The backcloth of sexual assault: The consequences of contextual factors on sex crime outcomes

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Abstract

Sexual assault is a crime that requires further exploration to determine exactly what takes place during incidents with differing results. Why do some sexual assaults end in rape completion, others in injury to the victim, and still others in either both or neither of these outcomes? Why are some crimes more violent or sexually invasive than others? The current collection of studies attempts to answer these questions through analyses that delve increasingly deeper into the event of sexual assault.

A secondary analysis of correctional case files and interviews conducted with 613 sex offenders was performed using sequential logistic regression methods to determine the factors most relevant to different victim resistance patterns, violent crime outcomes, sexually intrusive crime outcomes, and combinations of particularly undesirable, tangible crime outcomes (specifically, rape completion and victim injury). Variables related to the offender's lifestyle, disinhibitors prior to the crime, the vulnerability of the victim, situational impediments to the crime, offender modus operandi (MO), and the level of victim resistance were examined as they relate to each dependent variable. The final study goes further to provide the crime sequences most likely to lead to various outcome combinations. Implications in terms of sex crime prevention – particularly secondary prevention, or harm reduction – are discussed, with relevant suggestions for policy and education directed towards potential victims, potential offenders, and convicted sex offenders.

Keywords: Sexual assault; crime outcomes; victim injury; rape completion; victim resistance; secondary crime prevention

For Barry

and our future together

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Now I am prepared to take the next step on my scholastic journey, confident that I have learned enough from these and the other amazing professors at Simon Fraser University to succeed within the realm of academia. Thank you, SFU. Don't be a stranger.

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Chapter 1.

Introduction

Historically, criminology has been devoted to the study of criminal offenders (Cullen, Wright, & Blevins, 2006). Thus, the motivations of the offender are at the forefront of explaining criminal behaviour and preventing it from occurring. While this is indeed an important aspect of crime to consider, this focus does not capture all that is relevant to the phenomenon of crime. If all that was necessary for a crime to occur was a motivated offender, then those who are inspired to offend should, theoretically, be committing crimes continuously throughout their lives. However, even the most motivated offenders spend most of their time not offending, and motivations can often change during the course of an offense. Thus, there must be more to an offense than simply the presence of a person who is willing to commit the crime.

The study of crime as criminal events (Meier, Kennedy, & Sacco, 2001) allows the inclusion of more relevant factors than merely the presence of an offender. While offender-specific factors and behaviours are important to include, other aspects of the situation surrounding a crime must be accounted for to truly examine criminal behaviour. With a particular focus on sexual assaults, characteristics of the victim can determine whether a crime occurs as well as how the crime progresses and the final outcome (Block, 1981; Luckenbill, 1977; Tedeschi & Felson, 1994). Elements of the surrounding environment, such as when the crime takes place or the existing relationship between the offender and the victim, can either serve to promote or impede criminal activity (LaFree & Birkbeck, 1991). Also, the effects of the offender's lifestyle and disinhibiting influences can affect the occurrence and progression of a crime. The more elements of the criminal event that are included in any crime analysis, the greater the degree of confidence in the findings can be, particularly with respect to direct applicability to policy. However, while the inclusion of these crime elements is important, they must also be added to any analysis in a systematic way that improves the overall understanding of any criminal event.

1.1. Offense Chains

There are a variety of ways to organize the vast array of different offenders and offending patterns. While organizing by crime type seems the most obvious, this solution amalgamates the majority of sexual offenses within the same category, despite the vast differences within such a conglomerate. From an offender-specific focus arises the development of typologies, which are meant to group offender types based on patterns of behaviour (for a review, see Robertiello & Terry, 2007). However, such "offender-centric" thinking largely ignores *situational* factors.

The organization of offense types based on situational factors led to the development of offense process models. This notion derives from relapse prevention models (Marlatt & Gordon, 1980; Pithers, 1990; Pithers, Kashima, Cumming, Beal, & Buell, 1988; Pithers, Marques, Gibat, & Marlatt, 1983), which were originally designed to prevent post-treatment relapse by addicts (Marlatt & Gordon, 1980), but have since been applied to sex offending (Pithers, 1990; Pithers et al., 1988; Pithers et al., 1983). The most distinctive concept brought forth by relapse prevention models was the idea that offending (or relapse) is not an impulsive act but, rather, the result of multiple individual steps (Marlatt & Gordon, 1980). These steps include situational components, such as high-risk situations, as well as cognitive evaluations and decision-making, such as the problem of immediate gratification, in which an offender selectively focuses on the positive, short-term consequences of a decision and ignores the longer term, negative behavioural consequences. Although Pithers' model as an application specific to sex offenders has received criticism (see, for example, Ward, 2000; Ward & Hudson, 1996), Pithers and Gray (1996) note the widespread use of relapse prevention models within sex offender treatment, estimating the inclusion of such models in 90% of sex offender treatment programs in North America. Furthermore, the inherent notions of relapse prevention – and especially the idea of temporal events and cognitions resulting in relapse – have remained a fixture in the development of future sexual offense process models.

These sexual offense process models, also referred to as offense chains, provide event descriptions of an offense, including elements of cognitive, behavioural, motivational, and contextual factors important in the decision-making of the offender (Polaschek, Hudson, Ward, & Siegert, 2001; Ward, Louden, Hudson, & Marshall, 1995).

