in the crime commission process, such as the choice of hunting ground, selection of a suitable victim based on desired characteristics, the method used to approach the victim, and how they would get the victim involved in sexual activity (as cited in Leclerc, Proulx, & Beauregard, 2009). Of particular importance to the current research is Proulx et al.’s (1995) findings that the strategies used by an offender may be influenced by situational factors, for instance a coercive method of obtaining sexual activity being more likely at a public hunting ground. Other modus operandi strategies can also be influenced by the location an offender commits an offence at because certain strategies may be perceived as being more beneficial for successful completion of an offence. Sexual offenders have been found to use a variety of strategies to attain certain goals (e.g. gaining a victim’s trust) that will help them successfully commit a sexual assault (Leclerc, Proulx, & Beauregard, 2009). The type of strategy used can be chosen in a rational way based on an offender’s analysis of which strategies will be the most successful. Cornish (1994) proposed the concept of crime scripts to analyze the crime-commission process. Crime scripts are the accounts of the strategies adopted by offenders to commit their crimes. These crime scripts provide a framework to examine the crime-commission process, the decisions the offender must make at each stage of the crime commission process and the situational variables that can influence an offenders modus operandi.

Cornish and Clarke (1986) also emphasized the importance of differentiating between different types of crimes (e.g. sexual assault, burglary, robbery, etc.). Different crimes will have different situational factors present and these differences will influence the decisions made by the offender (Cornish & Clarke, 1986). Different types of offenders will also focus on different situational factors depending on the type of crime they are considering committing (Cornish & Clarke, 1986). Ease of access into a

commercial building may be an important factor for a burglar to focus on but is not an important factor for crimes of fraud for instance. Also, the perceived goals and rewards one offender will look for can be very different depending on the type of crime. Rational choice emphasizes the importance of the situational context and thus this theory is well suited to being applied to crime events rather than individual offenders when examining decision-making.

Offenders can also alter their modus operandi strategies over time as their experience in criminal activities grows (Rossmo, 2000). Cornish and Clarke (1986) argue that there is a difference between criminal events and criminal involvement. The decision to commit one specific crime is made over a short period of time and is based on the immediate information the offender has available to him regarding the situation at the time. For instance, an offender's decision to break into a victim's home and commit a rape may depend on whether there is access into the home and whether there are witnesses. Criminal involvement on the other hand refers to the decision-making process offenders use to decide whether to continue in the crime commission process or whether to desist (Cornish & Clarke, 1986). Criminal involvement is a multi-stage process that occurs over a longer period of time and will require a wider range of information (Cornish & Clarke, 1986). The information an offender needs or uses when deciding to continue in the crime commission process, and becomes specialized in offending behavior, will be different from the information used if they choose to desist from offending. Also, some variables may not be as relevant when deciding to commit future sexual assaults, for example the rewards of an offence may become more relevant than the time of day.

While the type of crime, the location of crime and the experience of the offender can influence their level of rationality and decision making, different stages of a crime can also influence decision-making and offending behavior. An offender will make different decisions and require different information prior to committing an offence compared to decisions made after they commit an offence. Rossmo (2000) has highlighted some important stages of a criminal event: the victim encounter location, the location of the attack, and the victim release site. An offender's decision making should be examined across each phase since rational decision making will be evidenced by the behaviors he adopts throughout the crime — from choosing an appropriate crime site to securing a victim, to completing the assault.

Studies that examine target and crime site selection and the influence the situation can have on an offender's behavior and decision making, often focus on crimes such as burglary. Burglary is also one crime that has been widely examined from a rational choice perspective. Burglaries are generally considered rational crimes because they are usually planned beforehand and burglars select a specific dwelling to offend before commission of the crime (Wright & Decker, 1994). The decision of target selection for burglaries is based on factors such as ease of access and escape, likelihood of being seen by witnesses and the specific type of goods that can be found at a specific location (Cromwell & Olsen, 2004). Nee and Taylor (1988) found that residential burglars do a cost-benefit analysis before the commission of their offence and Cromwell et al. (1991) were able to identify a three-step decision making model that burglars use to evaluate a burglary target. Research has found evidence that rapists share similar geographical patterns to burglars (Canter & Larkin, 1993; Lebeau, 1987) so extending this area of research to sexual offenders may be important for understanding why they chose certain locations to offend at, and the degree of planning that goes into location selection.

Routine Activities

Another major criminal event perspective is the routine activities approach. Routine activities theory posits that the likelihood of a predatory, direct-contact crime occurring depends on the convergence of a motivated offender, a suitable target (i.e. a target deemed suitable by the offender for her age, size, vulnerability, etc.), and the absence of a capable guardian (Cohen & Felson, 1979; Felson, 2002). The absence of any one of these factors could prevent an offence from occurring (Cohen & Felson, 1979). Conversely, contact between a victim and a motivated offender in the absence of a capable guardian simply because of the parties' individual routine activities can increase the likelihood of that crime, even without an increase in the offenders' motivation to offend. Thus, the most important factors to take into account from this perspective, are the routine activities of the parties involved, regardless of the level of motivation from the offender. Depending on the routine activities of the actors involved more or less opportunities for offending can be created if there is convergence of the victim and offender in space and time.

From this perspective, crime needs to be studied as a criminal event, in other words, each offence is an event that takes place in a specific location in both space and time and involves particular actors. Routine activities proponents focus on the space and time a crime event occurs within to understand the “why” of an event (Cohen & Felson, 1979). It is often presumed that the offender is already motivated so the focus is on the spatial-temporal conditions that encourage the motivation to result in a criminal offence (Cohen & Felson, 1979). Daily non-criminal routine activities (e.g. work, school) are just as important as criminal activities because criminal activity will usually occur while offenders are engaged in legal/legitimate routine activities (Cohen & Felson, 1979).

People spend a great deal of time at their homes, workplace and places of leisure so it is likely that they will be victimized at these same locations. As people move through their routine activities they come into contact with potential victims, offenders and guardians which means as individuals move through their environments they are at risk of being victimized (Cohen & Felson, 1979). Thus, the routine activities of victim and offenders have an influence on the locations chosen for crime commission. If an offender has been successful in finding desirable victims in one location of his routine activities (e.g. on his way from work to home) then it is likely he will continue searching in that same location for victims. Therefore, daily routine activities of sexual offenders will be important for any investigation of cases of sexual assault and crime locations (Rossmo, 2000).

2.2. Decision Making in Crime Site Selection

Research examining offenders’ decision making processes for target and crime site selection have often focused on burglaries. It has been argued that burglars follow a spatially structured and sequential decision making process when selecting their targets (Brown & Altman, 1981; Cornish & Clarke, 1986, Taylor & Gottfredson, 1986). They will begin by selecting a suitable area and then they will compare potential targets to determine which site is the most suitable (Bernasco, 2006). This latter decision is based on three criteria outlined by Bernasco (2006). The first criterion is the attractiveness of a location in terms of profitability and successfulness of crime commission. For example, potential burglars will look for cues to signal the value of a particular property and more profitable properties are likely to be chosen over lower valued properties. The second criterion is choosing a site that has the lowest risk of detection which can be determined

based on visibility to onlookers, ease of entry, or lighting of the area. The final criterion is travel distance with research showing that most offenders do not travel far from their home to commit their offences (Wiles & Costello, 2000). The decision to burglarize a specific target is based on environmental cues identified and analyzed by the offender prior to the offence (Coupe & Blake, 2006).

An interesting hybrid offence that appears to include both a burglary and a sexual based assault has been identified by Warr (1988), and illustrates the need for research on crime site selection to be expanded to crimes other than burglary, for instance sexually based crimes. Warr (1988) identifies the 'home-intrusion rape' which is described as a hybrid offence of a violent sexual crime and an opportunistic property crime. Warr (1988) argues that the common perception of rape as a crime that occurs in outside locations is false in a sizeable percentage of cases and instead can be an offence committed in a residential location, resembling a burglary. Hazelwood and Warren (1989) found that 50% of the cases of sexual assault they examined did occur in the victim's home, supporting the assertion that sexual assaults occurring in an indoor location are not uncommon occurrences. Factors that make a home attractive to burglars (e.g. ease of access and low visibility to the public) can also attract rapists. Warr (1988) asserts that a rape and burglary occurring at the same location is not an accident but instead a combined offence planned by an offender.

Recently, research has begun to examine crime site selection decision making with sexual offenders (Beauregard, Proulx, Rossmo, Leclerc & Allaire, 2007; Beauregard, Rebocho, & Rossmo, 2010), and has found that location does influence sexual offenders search methods, attack methods, their modus operandi strategies during the offence, and illustrates that sex offenders do follow a rational decision making process in selecting their victims and crime sites. Instead of assuming that sex offenders are always stable in their MO strategies over the course of their sexual assaults, they may in fact be more influenced by the location and context of the crime itself (Beauregard & Leclerc, 2007).