Similar to relapse prevention models (Pithers et al., 1988; Pithers et al., 1983), they serve as valuable tools because they indicate temporal sequences that take place during a criminal event and deal with the proximal causes of offending patterns (Polaschek et al., 2001). Furthermore, the examination of the events leading up to the offense, stages within the offense itself, as well as final outcome factors sets out a chronology of offending processes that is very relevant to the current studies.

One of the most notable elements of offense process models is their ability to accommodate shifting offender goals and crime-switching. An offender's goals may change throughout the offense and, in fact, offense chains do not assume that an offender's goal is to commit an offense from the outset (Polaschek et al., 2001). The shifting goals that take place – due to situational and contextual factors combining with the inherent instability in the offender's mind – are reflected in the offense chain's dynamic nature. Furthermore, offense chains imply that an individual offender may follow one process of steps for the commission of one offense, but take a different route during their next offense; offender decision-making is situation dependent. This flexibility in offender patterns indicates the importance of circumstantial factors that may have a significant impact on the progression of the offense.

Offense process models often express the intrinsic importance of the inclusion of victim behaviours and victim-offender interactions within any model of a sexual offense (Polaschek et al., 2001; Ward et al., 1995). Whether examining a crime against an adult (Polaschek et al., 2001) or a child (Ward et al., 1995), victim-offender dynamics have been shown to significantly alter the progression of the offense as well as the offender's level of physical violence. Thus, offense chains are designed to include: relevant pre-crime factors that lead up to the criminal event; victim-offender interactions that take place during the commission of the crime; and crime outcomes. Additionally, these models allow for offender decision-making to affect each stage and for offender behaviour to change and adapt within an offense and between different offenses. This framework promotes the examination of all relevant situational factors and is the underlying theoretical foundation of the current studies.

There are, however, a few elements that are not fully represented within this criminological view alone and, thus, require a complementary perspective to ensure

complete compatibility with the focus of the present analyses. For example, although this has begun to be addressed within recent literature (Proulx, Beauregard, Lussier, & Leclerc, 2014), offense chain models often do not provide sufficient attention to *modus operandi* (MO) characteristics and very rarely is the connection made between MO and crime outcome. In fact, the primary focus of such models is often the factors that precede the commission of the crime, rather than the relevant within-crime elements that may affect the final outcome as much, if not more, than pre-crime offender and situational factors. The criminal event perspective fills these small, but important, gaps that exist in the offense chain model of crime.

1.2. The Criminal Event Perspective

The criminal event perspective (CEP; Miethe & Meier, 1994; Sacco & Kennedy, 1994, 1998, 2002) emerged in response to a deficit of models able to account simultaneously and dynamically for offenders and victims as well as for the physical and psychological contexts within which they interact (Meier, Kennedy, & Sacco, 2001). Prior to the development of the CEP, most theories would tend to focus on offender motivation, victimology, or social context, rather than integrating all three together (Pino, 2005).

CEP is not a theory of criminal behaviour so much as an instrument to help organize ideas and data and design models of crime, inclusive of situational factors (Anderson & Meier, 2004; Meier et al., 2001). CEP treats crime as a social event, emphasizing the importance of the offender's social context and their interactions with victims and the environment (Sacco & Kennedy, 1994, 1998, 2002). The behaviour of any one participant (offender or victim) in the criminal event intersects with and influences the behaviour of other participants, shaping the course of the event and determining the stages through which it progresses (Sacco & Kennedy, 2002). CEP, then, can be used as an exploratory tool that organizes information about multiple elements of a criminal event, which otherwise might not be easily integrated.

Criminal events differ from criminal acts (Sacco & Kennedy, 1994, 1998, 2002). Acts are instances of behaviour, while events include the context of the behaviour. The major advantage of CEP is that it conforms to the way the world works; like all forms of social events, criminal events have a beginning, a middle, and an end, occurring over time

in a sequential fashion (Sacco & Kennedy, 2002). Rather than simply reacting to the immediate environment, a CEP exploration postulates that individuals operate using a general set of beliefs that suggests how behaviour will be received by others and influenced by specific contexts. Certain routines of behaviour serve as "scripts" for what is likely to occur in these types of situations (Beauregard, Proulx, Rossmo, Leclerc, & Allaire, 2007; Kennedy & Gibbs Van Brunschot, 2001). By focusing on events rather than acts, the CEP presents a framework for analyzing crime that is less dependent on explanations based on an isolated category of variables with a single focus. The CEP moves instead to a conceptual level that views crime as a consequence of the choices people make in structured social contexts (Kennedy & Gibbs Van Brunschot, 2001).

The CEP is designed in such a way as to examine relevant factors that occur before the crime (precursors), interactions among participants during the crime, and resultant outcomes that stem directly from the crime (aftermath) (Sacco & Kennedy, 1994, 1998, 2002). Precursors refer specifically to any locational and situational factors that bring the offender and victim together in time and space, such as routine activities that affect the likelihood of victim-offender convergence (Cohen & Felson, 1979). Interactions within this model could mean between victim and offender, but also those between either victim or offender and a third party (such as a guardian). The aftermath of the criminal event represents direct corollaries of the crime, such as the police report and response, the reaction of the criminal justice system, the level of harm done to the victim, and any long term consequences that may affect the victim's life or that of their families (as in the case of severe disability or death of the victim). These three elements combine to create a relatively clear picture of what has taken place throughout the criminal event. Thus, in combination with offense chain models, the CEP will serve as a useful explanatory tool within the current analyses.

1.3. Theoretical Framework

Offense chains are exceptionally useful in helping to organize a distinct chronology of the situation surrounding the criminal event of a sexual assault. The in-depth procedural steps leading up to the crime and occurring after the crime that are delineated within these models are very helpful as a guiding framework for the current studies. Furthermore, while

not providing as much information in the pre- and post-crime phases, the CEP encompasses all steps in the crime commission process with the additional feature of denoting the difference between events and acts (and the superiority of analyzing events). The amalgamation of these two complimentary perspectives will allow for the best theoretical foundation to begin the tasks that are to be set out within the current analyses.

Although this is a relatively underdeveloped area, work recently conducted by Proulx and colleagues (2014) has opened the doors to this type of "all-encompassing" theorizing in terms of scripts and pathways of offending. Through several studies that focus on specific crime types (based mainly on the type of victim, including age and relationship to the offender), the importance of lifestyle, pre-crime, and within-crime factors are amalgamated into relevant offending pathways. The authors alternatively incorporate personality disorders, general lifestyle factors, sexual lifestyle factors, pre-crime elements (in the year prior to the crime), and MO variables within their models of each specific crime type[1] (Proulx et al., 2014). Although the final offending process pathways disseminated within Proulx et al. (2014) included only a subset of the most relevant of these factors, the inclusion of this array of potentially influential variables indicates the importance of encompassing the entire criminal event, including predisposing factors and variables relating to the commission of the crime itself. However, while the development of pathways for specific types of sex crimes increased the clarity, validity, and precision of these findings, there is something to be said for the loss in parsimony due to this organizational choice. Indeed, sexual offending is a complicated process that may be difficult to accurately predict in some circumstances. Yet, the overly specified, narrow application of offender groupings within which to develop distinct pathways (using a great number of variables) that was applied within Proulx et al. (2014) may serve to increase this complexity rather than elucidate useful, applicable models that can be understood by those affecting policy as well as the offenders or victims that should benefit from this knowledge. However, the information garnered by the studies amalgamated within Proulx et al. (2014) serves to add valuable knowledge to this domain for present and future researchers within the area, not the least of which is the importance of incorporating

[1] Of note is the fact that, within the "MO" categorization, Proulx et al. (2014) included direct pre-crime variables (within 48 hours of the crime), victim attributes and resistance, outcome measures, as well as true MO variables (elements relating to how the crime was committed).

elements of various stages before and within the crime into any complete discussion of the criminal event of sexual assault.

To that end, the most important aspect that reoccurs within offense chain models and the CEP is the notion that offenders make decisions situationally and are affected by the context surrounding the crime as well as by the behaviour of the players within the event itself (most notably, the victim). This is the design of the present analyses as well and, in fact, is the essence that underpins the entire mode of thought for these writings. Furthermore, the importance of partitioning out various stages or steps within the crime commission process is a vital component of both theoretical models, and will be one of the defining features of the proposed studies as well.

While offense chains and the CEP will aid tremendously to formulate and design the current analyses, there remains a theoretical gap that has not quite been explored in either of these perspectives. This is in regard to the multitude of steps that occur within the crime itself. After the crime has begun, the offender still has many decisions to make. These decisions could be in response to victim behaviour or to the surrounding environment, but regardless, the various stages that occur within the crime must be addressed in as much depth as those preceding and following the crime. To that end, the proposed analyses will extrapolate the essence of offense chains, with the help of the CEP, to examine the factors most relevant to various sexual offense outcomes with a particular focus on crime precursors *and* steps within the crime. The elucidation of a complete chronology of the sexual assault event is the eventual goal, incorporating the importance of offender decision-making throughout the commission of the crime.

Once the crime chronology is determined, this information will be able to aid in the ongoing pursuit of crime prevention. The results could offer a conceivable addition to the primary prevention of sexual assaults, such as through the identification of relevant factors that could be recognized by potential victims prior to the outset of an attack, as well as to tertiary prevention, such as through a high-risk sex offender's acknowledgement of proximal or distal factors that could lead him back into an assaultive situation so as to reduce his risk of engaging in recidivistic behaviour. However, primary and tertiary prevention are not – nor are they intended to be – the primary focus of the proposed

implications (For a discussion of a conceptual model of the three levels of prevention – primary, secondary, and tertiary – see Brantingham & Faust, 1976).

The main source of applicability of the proposed studies lies in a sexual assault victim's capability of assessing the situation to determine what he or she can do to avoid particular outcomes once an assault has begun. As well, a future offender himself can benefit from the knowledge to be gained from the current analyses by recognizing when an attack he has begun may lead to an outcome for which he is not prepared to face the consequences (whether moral or legal). Thus, certain, more serious outcomes can potentially be avoided if knowledge of the factors that lead to these outcomes once a crime has begun is gained. Using the groundwork provided by offense chains and the CEP, clarifying the relationships that exist between various stages of the crime and the final outcome will help to determine how to prevent particular outcomes of what are, unfortunately, inevitable crimes. Thus, while all sexual assaults cannot be prevented, the incidence of those resulting in the most serious outcomes might be able to be reduced if the results of the current study can be disseminated and utilized in the advancement of current public policy measures.