Looking more closely at specific locations of sexual assaults, Beauregard, Proulx, Rossmo, Leclerc and Allaire (2007) choose to examine the hunting process scripts of serial sex offenders by expanding on Rossmo's (2000) prior hunting patterns used to describe methods offenders used to search for and attack their victims, for

instance, the *hunter* who generally searches for victims within his area of residence versus *poachers* who search for victims outside his awareness space. The hunting process used in the study would take into account geographic, cognitive and behavioral factors of sexual aggression and include items such as hunting fields and strategies for contacting victims that were not included in Rossmo's original hunting patterns. Serial sex offenders were deemed a valuable group to examine because they face a variety of situations across crime events and thus have to make numerous choices throughout the victim encounter site, crime attack site, crime site and victim release site. Rossmo (2000) stated that the hunting patterns of offenders would include: (1) the search for a suitable victim, which will influence the encounter site selected, and (2) the method the offender will use to attack the victim which will influence the victim release site (Rossmo, 2000). An offenders modus operandi (methods used to commit the crime) can influence their target selection at each stage (ex. the hunting process will influence the victim encounter site) and the environmental site can also influence the offenders modus operandi.

Beauregard, Proulx, Rossmo, Leclerc and Allaire (2007) identified three hunting process scripts of serial sex offenders: (1) the *coercive* script, which included the *home-intrusion rape* and two *out-door rape tracks*; (2) the *sophisticated* rape script, which included the *direct action rape track*; and (3) the *manipulative* script, which included the *sophisticated rape track* and *family-infiltrator* tracks. The scripts differed based on attack method, hunting method and location of the criminal offence stages. For instance, the outdoor rape tracks were characterized by the use of an outdoor location to encounter the victim while the home-intrusion script was characterized by a victim being encountered in indoor, private locations and released in the same location. The sophisticated rape and direct action rape referred to hunting scripts where the victim was encountered at a site similar to the one they are released at while also being locations that are known by both the offender and victim. Lastly, the family-infiltrator referred to offenders who gained access to their victims by infiltrating families and encountering and attacking the victims in an indoor private location. The scripts were viewed within a rational choice perspective and it was determined that the hunting process and locations chosen were done with by a rational decision making process and that the offender's behaviors were dependent on environmental factors of the criminal event (Beauregard et al., 2007). Similarly, Beauregard, Rossmo and Proulx (2007)

examined the relationship between offending behavior and geography and developed a model of the hunting process which emphasized the fact that not all sex offenders display the same hunting behavior and that rational decision-making is occurring throughout different phases of the crime commission process. Decision making can be influenced by the offenders modus operandi strategies, victim characteristics, situational factors and the environment (Beauregard et al., 2007).

Studies have also shown that target selection is tied to site selection (e.g. Beauregard, Rebocho & Rossmo, 2010, Deslauriers & Beauregard, 2010, Hewitt, Beauregard & Davies, 2012). The first study to examine the geographic decision making of target selection in sex offenders was done by Beauregard, Rebocho and Rossmo (2010). Geographic decision making was found to be consistent across encounter, attack and location sites. Environmental factors have also been shown to be important when it comes to sexual offender's victim selection (Beauregard, Rebocho, & Rossmo, 2010). Beauregard, Rebocho and Rossmo (2010) identified three clusters of hunting style patterns: the *home intruder*, the *tracker* and the *lurker*. The home intruder was more likely to encounter and commit the crime in an inside location versus the trackers who generally searched in specific places for victims, with victims often found on the street. The lurkers were opportunistic and targeted victims through the course of their routine activities.

Deslauriers-Varin and Beauregard (2010) examined target selection scripts in a group of serial sexual offenders and were able to identify three selection scripts based on victims routine activities prior to the offence: (1) Home script where victims were at home prior to the crime; (2) Outdoor script with victims who were outside when approached by the offender and; (3) Social script characterized by offenders who find and approach victims while they are involved in recreational activities. In addition, it was found that victim characteristics also varied between the scripts suggesting that sexual offenders may adapt their target selection depending on the type of victim selected. Lastly, Deslauriers-Varin and Beauregard (2010) examined versatility of crime scripts and found that half of the offenders stayed within one type of script while the other half were versatile and changed scripts depending on victim's routine activities. Prolific offenders were particularly more likely to show versatility in scripts.

Hewitt, Beauregard, and Davies (2012) examined a sample of serial sexual offenders encounter and release sites using GEE analysis and their findings indicated that a number of modus operandi strategies, hunting behaviors, and temporal factors were significant predictors of victim encounter and victim release sites. However, the significance of each factor varied depending on location type (e.g. private site, inside location, and residential land use location). For instance, crimes committed during the day were less likely to occur in residential land use areas compared to those taking place at night, while victim encounters that occurred in residential land use areas were more likely to show structural premeditation by the offender. These findings emphasize the need to examine offender modus operandi strategies along with environmental and temporal factors to gain a better understanding of how and why offenders select crime locations.

Since environmental factors differ from one crime to another it is important to examine whether offender's crime site selections are consistent across crime events. Since it has been argued that serial rapists remain stable in their modus operandi strategies (Sjotedt, Langstrom, Sturidsson, & Grann, 2004) we should determine whether the locations of sexual assaults are also consistent across crime event series. Lundrigan, Czarnomski, and Wilson (2010) analyzed crime patters of serial sex offenders to determine consistency of crime site locations and distances travelled and found that sex offenders were consistent in these choices. More specifically, the offenders were consistent in their choice of environmental characteristics of crime locations such as land type or day of the week (Lundrigan, Czarnomski, & Wilson, 2010). Deslauriers-Varin and Beauregard (2013) found that there was limited diversity in the types of crime sites selected by their sample of serial sexual offenders and were able to identify patterns of site selection. Harbers, Deslauriers-Varin, Beauregard, & Van Der Kemp (2012) also found environmental consistency but noted that certain type of locations showed higher consistency than others, for example residential areas showing more consistency than commercial areas.

2.3. Sexual Burglary

The previously mentioned studies have identified the usefulness of taking a rational choice perspective and focusing on the environmental location of sexual offences when examining offender decision making. An interesting new focus of

criminological research, that illustrates the usefulness of using a rational choice perspective for the examination of a particular crime location, are studies focused on sexual burglary.

Pedneault, Harris and Knight (2012) highlighted a group of offences that combined rape and breaking and entering in a group of sex offender's criminal histories. This is an important subtype of offending to study since it has been shown that sexual offenders who have committed burglaries have early onset criminal careers, more charges and longer criminal careers (Harris et al., 2012). A history of burglary is also more prevalent in samples of serial sex offenders (Hazelwood & Warren, 1989). Since research on burglary suggests that it is a rational offence (Coupe & Blake, 2006; Nee & Taylor, 2000), Pedneault et al. (2012) believed that an examination of sexual burglary would shed light on the rationality of this type of sexual offence.

Explanations of sexual burglary usually fall into three categories (Pedneault, Beauregard, Harris, & Knight, 2015), one that the burglary was the main goal of the offender and the sexual assault was just a 'bonus' to the theft, when the offender unexpectedly found themselves in a situation with a suitable victim, in a home they thought unoccupied, (i.e. an opportunistic rape). The second explanation is that the sexual assault was the main goal of the offence and the theft was the bonus to the offence (Scully & Marolla, 1985). Three, the situational cues that make a location appealing for a burglary also make that same location appealing for a violent offence and the sexual assault is not accidental (Warr, 1988). Recent studies do not support the idea that burglary occurs as a bonus to a sexual assault since targets often feature characteristics that would be deemed counter-indicative for a beneficial burglary (Pedneault, Beauregard, Harris & Knight, 2015).

Pedneault, Beauregard, Harris and Knight (2015), in their study of 224 incidents of burglary, found that these incidents involved a rational organization and that there was no support for the hypothesis that the sexual assaults were opportunistic crimes that were committed in addition to a regular burglary. For example, sexual burglaries were more likely to occur when there was a lack of a capable guardian and victims were attacked when they were at their most vulnerable (i.e. asleep at their homes). There was also a situational context in the offenders modus operandi strategies, such as sexual burglaries being committed in apartments on lower floors which would decrease the

effort required to break into the home and later leave the scene. The sexual burglars would also break into occupied homes and bring a weapon with them to the crime site. Overall, the sexual burglaries were dissimilar from the regular burglaries and therefore it is unlikely that these offenders only planned for the break and enter and not a sexual crime as well.

These sexual burglary offenders are purposely selecting the victim's residence to commit their combined sexual assault and burglary. They are committing their offences at times when it is likely that the home will be occupied, which is a negative strategy for committing burglaries alone, but a beneficial strategy when you want a victim to be present. Beauregard, Proulx, Rossmo, Leclerc, and Allaire (2007) stated that their sample of home intruder sexual offenders chose the 'home-intruder' hunting style because of the advantages of private residences and it is possible that the sexual burglary offenders agree since they are choosing the same type of crime location. These sexual burglary offenders may be similar to home intrusion and bedroom rape offenders because of the similar crime site selection. It would be interesting to determine whether home intruders are also committing property offences such as burglary at the same time as their sexual assaults.

2.4. The Bedroom Rapist

The previously discussed studies identified a specific type of offender that generally chooses to encounter and attack a victim at her own home. Warr (1988) described this offence as the 'home intrusion rape', Beauregard, Proulx, Rossmo, Leclerc and Allaire (2007) identified the 'home-intrusion rape track', Beauregard, Rebocho, and Rossmo, (2010) described the 'home intruder' hunting style, and Pedneault, Beauregard, Harris and Knight (2015) identified sexual burglaries committed at victim's homes. However, few studies have looked specifically at serial sex offenders who commit their crime at the victims' residence thus it is an area of study that requires further exploration.

Warr's (1988) description of 'home-intrusion rape' leads one to question what type of sexual offender would choose to commit their offences at a residence and what type of offending behavior they use when they choose this location to offend. Some research has begun to examine this specific type of offence. For instance, Beauregard,

Proulx, Rossmo, Leclerc, and Allaire (2007) identified a coercive hunting process script which included the 'home-intrusion rape' scripts. This hunting process included offenders who had entered a private, in-door location to commit the sexual assault and who later released their victims in the same location. These offenders hunted through local visibility (generally the victim's residence) and physical violence was used during the commission of the crime. The home-intrusion rape track was used by 11.9% of the sampled offenders. While offences committed at a victim's residence involve some risks such as unfamiliarity of the location, leaving evidence behind, or alerting the victim while breaking into the residence, it was suggested that this type of location had benefits not possible with others, such as the outdoor track. Some benefits of these locations were less risk of being seen by a witness and more time to complete the rape. In this case, the home-intrusion rape track can provide offenders with a situation that minimizes their risk of being apprehended while maximizing their gains, such as completion success. The identification of the above hunting processes demonstrates the importance of environmental variables in the hunting process of sex offenders. Overall, the home-intrusion rape track was dependent on victim selection, planning, greater amount of force and the offenders' use of a weapon (Beauregard et al., 2007).

In Beauregard, Rebocho, and Rossmo's (2010) examination of target selection patterns a *home-intruder* rapist pattern was identified and was congruent with the home-intrusion rape track described above. The home-intruder rapist was characterized by a lack of victim selection, but some showed premeditation, and an attack that occurs in the victims' residence. Their victim was most likely at home, and they mainly use a hunter victim-search method as well as a raptor attack method. This means that the offender sets out to commit his crimes from his home base, searching for a suitable victim within his awareness space and attacking upon encounter. They rarely use a vehicle and almost always broke into the victim's home. These offenders also appear to be similar to the hybrid 'home-intrusion' rape described by Warr (1988). It would be interesting to know whether home intruder rapists are also committing a burglary in the commission of the sexual assault as Warr's sample was. The positive aspects of a victims' residence for commission of a sexual crime (ease of access, lack of witnesses, etc.) would also make that same residence beneficial for a property crime.

Hewitt, Beauregard, and Davies (2012) did not focus specifically on sexual assaults that could be defined as bedroom based but did find a number of factors that

were important predictors of serial sex offences that occurred in private and inside locations which may be relevant to bedroom based assaults. With offences that occurred at a residential site the victim was more likely to be encountered by an offender who used a Troller hunting behavior (opportunistic offender) and structured premeditation and if the victim was not randomly selected than the encounter site was less likely to be in a residential area. Inside locations showed similar victim encounter characteristics as the private sites did. In regards to the victim release site it was more likely to occur in a residential area when the offender used a Stalker hunting style, the victim was pre-pubescent and the offence occurred at night. Inside encounter locations were more likely when the offender used structured premeditation used a stalker or trapper hunting style and when no vehicle was used by the victim.

Two studies have focused exclusively on bedroom rape crime events (Fossi, Clarke & Lawrence, 2005; Fossi & Clarke, 2010) and have highlighted the importance of including the context in the study of sexual assault. Victim behavior and victim characteristics (e.g. victim resistance during an assault) have often been studied to develop rape prevention strategies (Block & Skogan, 1986) but Fossi, Clarke and Lawrence (2005) believed that the sequence of a crime event would also be important to examine. They found that there are distinct groupings of sexual assault sequences that could be differentiated by the location of the offence. In one study Fossi et al. (2005) choose to focus on one specific type of sexual assault location—bedroom rapes. Bedroom rapes were defined as sexual assault which occurred while the victim was in bed and the sequential analyses of these events came from witness statements of assaults which occurred in England. Results indicated that time and individual personality traits influenced the outcome of the assaults as previous studies would have suggested, but that the context of the offence also was an important factor. Overall, bedroom rapes which involved more than one sexual assault at the time of the crime involved an offender who acted out a consensual relationship script and did not use excessive force. The bedroom rapes, where only a single instance of sexual assault occurred, were characterized by an offender who used a more controlling verbal strategy.

Lawrence, Fossi and Clarke (2010) also conducted a study on offenders' verbal strategies during the course of a sexual assault and separated the sexual assault statements based on whether the assault could be defined as a bedroom rape or a non-

bedroom rape. As with their previous studies focused on bedroom attacks there were differences between the sexual assaults that occurred in the bedroom versus those that did not, illustrating that this specific type of crime site location should be further examined. Specific differences noted in bedroom based attacks were that a surprise attack by the offender on the victim was more likely than an offender who used a 'con' approach (i.e. an offender who tried to trick the offender into the encounter). There was also more conversation and verbal intimacy found in the verbal strategies of the offender who committed a bedroom assault, but single bedroom rapes (compared to an offender who committed numerous rapes during one attack) showed conversations that were deemed more aggressive.

2.5. Aim of the Study

Recently, criminological research has turned towards the examination of sexual offender's crime site selection and the influence that location can have on the crime event and offender. These studies have found that the crime location can have an influence on the behavioral characteristics of the offender and identified a type of offender who chooses to commit their offences in inside locations that are familiar to the victim, specifically the victims own homes or bedrooms (e.g. Beauregard, Proulx, Rossmo, Leclerc, & Allaire, 2007; Beauregard, Rebocho & Beauregard, 2010). However, few studies have focused exclusively on those sexual assaults that have been termed 'bedroom rapes.'

The aim of the current study is to analyze modus operandi, temporal factors, and victim characteristics in a sample of 347 sexual assaults committed by 69 serial sex offenders to determine which factors may be more relevant to bedroom based sexual assaults compared to sexual assaults committed at another type of location. This will shed more light on this understudied form of sexual assault. Following a past study by Hewitt, Beauregard, and Davies (2014) which examined serial rapes at victim encounter and victim release sites the current study chose to include those same sites as the dependent variables, in addition to adding crime site of the sexual assault. Pedneault, Beauregard, Harris and Knight (2015)'s research on sexual burglary also helped form the direction of the current study. Since it was determined that sexual burglarist's were rationally choosing a victim's residence to commit their hybrid offence it is important to determine whether the bedroom rapists in the current sample are similar to these

offenders. For instance, are bedroom rapists also committing a burglary during the assault and are they committing their offences at times considered more beneficial to commit a sexual assault and burglary combined (for example are their offences committed more often during the night and weekend when victims are likely to be home). These questions directed the inclusion of burglary and particular temporal variables into the current studies independent variable selection.

Chapter 3.

Methods

3.1. Participants

The data was collected from a sample of sexual offenders who were incarcerated in a Correctional Service of Canada institution in Quebec, Canada between 1995 and 2004. The sample consisted of sexual offenders who were convicted of a sentence of two or more years, and had committed two or more sexual assaults or other sex related crimes (ex. sexual homicide) involving a victim of any age and of any gender, who was a stranger to him (i.e. the offender and victim has no personal relationship prior to the offence). Serial sexual offenders were specifically targeted for the sample as they face a variety of choices during the decision-making process of each crime committed, and the choice to continue in the crime commission process.

In total, 92 offenders matched the criteria and 69 of these individuals, whom together had committed a total of 347 sexual assaults (ranging from 2 to 37 sexual assaults each), were included in the study. Among the 23 excluded participants, only nine participants refused to participate, a remaining 11 participants were unavailable because of discipline problems, mental health state, or transfer to another institution and a further three were excluded after data collection due to missing data.

The mean age of the offenders at the time they began their crime series ranged from 18 to 55 years old, with a mean age of 29.3 (SD = 8.1). Among the participants, 92.5% had a prior criminal record before the onset of their series of sexual crimes and despite their involvement in a series of sexual crimes the majority did participate in other crimes as well. Participants with a prior criminal record had an average of 1.7 (SD = 4.22) charges for sexual non-violent crime, 4.5 (SD = 8.63) charges for sexual violent crimes, 14.4 (15.79) charges for non-sexual non-violent crimes, and 3.5 (SD = 5.86) charges for non-sexual violent crimes. The victims ages ranged from 4 to 68 years old with a mean age of 18.4 (SD = 9.6). The mean age of female victims was 20 years old (SD =9.3) compared to 12.1 years of age for male victims (SD = 7.9). The majority of victims were female (79.8%). Thirty offenders (43.5%) had adult only victims, 17

offenders (24.6%) had child only victims, and 22 offenders (31.9%) had both adult and child victims

3.2. Procedure

The procedure involved two stages: 1) in-depth semi-structured interviews with all offenders to investigate each sexual crime, and 2) content analysis of police investigation reports. An instrument was developed from existing police questionnaires (i.e. ViCLAS in Canada and VICAP in the U.S.) to guide the collection of information from the police investigation reports and the in-depth semi-structured interviews with the offenders. The questionnaire included sections that collected information on pre-crime factors, target selection processes, modus operandi, post-crime factors, and geographic factors. Self-reported information was then compared with official data (i.e. police reports). In the case of a discrepancy on factual information (ex. location of the crime), information from the official police data was used. Participants were promised complete anonymity and confidentiality and a guarantee that their information provided could not be used in any way against them by the Correctional Service of Canada. Interviews were conducted in a private office, isolated from correctional staff and other inmates. The interviews lasted from 2 to 12 hours depending on the number of crimes committed and the participants' verbosity. Due to the sensitive nature of the conversations, permission was not requested to tape record the interviews. No participant was paid for participating.