1.4. Vulnerable Victims

Victim characteristics and behaviours can have varying degrees of influence on the type of victimization to which they are exposed. This may be with respect to the incidence of victimization or repeat victimization, the severity or violence levels incurred during a particular victimization, or, in the case of sexual offenses, the success of the offender in terms of rape completion. Fattah (1995) suggested that victim and offender roles are dynamic to the point of becoming revolving and interchangeable. Congruent with this line of reasoning, others have found that the victim's actions during the commission of a sexual crime affect the offender's behaviour, just as the offender's actions will affect the victim's (Block, 1981; Luckenbill, 1977; Tedeschi & Felson, 1994). Thus, it is more than warranted to examine characteristics of the victim that may contribute to their victimization and to elements of crime patterns and progression.

Sex offenders will admit that target attractiveness is a crucial factor in their method of target selection and, by extension, a necessary component for the crime to take place

(Tedeschi & Felson, 1994). Target attractiveness can include a variety of victim characteristics, such as gender, age, and contributing family or home life factors (which often affect behavioural patterns). For example, research has shown that child victims having come from a non-criminogenic environment are the most at risk of a lethal sexual assault, particularly when the offender is a stranger (Mieczkowski & Beauregard, 2010). This may be due, in part, to the experience that develops when a victim lives in a criminogenic environment and the knowledge that may accompany such experience. For example, victims who have been exposed to criminal individuals in their past would be more aware of what situations to avoid and would be less likely to place themselves in situations in which a victimization could occur. This would be particularly true with respect to random stranger attacks, as these are the offenses that would more likely occur when a victim is careless or ventures into in an unsafe location (as opposed to assaults by known individuals, which would more often take place in the home or another seemingly "safe" area). With respect to victim gender, Balemba and Beauregard (2012) have discovered interaction effects wherein females are at a greater risk of encountering offender verbal violence and, to a lesser extent, physical violence in response to victim resistance during a sexual assault, but only when the offender begins with a nonviolent offending strategy. Relatedly, Kimerling, Rellini, Kelly, Judson, and Learman (2002) determined that male victims were more likely to suffer from psychological problems post-assault, while female victims more often sustained injuries and experienced penetration during a sexual assault.

Victim age is another important dimension of victim vulnerability. In general, studies indicate that offenders are most likely to escalate the degree of violence when offending against adult victims (Balemba & Beauregard, 2012; Hunter, 2008; Scott & Beaman, 2004; Spohn, 1994; Weaver et al., 2004), although Coker, Walls, and Johnson (1998) indicate a decline in traumatic injury to sexual assault victims over 21 years of age. Balemba and Beauregard (2012) postulate that the lower levels of violence against child victims may be due, in part, to more planning and preparedness on the part of the offender when offending against children. They suggest that offenses against adult victims are more impulsive and reactive, which results in a loss of control – apparent in how violently the offender reacts to resistance from the victim.

Previous research has also determined that younger victims are more likely to be subjected to penetration during a sexual assault (Woodhams, 2004; Woodhams, Gillet, &

Grant, 2007); however, these studies were restricted to cases involving juvenile offenders. Interestingly, Woodhams and colleagues (2007) determined an interaction effect between victim age and gender in that offenses against male victims were more likely to involve rape completion when the victim was older, while offenses against female victims were more likely to involve rape completion when the victim was younger. Thus, the overall finding that young victims are more likely to suffer penetration during an assault may be due to the fact that there are simply many more female victims of rape, both in the sample used by Woodhams et al. (2007) as well as in general. Sugar, Fine, and Eckert (2004) further found that genital-anal injury was more prevalent in victims under the age of 20 and over the age of 49, with the 20-49 age group suffering comparatively less trauma. However, this study was limited to female victims who were at least 15 years of age. Overall, therefore, victim characteristics encompass factors that are likely to affect the criminal event and, thus, must be incorporated into any model of sexual offending behaviour.

1.5. Disinhibitors

There is an abundance of research examining the effects of various disinhibitors on the likelihood of sexual aggression. Finkelhor and Araji (1986) were among the first to create a multi-factor explanatory model to describe the etiology of paedophilia that incorporated the importance of disinhibitors. This referred to the fact that, in order to sexually offend against children, offenders had to be able to overcome conventional inhibitions against such behaviour. Essentially, the controls that are present in the majority of the population are absent in these individuals so that the sexual abuse of children is perceived as acceptable, whether temporarily or throughout the individual's life. Such disinhibition could be due to a variety of factors, including alcohol or drug intoxication, senility, psychosis, neurological impairment, life stresses, or generally low impulse control (Finkelhor & Araji, 1986). This idea of disinhibition was further supported by Marshall and Marshall (2000) within a discussion of the origins of sexual offending in general. Thus, for rapists, as well as child molesters, disinhibitors such as intoxication, cognitive distortions, negative emotions, and stress serve to increase the likelihood of deviant fantasies and acts (Marshall & Marshall, 2000).