3.3. Measures

3.3.1. Dependent Variable

The current study used three dependent variables to measure the environmental characteristics of three different crime locations. The dependent variables were crime site location, victim encounter location and victim release location. These locations are important sites for examining environmental and geographical aspects of a serial rape event (Rossmo, 2000). The dependent variables were dichotomized to isolate the category of interest: whether or not each location site occurred at the victim's residence (0 = not victim's residence, 1 = victim's residence). Consistency in offenders' choice of environmental characteristics related to their crime site location has been found in

previous studies (e.g. Lundrigan, Czarnomski & Wilson, 2010) so it was assumed that offenders in the current study remain relatively stable in their environmental selections across their series. In total, 21.3% (n=74) of the crime sites were located at the victim's residence, 21.6% (n=75) of the victim encounter sites were located at the victim's residence, and 23.3% (n=81) of the victim release sites were located at the victim's residence.

3.3.2. Modus Operandi Strategies - Planning Variables

Five modus operandi strategies were included in the current study. The five variables were divided into two categories: planning variables and crime event variables. The two variables which made up the planning variables category were type of victim selection and crime premeditation. These variables were dichotomized and examined across the victim encounter, crime offence location and victim release sites. Type of victim selection was dichotomized into random and non-random selection (0 = non-random; 1 = random). Non-random selection refers to the offender not choosing a victim at random, but rather purposely selecting a victim independent from the situation. Random victim selection refers to the offender choosing the victim at random as a result of opportunity to do so. The *home-intruder* rapist identified by Beauregard, Rebocho, and Rossmo (2010) displayed no victim selection but some premeditation during their crime commission so the current study aimed to determine whether bedroom based sexual assaults would show a similar lack of victim selection.

The second variable, crime premeditation (0 = no premeditation; 1 =structured) refers to the planning and preparation thought-process used by an offender. A sexual crime was deemed premeditated when it had been planned by the offender before the commission of the crime. Premeditation can include planning the location the offence will be committed, looking for specific victim characteristics, and planning strategies to commit the crime, etc. Premeditation was included because it as a modus operandi variable that has been used frequently in the literature concerning target selection and decision-making processes of offenders (ex. Beauregard, Rebocho, & Rossmo, 2010; Hewitt, Beauregard, & Davies, 2012), and may be particularly important for offenders choosing crime site locations that they are unfamiliar with, like a victims' home.

3.3.3. Modus Operandi Strategies- Crime Event Variables

Three variables were included within the crime event modus operandi category. These variables included: method to commit the crime (0 = non-coercive; 1 = coercive); the level of physical force used by the offender to secure the victim's compliance and commit the crime (0 = no or minimum force; 1 = excessive force/ more force than necessary); and whether the offender committed burglary in addition to the sexual assault (0 = no; 1 = yes). These variables were again dichotomized and examined across the victim encounter, crime offence location and victim release sites. Rapes described as following a *home-intrusion pattern* (Beauregard, Proulx, Rossmo, Leclerc & Allaire, 2007) have been shown to involve coercion and force on the part of the offender. Thus, the use of coercion, force and a weapon are important variables to include in the current study to illustrate how bedroom rapists react and interact with their victims in this particular location and will allow for a comparison between the similar rape tracks previously identified in the literature.

The last variable of whether or not the sexual offender committed burglary prior to or after the sexual assault will help to determine whether these bedroom rape events are similar to Warr's (1998) hybrid *home-intrusion rape*, described as a hybrid offence that includes a property crime and a sexual crime. Warr (1988) argued that a rape and burglary occurring at the same location is not an accident but a combined offence planned out by the offender because that location would provide them the opportunity to commit both types of offences. One reason for this is that most rapes occur at night and most burglaries occur during the day (Warr, 1988) so the combination of both at a particular time may be evidence that the offender chose to commit both types of offences.

3.3.4. Temporal Variables

Three temporal variables were included in the current study. The first variable was offence timing (0 = weekday, 1 = weekend) and the second variable was time of the crime (0 = day, 1 = night). These temporal variables are relevant for determining the environmental characteristics of the offence at the victim encounter, crime site and victim release sites. Routine activities theory would suggest that offenders will choose particular temporal times (for example, attacking at night), because this increases the

likelihood of finding an appropriate target. The third temporal variable was the amount of time the offender spent with the victim at the scene (0 = 30 minutes or less; 1 = more than 30 minutes). Based on a past study by Oziel, Goodwill, and Beauregard (2015) a short period of time was categorized as 30 minutes or less and a high period of time was more than 30 minutes spent with the offender. It is generally thought that committing a rape at the victim's home is beneficial because of the lack of witnesses and thus one could hypothesize that offenders may be willing to spend a longer amount of time with the victim at the scene of the crime when in a private location that minimizes the risk of witnesses.

3.3.5. Control Variables

There were two control variables included in the current study, the first variable was the age of the victim which was dichotomized into a victim who was a youth or adult victim (0= age of victim is 0-17 years old; 1 = 18 years old and older)¹. The majority of victims (56.8%) belonged to the youth category (i.e. 17 years of age or younger) and 43.2% belonged to the adult category (i.e. 18 years of age or older). The second variable was the relationship between the victim and the offender (0 = stranger; 1 = offender and victim have seen/talked to each other). The current data consisted of all stranger sexual assaults with the offender and victim having no previous relationship prior to the offence committed; however, it is possible that the victim or the offender may have seen or talked to each other briefly before the crime took place, without the interaction being considered a previous relationship. This situation was taken into account and the variable was dichotomized into either a stranger relationship between the victim and offender or a 'non-stranger' relationship referring to a situation where the offender and victim had seen or talked to each other at some point before the crime occurred. After recoding, 65.1% of the sexual offences within the sample fell into the stranger category and 34.9% fell into the already seen/talked to category. Some past research has found that sexual assaults with non-strangers were more likely to occur at the victim's homes

¹ Originally the age of the victim variable was included as a continuous variable; however, because of the distribution of the variable it was necessary to dichotomize the variable into youth and adult categories. Previous literature finds differences between offenders who have preferences for different age groups (Harris, Smallbone, Dennison & Knight, 2009) so it was decided that by dichotomizing the victims' ages based on previous studies methodology, important differences may be found between the two age groups and comparisons could be made across studies.

(Warr, 1988) so some prior contact between the offender and victim before the offence may also influence the location of the offence. Location can be influenced by the type of relationship between the offender and victim.

Table 3-1. Descriptive Statistics

Variable		N (%)
Victim characteristics		
Age of victim	Youth (0-17)	197 (56.8%)
	Adult (18+)	150 (43.2%)
Victim-Offender Relationship	Non-Stranger	226 (65.1%)
	Stranger	121 (34.9%)
Modus operandi strategies		
Offence Planning		
Crime Premeditation	Non-Structured Premeditation	41 (11.8%)
	Structured Premeditation	306 (88.2%)
Type of victim selection	Non-Random	171 (49.3%)
	Random	176 (50.7%)
Crime Event Variables		
Method to commit crime	Non-coercive	144 (41.5%)
	Coercive	203 (58.5%)
Level of force	No force or minimum force	291 (83.9%)
	Excessive force	56 (16.1%)
Offender committed burglary	No	310 (89.3%)
	Yes	37 (10.7%)
Temporal variables		
Offence Timing	Weekday	281 (81%)
	Weekend	66 (19%)
Time of crime	Day	206 (59.4%)
	Night	141 (40.6%)
Time at crime scene with victim	Less than 30 minutes	255 (73.5%)
	30+ minutes	88 (25.8%)
Dependent variable		
Victim encounter Location	Not victim's residence	272 (78.4%)
	Victim's residence	75 (21.6%)
Crime site Location	Not victim's residence	273 (78.7%)
	Victim's residence	74 (21.3%)
Victim release Location	Not victim's residence	266 (76.7%)
	Victim's residence	81 (23.2%)

3.4. Analytical Strategy

A two-step analytical process was used in the current study. Firstly, bivariate analyses were conducted to determine which variables may be the most significant predictors to use in later multivariate analyses. Examination of the bivariate findings showed significant relationships between the dependent variables and a number of predictors. Secondly, multiple regression analyses were used applying generalized estimating equations (GEE) performed in SPSS.

The current data consists of a series of sexual crimes committed by serial sexual offenders. Each offender committed a minimum of two sexual offences and therefore it is possible that correlations exist between crime events committed by the same offender. The possibility of correlation means it cannot be assumed that independence exists between each observation and thus, the analytic strategy chosen needs to take this into account. Treating observations as though they are independent, which is one assumption of regression, could potentially have negative consequences such as underestimating standard errors or models having inefficient estimators, meaning that there is greater mean square error (Johnston & Stokes, 1997). Generalized estimating equations was chosen as the appropriate method because it an extension of generalized linear models that allows for data that includes correlated responses (Garson, 2013; Liang & Zeger, 1986).

The repeated offences committed by the same offender are incorporated in the GEE model based on a working correlation matrix. The correct correlation structure is often unknown to the researcher and must be estimated. A number of options relating to correlation structure exist, the most common being independent (all cases are assumed to be independent of one another), exchangeable (assumes the correlation between observations is the same across all cases), and unstructured (no assumption is made about the correlations between observations and no pattern is assumed); however, GEEs are generally robust to misspecification of the working correlation matrix and is thus an attractive strategy for correlated data (Letourneau, Levenson, Bandyopadhyay, Armstrong & Sinha, 2010). In the current study, working correlation matrixes were analyzed for victim encounter location, crime site location and victim release locations and the independent structure was found to be the appropriate structure based on comparison of the quasi-likelihood criterion (QIC); the structure with the lowest QIC

value being chosen. The independent structure assumes that all cases within the data set are independent of one another (Liang & Zeger, 1986).

As QIC values can be used to determine which correlation structure offers the best model fit, the QICC values can be used to choose the best subset of predictors to include in GEE models (Garson, 2013). Initially all significant variables identified from the bivariate findings were included in the model but examination of the QICC values suggested that the removal of the offender weapon use and forensic awareness variables created a better model fit. These two variables were not found to be significant during GEE analyses either so the researcher chose to remove them from the final models.

Lastly, due to the binary nature of the dependent variables the binary logistic distribution and logit link function are specified. The researcher also conducted a binary logistic regression analysis to compare with the findings of the GEE analyses to determine whether there were differences between using the different analyses with correlated data².

² GEE models indicated that the independent correlation structure was the best fit for the data. Since the crime events are treated as independent from one another in these models, it is also possible to model the data using logistic regression analyses. Logistic analyses were run originally to determine which variables would be important to run in the GEE analysis, but the results of the logistic regression are only located in Appendices A to C because the GEE analysis was deemed the most appropriate to focus on, for reasons discussed below. The Omnibus test for the logistic regression model coefficients was highly significant for all models and the classification percentages of each model also indicated a good model fit, suggesting that the models were accurately predicting the observed data. However, a comparison of the parameter estimates between the GEE analysis and the logistic regression analysis revealed that there were a number of statistically significant parameters in the logistic regression that were not found to be significant within the GEE models; however, all of the statistically significant estimates from the GEE analyses were found to be significant in the logistic regression models. It is more difficult for variables to test as significant with the GEE technique because it has a more conservative standard of error of the parameter estimates and thus reduces the risk of committing a Type I error. Because of this it was deemed that the more conservative findings of the GEE models would be the focus of the current research.

Chapter 4.

Results

4.1. Crime Site Location

To identify the differences between offenders who offend at the victim's residence versus other crime site locations, bivariate relationships between the crime site and crime offence variables were examined. Table 4-1 shows that there is a significant association between bedroom attack crime sites and 10 variables of interest; 2 victim characteristic variables, 7 modus operandi variables, and 1 temporal variable. Bedroom based crime sites were more likely when the victims were adults and female and also when the offence occurred at night, compared to the day. Further, offenders who choose bedroom based crime site locations were more likely to have premeditated and selected their victims ahead of time and were more likely to use coercion, excessive force and a weapon. Lastly, bedroom rapists were more likely to commit a burglary during the sexual assault and show signs of being forensically aware³.

³ Forensic awareness refers to an offender taking steps and/or adapting the modus operandi strategies they use in an attempt to hide evidence and avoid apprehension (Beauregard & Bouchard, 2010). Past research has found that some offenders do show forensic awareness during their offences particularly when they choose to break and enter into a victim's residence (Beauregard & Bouchard, 2010).

Table 4-1. Bivariate associations between predictors and crime site location (N= 347)

	Victim Residence % (n)	Non-Residence % (n)	X ²
Age of victim			
0-17	9.1 (18)	90.9 (179)	
18+	37.3 (56)	62.7 (94)	.341***
Victim-Offender Relationship			
Stranger	23.9 (54)	16.5 (20)	
Non-Stranger	16.5 (20)	83.5 (101)	-.086
Sex of victim			
Male	8.6 (6)	91.4 (64)	
Female	24.5 (68)	75.5 (209)	.157
Crime Premeditation			
No premeditation	7.3 (3)	23.2 (71)	
Structure Premeditation	23.2 (71)	76.8 (235)	.125*
Type of victim selection			
Non-random victim selection	28.7 (49)	71.3 (122)	
Random victim selection	14.2 (25)	85.8 (151)	-.176**
Method to commit crime			
Non-coercive method	7.6 (11)	92.4 (133)	
Coercive method	31.0 (63)	69.0 (140)	.281***
Level of force			
None or minimum force	19.2 (56)	80.8 (235)	
Excessive force	32.1 (18)	67.9 (38)	.116*
Offender committed burglary			
No burglary committed	15.2 (47)	84.8 (263)	
Burglary committed	73.0 (27)	27.0 (10)	.436***
Offender brought rape kit			
No rape kit	20.0 (63)	80.0 (252)	
Brought rape kit	34.4 (11)	65.6 (21)	.102
Forensic awareness of offender			
No forensic awareness	11.7 (24)	88.3 (182)	
Offender had forensic aware.	35.5 (50)	64.5 (91)	.286***
Weapon Use			
No weapon used	15.7 (39)	84.3 (209)	
Weapon used	35.4 (35)	64.6 (64)	.216***

	Victim Residence % (n)	Non-Residence % (n)	X ²
Offence Timing			
Weekday	22.8 (64)	77.2 (217)	
			-.073
Offence Timing			
Weekday	22.8 (64)	77.2 (217)	
Weekend	15.2 (10)	84.8 (56)	
			-.073
Time of crime			
Day	11.7 (24)	88.3 (182)	
Night	35.5 (50)	64.5 (91)	
			.286***
Time at crime scene with victim			
Less than 30 minutes	21.6 (55)	78.4 (200)	
30 mins+	19.3 (17)	80.7 (71)	
			-.024

*p < 0.05; ** p < 0.01; ***p < 0.001

Next, the independent variables were tested at the multivariate level using GEE analyses. Modus operandi, temporal, and victim characteristics are significant predictors of the location across crime site (see Table 4-2). Two of the control variables were significant predictors of whether or not the crime site location occurred inside the victim's residence. Sexual offences that involved adult victims ($b = 1.757$; $OR = 5.798$; $p < 0.05$) were more likely to take place at the victim's home than with victims under 18 years of age. The relationship between victim and offender was also a significant predictor of where the offence will take place. Sexual crimes with victims and offenders who had some previous contact with each other prior to the offence ($b = 1.378$; $OR = 3.966$; $p < 0.05$) are more likely to occur in a location that is the victim's home than a different location site.

Only one temporal factor, time offender spent at the scene with the victim, proved to be a significant predictor of whether the crime site occurred at the victim's residence. The offender was more likely to spend a shorter amount of time at the scene (i.e. 30 minutes or less) when the attack occurred at the victim's home ($b = -1.210$; $OR = .289$; $p < 0.05$).

In regards to modus operandi strategies three predictors were significant variables. The method to commit the crime was significant with a non-coercive method style ($b = 1.476$; $OR = 4.375$; $p < 0.05$) more likely to be used by an offender when the

crime scene location was not at the victim's home, thus a more coercive method was more likely to be used by bedroom rapist offenders. Premeditation ($b = 1.966$, $OR = 7.145$; $p < 0.05$) was also a significant factor, with bedroom rape crime site locations being more likely to occur with offenders who used structured premeditation. Lastly, crime events where the offender committed burglary prior to or after the sexual assault ($b = 2.327$; $OR = 10.246$; $p < 0.01$) were more likely to occur at a victim's residence.