Research has consistently demonstrated a notable connection between increased levels of offender alcohol or drug intoxication and greater victim injuries in sexual assaults (Brecklin & Ullman, 2010; Busch-Armendariz, DiNitto, Bell, & Bohman, 2010; Coker et al., 1998; Martin & Bachman, 1998; Testa, Vanzile-Tamsen, & Livingston, 2004; Ullman & Brecklin, 2000), as well as a connection between victim intoxication and likelihood of injury, although there is disagreement as to whether victim intoxication leads to more violence and injury (Coker et al., 1998; Ullman & Knight, 1993) or less (Brecklin & Ullman, 2010; Testa et al., 2004). There is even less agreement on the effects of offender intoxication on rape completion. While many attest that intoxication leads to an increase in rape completion (Brecklin & Ullman, 2002; Busch-Armendariz et al., 2010; Ullman & Brecklin, 2000), others have found the opposite effect, with intoxication resulting in lower likelihoods of rape completion (Cleveland, Koss, & Lyons, 1999; Martin & Bachman, 1998). The difference in past results may be due to dosage levels. According to Testa and colleagues (2004), excessive offender intoxication appears to be negatively related to penetration during an assault, likely attributable to impaired sexual functioning, while low levels of intoxication were associated with the greatest likelihood of penetration, hypothesized by the authors as due to disinhibition, or a “liquid courage” effect. Thus, this curvilinear relationship may explain discrepancies in previous analyses of intoxication and its relationship to rape completion.

The issue of alcohol and drug intoxication clearly is in need of clarification and further exploration into the effects of both offender and victim intoxication. The confusion in the literature as to the relationship, not only to violence, but also rape completion, leads to the need for further investigation of this variable, particularly as it relates to other pertinent crime and victim variables. It is possible that there simply is no clear-cut, linear relationship between intoxication and outcome variables and that the matter can only hope to be resolved within a series of in-depth examinations of interrelationships between relevant variables, as well as the combinations of variables that are most likely to result in specifically defined assault outcomes.

Negative emotions have also been found to serve as disinhibitors to sexual offending. Based on a file review, Pithers, Beal, Armstrong, and Petty (1989) determined that negative emotional states (anger, low self-esteem, anxiety, depression) were common precursors to offending for rapists and child molesters. Furthermore, nondeviant

males have been shown to display significantly stronger arousal to rape scenarios after having been angered by females compared to when they were not in an angered state (Yates, Barbaree, & Marshall, 1984). This has also been supported with respect to deviant sexual fantasies; anger, loneliness, and humiliation were found to be related to an increase in deviant sexual fantasizing and associated masturbatory behaviours among sex offenders, although anger was only significant within the rapist group (Proulx, McKibben, & Lusignan, 1996).

Relatedly, deviant sexual fantasies themselves are purported to have a relatively direct disinhibitory relationship to sexually assaultive behaviour. Acting as a form of conditioning, repeated masturbatory activities that are paired with deviant sexual fantasies serve to motivate the desire to engage in the activities that are depicted in the fantasies (Marshall & Marshall, 2000). While the subject matter of the fantasies could arise from multiple sources (personal experiences, media portrayals, or self-created), the effect is the same, in that the content of the fantasies become the sexual preference of the individual, which could involve children or other nonconsenting partners. The direct relationship between deviant fantasies and sexually assaultive behaviour has benefitted from contradictory empirical support. There are some researchers who have found a connection between fantasies and sexually assaultive behaviour, best represented within a meta-analysis performed by Maniglio (2010). Although referring specifically to sexual homicide, Maniglio (2010) determined deviant sexual fantasies to be a significant factor in its etiology, although only when occurring in combination with early traumatic experiences and social or sexual dysfunction. Similarly, using structural equation modeling, Knight and Sims-Knight (2003) ascertained a strong connection between aggressive sexual fantasies and sexual coercion within a community sample and Williams, Cooper, Howell, Yuille, and Paulhus (2009) determined a significant relationship between deviant fantasies and related deviant sexual activity among college students. Alternatively, others have determined little empirical links between deviant fantasies and sexual offending (Marshall, Anderson, & Fernandez, 1999); however, Marshall and Marshall (2000) suggest that this may not be due simply to a lack of conditioning processes but, rather, that these processes are more complex than this hypothesis originally claimed. Thus, deviant sexual fantasies appear to be an important factor in the sex offender literature. How – or if – they affect specific criminal offenses is the next step within this body of knowledge to understand the connection between fantasies and offending as it relates to individual criminal events.

Pornography consumption is a related but distinct disinhibitor to sex offending. Pornography – especially violent or deviant pornography – is professed to amplify fantasies (Williams et al., 2009), thus increasing arousal and encouraging the individual to carry out the deviant behaviours practised within the pornographic material as well as in the fantasies that develop. Malamuth, Addison, and Koss (2000) published an extensive examination into the relationship between frequent pornography exposure and sexual aggression and observed a strong positive association, particularly when the content of the pornography was violent and when the men were already at a high risk for sexually violent behaviour. The authors proposed a difference in the way that sexual aggressors interpret and react to pornography compared to nonoffending groups, which could explain why some individuals view violent pornography and subsequently *do not* engage in sexually assaultive behaviour. Additionally, Marshall and Barbaree (1990) incorporate the importance of pornography availability in their integrated theory of the etiology of sexual offending. Research has been relatively consistent with respect to the relationship between pornography use and deviant or aggressive behaviour. While some have found no relationship (Langevin et al., 1988), most others have found a positive relationship (Donnerstein & Berkowitz, 1981; Marshall, 1988; Seto, Maric, & Barbaree, 2001; Williams et al., 2009), although this is often accompanied by a caveat that delineates the necessity of a predisposal to sexual offending. Research has also been conducted that denotes a relationship between pornography use and reduced aggression and victim injury during a crime, which has been suggested to be due to the offender's focus on the sexual aspect of the crime rather than violence (Mancini, Reckdenwald, and Beauregard, 2012). In general, disinhibitors are important factors to consider, especially as they relate to specific criminal events, as they can alter the incidence and progression of sexual assaults.

1.6. Situational Impediments

The situation has a powerful influence on criminal behaviour and outcomes. While it does not determine behaviour, as there is always a choice as to what situations people enter into and the behaviour they adopt in each situation (LaFree & Birkbeck, 1991), the situation plays a large role in terms of when and where crimes occur and, often, their progression and outcomes (Balemba & Beauregard, 2013; Brantingham & Brantingham, 1981). Although situational factors can create opportunities and make crime more likely,

there also exists the opposite effect, wherein situational elements are able to decrease the feasibility of crime, essentially making crime more difficult – a component that LaFree and Birkbeck (1991) refer to collectively as situational impediments. These can arise due to human factors (such as the capacity to identify offenders) or material factors (such as locked doors or barred windows). While LaFree and Birkbeck (1991) include victim characteristics under this label, the main focus is on direct situational impediments (including temporal and locational variables) as well as background conditions, such as the victim-offender relationship, that can decrease the likelihood of criminal events or affect their level of violence.

The level and type of relationship between offender and victim has been consistently supported as a contributing factor in the amount of violence and victim injury during a sexual assault. The most substantial differences have been found to lie between stranger-perpetrated versus acquaintance-perpetrated attacks (Weaver et al., 2004; Wilcox, Jordan, & Pritchard, 2006). However, sexual assaults between members of an intimate partnership (or courtship rape) have been shown to be among the most common types of sexual assaults (Baumeister, Catanese, & Wallace, 2002; Gidycz, McNamara, & Edwards, 2006; Ullman, 2007a). Despite the obvious agreement that offender-victim relationship is an important dimension to consider in any analysis of sexual assault, the literature has been inconclusive, and even contradictory, in how this relationship affects violence levels. Risk of violence has been suggested to be highest when the offender is known to the victim (Weaver et al., 2004), when the offender is a stranger (Scott & Beaman, 2004), and when the offender is a stranger or a romantic partner (Coker et al., 1998). This may be different still for child victims, who appear to be victims of more severe abuse when the abuse is perpetrated by a relative (Ullman, 2007b). Evidently, this area requires more research to determine the true nature of this relationship and what type of victim-offender relationship is most likely to serve as an impediment to violence.

Another important situational dynamic that can hinder the occurrence or escalation of violence is when the crime takes place – specifically, whether the offender is afforded the cover of darkness or not. The time of the crime forms part of what Brantingham and Brantingham (1981) refer to as the “fourth dimension of crime” (p. 8), which is the location in time and space in which the first three dimensions (legal, offender, and target) intersect to result in a criminal event. While there is a distinct lack of research examining the effects

of time on the incidence and outcome of sexual assaults in particular, Balemba and Beauregard (2013) did specifically examine this relationship using a sample of serial sex offenders. Therein, it was found that the time of day in which a crime occurs is intrinsically related to the age of the victim as well as multiple outcome variables, including the type of sexual acts (penetration, forced victim participation) and the level of force used by the offender. Due to the variety of interactions occurring between relevant variables, direct relationships were difficult to tease apart, but it appears to be the case that forced victim participation was more likely to occur during the day while penetration was more likely to occur at night (although the latter was only relevant for child victims) (Balemba & Beauregard, 2013). Furthermore, attacks that took place during the night were more likely to involve a minimal amount of violence while daytime assaults either involved no force or more force than necessary, resulting in a somewhat curvilinear relationship, although this was restricted to crimes with adult victims (Balemba & Beauregard, 2013).

Thus, although Balemba and Beauregard (2013) provided important information about the relationship between time of day and sexual assault outcomes, more research is required for replication as well as to delve further into the importance of time of day on various elements of the criminal event. While daylight may function as an impediment to some aspects of sexual crimes, it does not appear to be a simple, overarching hindrance and, perhaps, may affect various portions of the criminal event in different ways. This, in combination with the potential effects of the relationship between the victim and the offender, could be a key dimension of the criminal event and requires further empirical examination.

1.7. Offender Lifestyle

An offender's habits and the way he lives his life carry the potential to affect his choices and strategies before and during a sexual offense. Whereas many studies investigate the effects of lifestyle on the rate and type of victimization, such as within the well-developed routine activities theory (RAT; Cohen & Felson, 1979), few examine the role lifestyle plays in *offending* behaviour. RAT specifically explains the importance of lifestyle to where, when, and how often offenders and victims interact, which allows crime to occur. One of the most well-known applications of this theory was to explain the rise in

interpersonal crime that, according to Cohen and Felson, partially occurred due to women entering the workforce, thus increasing their time away from the relatively safe environment of their home (and also leaving their homes unguarded, leading to an increase in residential burglaries as well). While this served as an important addition to crime theory and research, RAT (and complementary research) did not necessarily address the effects of the *offender's* lifestyle on his level of crime commission.