Table 4-2. Generalized Estimating Equation Model^a Predicting Crime Site Location

	B (SE)	OR
Victim characteristics:		
Age of victim (adult)	1.757 (.712)*	5.798
Victim-Offender Relationship (already seen/talked to)	1.378 (.596)*	3.966
Modus operandi strategies:		
Crime Premeditation (structured)	1.966 (.975)*	7.145
Type of victim selection (random)	.119 (.827)	1.126
Method to commit crime (coercive)	1.476 (.654)*	4.375
Level of force (excessive)	.212 (.830)	1.236
Offender committed burglary (yes)	2.327 (.743)**	10.246
Temporal variables:		
Offence Timing (weekend)	.020 (.623)	1.021
Time of crime (night)	.688 (.862)	1.991
Time at crime scene with victim (30+ mins)	-1.210 (.548)*	.298

The specified working correlation structure is independent ^a
 Note: The reference category for each independent variable is provided in parentheses
 * $p < 0.5$; ** $p < 0.01$

4.2. Victim Encounter Location

Table 4-3 shows the bivariate analysis results for the victim encounter site. There is a significant association between encounter locations occurring at a victim's home and 9 variables; 2 victim characteristic variables, 6 modus operandi variables, and 1 temporal variable. Bedroom based encounter sites were more likely when the victims

were adults and female, and also when the offence occurred at night compared to the day, similar to what was found when the dependent variable was crime site location. Further, offenders who choose victim residence encounter locations were more likely to have premeditated and selected their victims ahead of time and were more likely to use coercion and a weapon. One difference with the encounter location site was that the bedroom based rapists were not more likely to use excessive force when encountering their victims. Lastly, bedroom rapists were more likely to commit a burglary in addition to the sexual assault and show signs of being forensically aware.

Table 4-3. Bivariate associations between predictors and victim encounter location (N=347)

	Victim Residence % (n)	Non-Residence % (n)	X ²
Age of victim			
0-17	11.7 (23)	88.3 (174)	.277***
18+	34.7 (52)	65.3 (98)	
Victim-Offender Relationship			
Stranger	22.6 (51)	77.4 (175)	-.032
Non-Stranger	19.8 (24)	80.2 (97)	
Sex of victim			
Male	12.9 (9)	87.1 (61)	.107
Female	23.8 (9)	76.2 (2110)	
Crime Premeditation			
No premeditation	9.8 (4)	90.2 (37)	.155*
Structure Premeditation	23.2 (71)	76.8 (235)	
Type of victim selection			
Non-random victim selection	28.1 (48)	71.9 (123)	-.176**
Random victim selection	15.3 (27)	84.7 (149)	
Method to commit crime			
Non-coercive method	9.7 (14)	90.3 (130)	.243***
Coercive method	30.0 (61)	70.0 (142)	
Level of force			
None or minimum force	20.6 (60)	79.4 (231)	.055
Excessive force	26.8 (15)	73.2 (41)	
Offender committed burglary			
No burglary committed	16.5 (51)	83.5 (259)	.363***
Burglary committed	64.9 (24)	35.1 (13)	
Offender brought rape kit			
No rape kit	21.3 (67)	78.7 (248)	.026
Brought rape kit	25.0 (8)	75.0 (24)	
Forensic awareness of offender			
No forensic awareness	13.1 (27)	86.9 (179)	.250***
Offender had forensic aware.	34.0 (27)	66.0 (93)	
Weapon Use			
No weapon used	17.3 (43)	82.7 (205)	.164**
Weapon used	32.3 (32)	67.7 (67)	

	Victim Residence % (n)	Non-Residence % (n)	X ²
Offence Timing			
Weekday	20.6 (58)	79.4 (223)	.049
Weekend	25.8 (17)	74.2 (49)	
Time of crime			
Day	14.1 (29)	85.9 (177)	.221***
Night	32.6 (46)	67.4 (95)	
Time at crime scene with victim			
Less than 30 minutes	23.9 (61)	76.1 (194)	-.085
30 mins+	15.9 (14)	84.1 (74)	

*p < 0.05; ** p < 0.01; ***p < 0.001

When victim encounter location (dichotomized to isolate the category of interest i.e. whether the encounter location was at the victim's home or not) was analyzed using GEE analyses, predictors that were significant in predicting crime site location were also significant in predicting whether the encounter location was located at the victim's home (see Table 4-4). Sexual offences that involved adult victims ($b = 1.532$; $OR = 4.626$; $p < 0.05$) were again more likely to have an encounter location at the victim's home than at another type of location. The relationship between victim and offender is also a significant predictor of where the offence will take place. Sexual crimes with victims and offenders who had some previous contact with each other prior to the offence ($b = 1.626$; $OR = 5.085$; $p < 0.01$) are more likely when the victim is encountered at their home, compared to when the victim and offender had no contact with each other previously.

Similar to crime site location results only one temporal factor, time offender spent at the scene with the victim, again proved to be a significant predictor of whether the encounter location was the victim's residence. The offender was more likely to spend a shorter amount of time at the scene (i.e. 30 minutes or less) when the encounter began at the victim's home ($b = -1.715$; $OR = .180$; $p < 0.01$).

In regards to modus operandi strategies two predictors were significant predictors. The method to commit the crime was significant with a non-coercive method style ($b = 1.301$; $OR = 3.672$; $p < 0.05$) more likely to be used by an offender when the

crime encounter location was not at the victim’s home. Secondly, premeditation was significant ($b = 1.494$; $OR = 4.456$; $p = 0.05$) with a structured premeditation more likely to be used by an offender when the crime encounter location was the victims home. Thirdly, crime events where the offender committed burglary during the sexual assault crime event ($b = 2.111$; $OR = 8.256$; $p < 0.01$) were more likely to be sexual crimes that began at the victim’s residence compared to a different location.

Table 4-4. Generalized Estimating Equation Model^a Predicting Victim Encounter Location

	B (SE)	OR
Victim characteristics:		
Age of victim (adult)	1.532 (.714)*	4.626
Victim-Offender Relationship (already seen/talked to)	1.626 (.590)**	5.085
Modus operandi strategies:		
Crime Premeditation (structured)	1.494 (.762) ^b	4.456
Type of victim selection (random)	.215 (.800)	1.240
Method to commit crime (coercive)	1.301 (.601)*	3.672
Level of force (excessive)	-.212 (.840)	.809
Offender committed burglary (yes)	2.111 (.765)**	8.256
Temporal variables:		
Offence Timing (weekend)	.919 (.659)	2.507
Time of crime (night)	.652 (.844)	1.920
Time at crime scene with victim (30+ mins)	-1.715 (.633)**	.180

The specified working correlation structure is independent ^a
 Note: The reference category for each independent variable is provided in parentheses
 * $p < 0.5$; ** $p < 0.01$; ^b $p = 0.5$

4.3. Victim Release Location

Lastly, victim release location was dichotomized into whether the victim was released in their own home or at another location. Bivariate analyses show that 9 variables are significant, the same results as was found for the victim encounter site (see

Table 4-5). Again, victims were more likely to be released in their residence when the victims were adults and female, and when the offence occurred at night. Offenders were more likely to have premeditated and selected their victims ahead of time and use coercion and a weapon. Bedroom based victim release sites were more likely to involve offenders who would also commit a burglary during the sexual assault and show signs of being forensically aware.

Table 4-5. Bivariate associations between predictors and victim release location (N=347)

	Victim Residence % (n)	Non-Residence % (n)	X ²
Age of victim			
0-17	13.7 (27)	86.3 (170)	
18+	36.0 (27)	64.0 (96)	.261***
Victim-Offender Relationship			
Stranger	24.8 (56)	75.2 (170)	
Non-Stranger	20.7 (25)	79.3 (96)	-.046
Sex of victim			
Male	14.3 (10)	85.7 (60)	
Female	25.6 (71)	74.4 (206)	.108
Crime Premeditation			
No premeditation	9.8 (4)	90.2 (37)	
Structure Premeditation	25.2 (77)	74.8 (229)	.118*
Type of victim selection			
Non-random victim selection	31.0 (53)	69.0 (118)	
Random victim selection	15.9 (28)	84.1 (148)	-.178**
Method to commit crime			
Non-coercive method	11.8 (17)	88.2 (127)	
Coercive method	31.5 (64)	68.5 (139)	.230***
Level of force			
None or minimum force	21.6 (63)	78.4 (228)	
Excessive force	32.1 (18)	67.9 (38)	.091
Offender committed burglary			
No burglary committed	18.1 (56)	81.9 (254)	
Burglary committed	67.6 (25)	32.4 (12)	.361***
Offender brought rape kit			
No rape kit	22.2 (70)	77.8 (245)	
Brought rape kit	34.4 (11)	65.6 (21)	.083
Forensic awareness of offender			
No forensic awareness	14.6 (30)	85.4 (176)	
Offender had forensic aware.	36.2 (51)	63.8 (90)	.251***
Weapon Use			
No weapon used	19.4 (48)	80.6 (200)	
Weapon used	33.3 (33)	66.7 (66)	.149**

	Victim Residence % (n)	Non-Residence % (n)	X ²
Offence Timing			
Weekday	23.5 (66)	76.5 (215)	
Weekend	22.7 (66)	77.3 (51)	-.007
Time of crime			
Day	15.0 (31)	85.0 (175)	
Night	35.5 (50)	64.5 (91)	.237***
Time at crime scene with victim			
Less than 30 minutes	23.9 (61)	76.1 (194)	
30 mins+	19.3 (17)	80.7 (71)	-.048

*p < 0.05; ** p < 0.01; ***p < 0.001

Multivariate analyses show that sexual offences that involved adult victims (1.223; OR = 3.398; p < 0.05) were more likely to have a victim release location at the victim's home than at another type of encounter location (see Table 4-6). The relationship between victim and offenders was also a significant predictor of where the release location would be. Sexual crimes with victims and offenders who have had some previous contact with each other prior to the offence (b = 1.045; OR = 2.844; p < 0.05) are more likely to have release sites at the victim's home than when the victim and offender have had no contact with each other previously (See Table 4).