Within his discussion of factors that can increase an offender's likelihood of recidivism, Pithers (1990) included the relevance of offender lifestyle characteristics. He discussed factors related to overwork and the chronic abuse of drugs and alcohol as increasing the likelihood of an offender relapsing (recidivating). While the direct effect of these background or lifestyle factors were not explicitly addressed in terms of how they relate to the various stages of Pithers' relapse prevention model (Proulx et al., 2014), their inclusion is indicative of their perceived relevance to the offending cycle. Pithers and colleagues (1988) even took this issue a step further to amend the original model to include early antecedent lifestyle factors, such as a lack of empathy and a need for power and control. Similarly, Ward et al. (1995) and Polaschek et al. (2001) also incorporate relevant offender background variables within their proposed pathways to offending; although, in these models, it is the offender's *perceptions* of his lifestyle (such as his relationships, employment, and hobbies) that is viewed as pertinent to later offending.

While underplayed within the criminological literature, there have, however, been a few notable studies specifically addressing the importance of offender lifestyle factors. Bouchard, Lussier, and Beauregard (2009) discussed their findings that drug dealers were more likely to sexually target intoxicated victims than any other sex offender. This relationship was hypothesized to exist due simply to the availability of intoxicated victims within the realm of the drug market. Nonetheless, it was still the lifestyle of the offender – as a drug dealer – that affected the type of victim he chose and, thus, the nature of his sexual offenses. Proulx and colleagues (2014) also discuss the importance of relevant lifestyle traits of a sexual offender, particularly in their discussion of marital rapists, who represent a specific type of offender targeting a spouse, usually for continued abuse over time.

In another relevant study, Blanchette, St-Yves, and Proulx (2009) identified three lifestyle types among rapists and child molesters. The first – the festive sex offender – lives a life that revolves around "partying" and sensation-seeking. His crimes involve little premeditation, excessive alcohol use, and victims who are familiar with a criminal environment. Aggression and force is high and the offender often uses a weapon, resulting in a high likelihood of victim injury. The second – the orderly sex offender – is a relative conformist, with a house, a car, and a steady partner, but is often uneducated and unemployed. He plans his crimes, often choosing prostitutes as his victims, and uses drugs and alcohol. Victim injury is high again, due to the use of a weapon and the use of victim humiliation techniques. The last type – the isolated sex offender – is a loner who spends most of his time at home or at work. Premeditation of his crimes is common, but not due to deviant fantasizing, and a stranger victim is often selected. The offense is coercive from the outset and many sexual acts take place during the assault.

While these studies are helpful in determining the importance of offender lifestyles to various crime characteristics, they do little to differentiate the severity of final crime outcomes. For example, Blanchette et al. (2009) do not shed much light on the types of lifestyle that lead to *lower* offender violence and victim injury or an offender's failure to successfully complete his sexual assault. These are important components to consider when determining the effects of offender lifestyle. Furthermore, it is relevant to investigate how such lifestyle variables as those examined in Bouchard et al. (2009) interact with a wider variety of crime, victim, situation, and outcome variables. Therefore, these studies should be built upon to further clarify the effects of offender lifestyle.

1.8. Victim Resistance

An essential situational component of sexual crime is the spectrum of possible reactions from the victim, ranging from resistance to capitulation; in fact, this is the most influential action a victim can take within the criminal event. While this can be viewed as another type of situational impediment (LaFree & Birkbeck, 1991), it is an important dimension of the crime that should remain distinct, due to its theoretical difference as well as its temporal location within the criminal event, occurring after the crime has begun and

the offender has chosen his attack strategy, but before its conclusion and eventual outcome (Balemba & Beauregard, 2012; Balemba, Beauregard, & Mieczkowski, 2012).

The level of victim resistance has been found to be specifically influenced by, among other factors, time of day, the presence of a weapon, and the presence of alcohol (Clay-Warner, 2003). Yet, despite its inherent importance, little research has examined the effect of victim resistance on the outcome of sexual assaults. Most of the work in this area has, thus far, been conducted by Ullman and colleagues, who have researched the effectiveness of resistance strategies under various circumstances (Ullman & Knight, 1993), the effects of resistance against different types of rapists (Ullman & Knight, 1995), violence escalation (or lack thereof) in rape attacks due to victim resistance (Ullman, 1998), and whether self-defense training affects women's responses to sexual attacks and their likelihood to resist (Brecklin & Ullman, 2005). Brecklin and Ullman (2005) found that women who had received self-defense training were more likely to resist and were more successful in their resistance. Overall, Ullman and colleagues have found that certain situational and crime factors influence the effectiveness of victim resistance (Ullman & Knight, 1993) but that, for the most part, the victim is less likely to be injured and rape completion is less likely to occur when the victim fights back. This is true regardless of rapist type (Ullman & Knight, 1995) or offender attack strategy (Ullman, 1998).