As with crime site and encounter location only one temporal factor, time offender spent at the scene with the victim, proved to be a significant predictor of whether the encounter location was the victim's residence. The offender was more likely to spend a shorter amount of time at the scene (i.e. 30 minutes or less) when the victim was released at the victim's home (b = -1.136; OR = .321; p = 0.05).

In regards to modus operandi strategies the method to commit the crime was no longer a significant predictor of victim release site. However, whether the offender committed burglary in addition to the sexual assault (b = 1.960; OR = 7.097; p < 0.01) was still significant, with offenders who committed burglary being more likely release their victims at the victim's residence compared to a different location. An offender using structured premeditation was also more likely when the victim release site was at the victim's bedrooms and was statistically significant (b = 1.489' OR = 3.398; p < 0.05).

Table 4-6. Generalized Estimating Equation Model^a Predicting Victim Release Location

	B (SE)	OR
Victim characteristics:		
Age of victim (adult)	1.223 (.610)*	3.398
Victim-Offender Relationship (already seen/talked to)	1.045 (.519)*	2.844
Modus operandi strategies:		
Crime Premeditation (structured)	1.489 (.7445)*	4.431
Type of victim selection (random)	-.005 (.743)	.995
Method to commit crime (coercive)	1.086 (.571)	2.962
Level of force (excessive)	.138 (.760)	1.148
Offender committed burglary (yes)	1.960 (.783)**	7.097
Temporal variables:		
Offence Timing (weekend)	.529 (.598)	1.697
Time of crime (night)	.551 (.786)	1.734
Time at crime scene with victim (30+ mins)	-1.136 (.583) ^b	.321

The specified working correlation structure is independent ^a

Note: The reference category for each independent variable is provided in parentheses

*p < 0.5; ** p < 0.01; ^b p = 0.5

Chapter 5.

Discussion

The current study examined 'bedroom rapes,' referring to sexual assaults which occurred at a victim's residence, along with temporal factors and offender modus operandi strategies to gain a better understanding of these types of sexual assaults. Based on past research that has found significant differences between the crime characteristics of sexual assaults that occurred across various locations (e.g. Proulx, Rossmo, Leclerc, & Allaire, 2007), it was considered important to provide a greater understanding of these types of sexual assaults. Findings from the current study indicated that a number of temporal factors, victim characteristics and modus operandi variables were important predictors of bedroom rapes across victim encounter, crime site, and victim release sites.

The victim characteristics, temporal factors and modus operandi factors that were significant for bedroom rape attacks were generally significant across the three crime locations, except for method of crime commission which was not a significant variable for the victim release site. Victims of bedroom rape attacks were more likely to be encountered and attacked at their residence when adult victims were the target, compared to younger victims. This finding is consistent with a routine activities approach in two ways. One, adults spend a large portion of their time at home which makes their home an opportune place to encounter a victim. Bernasco and Nieuwbeerta (2005) noted that offenders are likely to choose an area to commit their crimes if they deem that location to be a suitable place to find appropriate targets. Since it is highly likely that an adult victim would be found at their home it is not surprising that this location may be viewed as a beneficial site to encounter desired targets. This current finding also coincides with similar results found by Hewitt, Beauregard, and Davies (2012) where adults were more likely to be encountered in an indoor location, within their sample of serial sex offenders. Two, because adults are more likely to be home alone, without a capable guardian, than children are. Cohen and Felson (1979) theorized that the contact of a victim and offender in the absence of a capable guardian may increase the likelihood of crime occurring. Children at their own homes will likely have some type of guardian with them which makes the successful completion of an offence less likely. A

female who lives alone may be deemed a very suitable target by a sexual offender because there is little chance of anyone interrupting the attack. The lack of guardianship and potential witnesses would explain why the victim's home is also used as an encounter and release site with adult victims.

The second significant victim characteristic found across encounter site, crime site and victim release site was that the offender and victim were more likely to have had some contact with each other before the crime occurred, when the offence was a bedroom based sexual assault. This result is consistent with McDermott's (1979) finding that non-stranger victims were raped more than twice as often in their home compared to outside, public locations. Warr (1988) also found that non-stranger rapes that fit into the *home-intrusion rape* type were more likely to occur at the victim's home. These studies validate that all rapes do not occur in public locations and that the crime location can be related to the type of relationship the victim and offender have. Though the victims of bedroom based assaults were more likely to have had some contact with the offender prior to the offence it was not found that victims were selected for beforehand.

Even though victim selection was not found to be a significant factor, results do indicate that bedroom rapists use some form of structured premeditation in planning these offences. The victim was more likely to be encountered and released at their homes if the crime is premeditated by the offender. The location of the crime was also more likely to be at the victim's home when the crime was structurally premeditated. These findings would suggest that the offender is purposely hunting for victims in this type of location because they know they can find potential victims there. Hewitt, Beauregard, and Davies (2012) found that victims of sexual assault were more likely to be encountered in private or indoor locations when the crime was structurally premeditated and the *home-intrusion rape track* proposed by Beauregard, Proulx, Rossmo, Leclerc and Allaire (2007), identified an offending track that involved an offender who would enter a private, inside location that is unfamiliar to them (e.g. a victim's residence). Because this location is private and unfamiliar to the offender, it requires more premeditation from the offender to ensure a successful attack. This is also corroborated by Beauregard, Rossmo, and Proulx (2007) who found that 13% of their sample of serial sex offenders hunted for their victims in private places and they preferred the victim's home as the crime location because it was the more thrilling for them.

In terms of the modus operandi crime event variables, victims are more likely to be encountered and assaulted in their residence when the offender utilizes a coercive method to commit the crime. The use of coercion was not a significant factor for the victim release site. Sexual coercion involves the use of threats, force or another oppressive strategy to gain victim compliance (Balemba & Beauregard, 2012). This finding was expected as Beauregard, Proulx, Rossmo, Leclerc and Allaire (2007) found similar results in their examination of the *home-intrusion rape* track. The home intruder committed their sexual assaults at an indoor or private location and used coercion and force to commit their offence. The current examination of bedroom rape based attacks suggests that these offenders are more likely to use coercion in their encounters with victims and during the commission of their attack however, use of force was not found to be a significant modus operandi variable in the current study. Since the offender already has the victim at the desired crime site perhaps there is no need for them to employ a more non-coercive method to try to gain the victims trust.

Bedroom based sexual assault encounter sites, crime sites and release sites were also more likely to involve offenders who had committed a burglary prior to or after the sexual assault. Research on sexual burglaries is still new and as mentioned previously, explanations of sexual burglary usually fall into three categories (Pedneault, Beauregard, Harris, & Knight, 2015). Pedneault et al. (2015) did not find support for the explanation that sexual burglaries were opportunistic, 'bonuses' to the other crime type, but instead offenders have planned to commit both types of offences at the victim's home. The reasoning for this was because sexual burglaries appeared to be significantly different from non-sexual burglaries (e.g. sexual burglaries are more likely to occur in apartments and occupied residences at times when it is more likely for a victim to be home). The victim's residence generates criminal opportunities for the offender to commit both a sexual assault and a burglary offence and thus these locations would also be a beneficial choice for offenders who want to commit both types of offences. It can be hypothesized that offenders are choosing the victims home as a suitable location because of a rational decision making process determining that these locations provide the most benefits and opportunity for the commission of both types of offences.

Lastly, a victim was more likely to be encountered, assaulted and released in their home when the offender spent a shorter amount of time at the crime scene. The time spent with victim variable was dichotomized into a 'short' amount of time spent with

the victim of 30 minutes or less and a 'long' amount of time of more than thirty minutes (dichotomized based on past research by Oziel, Goodwill, and Beauregard, 2015). Bedroom rapists were more likely to spend 30 minutes or less with their victims. Committing a sexual assault at the victim's home can be beneficial because of the reduced risk of potential witnesses since you are removed from the public sphere. Because of this it was hypothesized that an offender would spend a longer amount of time with the victim at the crime scene; however, results indicate otherwise. Perhaps the unfamiliarity and lack of predictability of the location sways the offender towards staying a shorter amount of time even though the location is hidden from public view.

In summary, victims are more likely to be encountered and assaulted in their own residences when they are adults, have had some contact with the offender prior to the offence, and when the offender uses coercion and structured premeditative planning. In addition, these offences are likely to also involve a burglary in addition to the sexual assault and last less than 30 minutes. These same features were also more likely when the victim release location was the victim's residence, except for the use of coercion by the offender. Many of these findings find support from a routine activities perspective and a rational choice approach.

Chapter 6.

Conclusion

The current study aimed to add to the existing knowledge of bedroom based sexual assaults and the offending behavior used at these locations. It was found that modus operandi, temporal factors and victim characteristics were significant in predicting whether the victim encounter, crime site, and victim release site were located at the victim's residence or not. The results coincided with previous studies that had identified a subset of offenders who hunted and attacked their victims indoors in private residences (Beauregard, Rebocho, & Rossmo's, 2010; Hewitt, Beauregard, & Davies, 2012).

Even though a victim's home as a crime location comes with certain risks, for example being a space that is unfamiliar to the offender or the increased difficulty in knowing whether more than one individual is home, these bedroom rapists must view the location as being beneficial in a way that outweighs the risks. Some major benefits of the location would be the lack of visibility for potential witnesses, no need to bring the victim to the crime site, and a high likelihood that a victim would be available at the location. It appears that offenders are aware of the potential risks and rewards of this location and change their offending behavior and choices accordingly.

The current study is unique in that it focuses on serial rape crime events and not specifically on the offender. This allows for situation crime prevention measures to be put forth. These measures can be applied to a variety of crime series committed by different 'bedroom rape' offenders. Situational crime prevention comprises three measures: (1) directed at specific forms of crime; (2) involves the manipulation of an environment in a systematic way; and (3) aims to reduce opportunities for crime while also increasing the risks perceived by offenders (Clarke, 1983). Some common measures include neighbourhood watch, target hardening or defensible space architecture (Clarke, 1983). Defensible space architecture creates housing designs that allow residents to more easily engage in surveillance over the public spaces around their residences. Situational crime prevention emphasizes the role of the situation and opportunity of crime occurrence instead of focusing on offenders and their personal

reasons for engaging in criminal behavior. These crime prevention measures have been used more often for non-violent, property crimes (e.g. burglary, vandalism), however extending this research to sexual crimes may be beneficial as well.

There are a number of crime prevention measures that could be implemented to potentially reduce bedroom based rapes. On the outside of a potential victim's home it is recommended that doors and windows be kept locked, camera and alarm systems be placed at entryways, and strict doorway access into apartment buildings be kept, for example by having all individuals scan access cards or key fobs to gain access to the building. Alarms and cameras will act as 'guardians' for individuals that live alone which may decrease the likelihood of an offender choosing to offend at the location. Keeping blinds closed at night so that offenders are not able to hunt for potential victims from outside the home and hinder their ability to see objects of value would also be highly recommended. Inside the home, panic buttons or easy access to emergency calling on cell phones could help in situations where an offender may have already gained entry. Other measures could be introduced in outside areas surrounding residences to make it more difficult for potential offenders to break into a home. For instance, keeping residences well-lit and having cameras outside apartment or condo buildings. Lastly, increased police patrols or neighbourhood watch programs in residential areas could impeded potential offenders. Overall, it is important that we be aware of environmental cues that may make potential victims more susceptible to being victimized. Increasing the risks for offenders to target and attack victims and their homes are possible when these environmental structures are modified.

There are some critiques of situational crime prevention strategies. One critique is that increasing the risks for offenders in one area will simply displace their offending. This can be geographical displacement (commit their offence in another location), temporal displacement (offend at a deferent time), tactical displacement (an offender will change his modus operandi strategies), target displacement (offend against another target), or activity-related displacement (choose a different type of crime) (Clarke, 1983). Displacement is problematic in the sense that crimes may be pushed to other areas but it can also make it more difficult for police to link serial crimes. However, studies on displacement suggest that it may not be as large of a concern as some believed. Cornish and Clarke (1987) note that in some cases of suspected displacement it is not that offenders are turning to other forms of offending but instead they may turn towards

legitimate opportunities to meet their goals. A potential rapist may try to seduce a woman at a bar into having sex with him rather than taking the risk of breaking into homes that are under heavily surveillance, for example. Even though displacement may not be occurring as often as assumed it is still important to be aware of but, it should not be used as a reason to stop situational crime prevention measures completely. The greatest benefit of situational crime prevention measures would be for an offender to desist from offending altogether and Cornish and Clarke (1987) theorize that this is a possible outcome of situational prevention. Researchers need to continue investigating the usefulness of situational crime prevention strategies so it can be modified into its most useful form.

This research is not without its limitations. The small sample size restricted the kinds of statistical analyses able to be performed and due to the distribution of the sample, some variables with theoretical relevance could not be included in the study. It is unclear how the exclusion of these variables may have affected the results. In addition, crimes analyzed in this study were all committed by incarcerated offenders only; therefore, it is possible that the results may not be generalizable to offenders who have not been apprehended. Lastly, misreporting of modus operandi strategies and other crime characteristics by offenders, whether intentionally or due to misconception of memory, is possible with self-reported events of crimes, although the original interviewer was able to look to official reports if obvious discrepancies in self-reporting occurred. Despite these limitations, the current findings are theoretically and practically relevant for researchers and potentially law enforcement officials as well.

Future research should attempt to examine whether other situational, modus operandi or victim characteristics may be more likely at bedroom based rapes compared to other locations. For instance, the type of victim residence (apartment, house, etc) or the number of residents in the home. A qualitative analysis of offender's reasoning's for why they choose particular crime site locations would also provide a greater understanding of their decision-making process. It would also be beneficial if future studies examined whether particular crime prevention strategies would have a positive effect on reducing the occurrence of these type of sexual assaults.

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Appendix A.

Logistic Regression Analyses of Crime Site

Table A1. Logistic Regression Model Predicting Crime Site Location (n=69)

	B (SE)	OR
Victim characteristics:		
Age of victim (adult)	-4.201 (.847)	.015**
Victim-Offender Relationship (already seen/talked to)	-6.499 (1.449)	.002**
Sex of Victim (Female)	-1.117 (1.323)	.327
Modus operandi strategies:		
Crime Premeditation (structured)	-22.287 (4668.70)	.000
Type of victim selection (random)	-1.764 (.706)	.171*
Method to commit crime (coercive)	-3.683 (1.040)	.025**
Level of force (excessive)	1.092 (.687)	2.980
Offender committed burglary (yes)	-4.046 (.870)	.017**
Offender brought rape kit (yes)	-1.790 (.970)	.167
Forensic awareness of offender (yes)	-3.191 (.961)	.041*
Weapon Use (yes)	.669 (.693)	1.951
Temporal variables:		
Offence Timing (weekend)	.088 (.766)	1.092
Time of crime (night)	-1.915 (.647)	.147*
Time at crime scene with victim (30+ mins)	1.961 (.838)	7.106*

Note: The reference category for each independent variable is provided in parentheses

* $p < 0.05$; ** $p < 0.01$

Appendix B.

Logistic Regression Analyses of Victim Encounter Site

Table B1. Logistic Regression Model Predicting Victim Encounter Location (n=69)

	B (SE)	OR
Victim characteristics:		
Age of victim (adult)	-3.590 (.738)	0.28**
Victim-Offender Relationship (already seen/talked to)	-6.100 (1.310)	.002**
Sex of Victim (Female)	1.275 (.814)	3.580
Modus operandi strategies:		
Crime Premeditation (structured)	-4.011 (1.317)	.018*
Type of victim selection (random)	-1.176 (.551)	.309*
Method to commit crime (coercive)	-2.370 (.642)	.093**
Level of force (excessive)	1.582 (.642)	4.866*
Offender committed burglary (yes)	-3.334 (.738)	.036**
Offender brought rape kit (yes)	-.700 (.787)	.496
Forensic awareness of offender (yes)	-3.561 (.977)	.028**
Weapon Use (yes)	.258 (.593)	1.295
Temporal variables:		
Offence Timing (weekend)	-2.112 (.613)	.121**
Time of crime (night)	-1.508 (.533)	.221*
Time at crime scene with victim (30+ mins)	2.716 (.791)	15.123**

Note: The reference category for each independent variable is provided in parentheses
 * $p < 0.05$; ** $p < 0.01$

Appendix C.

Logistic Regression Analyses of Victim Release Site

Table C1. Logistic Regression Model Predicting Victim Release Location (n=69)

	B (SE)	OR
Victim characteristics:		
Age of victim (adult)	-3.489 (.754)	.031**
Victim-Offender Relationship (already seen/talked to)	-6.555 (1.473)	.001**
Sex of Victim (Female)	-1.916 (1.546)	.147
Modus operandi strategies:		
Crime Premeditation (structured)	-22.033 (4875.97)	.000
Type of victim selection (random)	-1.727 (.686)	.178*
Method to commit crime (coercive)	-3.509 (.979)	.030**
Level of force (excessive)	1.156 (.695)	3.178
Offender committed burglary (yes)	-3.741 (.855)	.024**
Offender brought rape kit (yes)	-2.239 (.983)	.107*
Forensic awareness of offender (yes)	-3.965 (1.029)	.019**
Weapon Use (yes)	1.177 (.743)	3.245
Temporal variables:		
Offence Timing (weekend)	-.469 (.756)	.625
Time of crime (night)	-2.044 (.627)	.130*
Time at crime scene with victim (30+ mins)	2.067 (.844)	7.901*

Note: The reference category for each independent variable is provided in parentheses
 *p < 0.05; ** p < 0.01