Despite these encouragingly straightforward results, it has been acknowledged that there may be inherent issues within some of the victim resistance literature with respect to the proximity of resistance to the outcome of the assault (Balemba & Beauregard, 2012; Balemba et al., 2012). That is, examining the impact of victim resistance on rape completion and victim injury to the exclusion of more proximate effects may hinder the interpretation of the results. Thus, Balemba and Beauregard (2012) and Balemba et al. (2012) have incorporated a more direct dependent variable relating to the offender's specific reaction to victim resistance. This variable – the offender's reaction to victim resistance – specifically denotes the chronology between victim resistance and subsequent violence (or lack thereof) on the part of the offender. Furthermore, it is a closer, more proximate relationship because the reaction is directly in response to resistance from the victim. The findings from these studies do not fully support the aforementioned results arising from research conducted by Ullman and colleagues. Balemba and colleagues (2012) determined that physical resistance from the victim

resulted in a violent reaction from the offender, which was differentiated from the offender's original attack strategy. Thus, while an offender who is violent from the outset of the offense will also likely react violently to victim resistance, it is also the case that offenders who begin with a nonviolent strategy (such as through conning or manipulation) are more likely to react violently when the victim physically resists (Balemba et al., 2012). Additionally, Balemba and Beauregard (2012) determined that the reaction to resistance was different depending on whether the victim was a child or an adult, and adult victims were more likely to encounter violence as a result of physical resistance.

Thus, it appears that the proximity of the offender's actions to the victim's resistance affects the interpretation of the effects of victim resistance. This is a crucial point, as this can affect policy recommendations and the information provided to victims. Therefore, analyses should be conducted in such a way as to account for both proximate and ultimate results of victim resistance within the criminal event.

1.9. Offender Modus Operandi (MO)

The decisions that an offender makes with respect to how the crime is committed are vital to any discussion of criminal events. Each decision, whether regarding the offender's approach to the victim, coercion levels when beginning an assault, the choice to use a weapon, or how long he is willing to allow the crime to proceed before exiting the crime scene, are pertinent to how the crime progresses as well as the resulting crime outcomes. Thus, how the offender chooses to commit his crime and the decisions that are made about the factors necessary for the crime to take place all become relevant in the level of violence and victim injury that results as well as whether penetration occurs.

The level of violence that an offender uses to commence the assault has been shown to affect later instances of violence. Expanding further on the previously mentioned relationship between offender violence and victim resistance, Balemba et al. (2012) determined that violently persuasive strategies to begin an assault were associated with a higher likelihood of violence in response to victim resistance. Balemba and Beauregard (2012) supported this finding and further determined this relationship to be most pertinent when the victim is a child. Thus, the greater the degree of violence within the early stages of an assault, the greater the likelihood that violence will be used in subsequent stages

during the criminal event. This makes intuitive sense to assume that an offender who is more likely to begin a sexual assault in a coercive manner is also the type of offender who would be more likely to further coerce his victim and respond violently to resistance. Violent strategies have also been determined to be related to victim resistance levels, with greater violence levels increasing the level of victim resistance (Leclerc, Wortley, & Smallbone, 2010). Thus, more aggressive strategies by the offender are more likely to elicit physical resistance from the victim, as well as resistance in general. Furthermore, this physical resistance is more likely to result in a more hostile reaction from the offender (Balemba & Beauregard, 2012; Balemba et al., 2012). In general, then, once introduced, violence levels continually increase as the crime progresses. Initial violent strategies increase the likelihood of later violence as well as physical resistance from the victim, the latter of which further increases the likelihood of violence in response to resistance.

What needs to be determined, then, is whether these factors have significant positive impacts on victim injury levels (i.e., whether the increases in violence are actually enough to cause more injury to the victim) and if there is any relationship to rape completion or forced victim participation. For instance, is an offender who begins with a violent strategy or approach, who is then faced with physical resistance from the victim, more likely to react violently, whether through overt physical aggression or increased forcefulness to complete the sexual assault? Research has shown that victims who resist are more likely to avoid penetration (Brecklin & Ullman, 2005; Ullman, 1998; Ullman & Knight, 1993, 1995), regardless of the level of coercion in the offender's original attack strategy (Ullman, 1998). However, this is a very important component of sexual offense research that must be further investigated; specifically, the temporal sequence of the offense must be taken into account to determine when certain factors become relevant and how these relate to the final crime outcomes.

The degree of planning or premeditation is an essential component of offender MO, as it relates to the spontaneity of the offense, which can have a major impact on how the crime unfolds and the resulting crime outcomes. Previous research has determined planning and preparation to be an important step in the offense process of child molesters, although this could be an implicit or an explicit process (Balemba & Beauregard, 2012; Proulx, Perreault, & Ouimet, 1999; Ward et al., 1995). This planning often involves an assessment of victim vulnerability and chance of apprehension (Leclerc & Tremblay,

2007). Furthermore, the notion of offenders “grooming” children as a way of normalizing or legitimizing sexual contact (Young, 1997) also corroborates the assertion that the element of premeditation is an important factor within the offending strategy of sexual abusers of children. However, the commensurate deficit of findings with respect to offenses perpetrated against adults could also be indicative of an overall lack of premeditation in this offender group. This could account for research that indicates a lack of planning by sexual offenders, such as Felson and Massoglia (2012), who determined that sexual offenders were no more likely to report planning their offense than homicide offenders (hypothesized as dispute-related, which would be largely emotion-driven); although their offenses did involve more planning than offenders who had committed physical assaults. Thus, this issue must be examined more closely when taking into account sex offenses against adults as well as those committed against children.

The use of a weapon by the offender has been found to be important in the outcome of a sexual assault. The presence of a weapon during an attack has been linked to a greater likelihood of lethality within sexual assaults (Mieczkowski & Beauregard, 2010) and increased offender violence (Balemba et al., 2012). Additionally, Cartwright and the Sexual Assault Study Group (1987) found that the use of a knife or a club was more likely to result in the victim sustaining an injury, while a gun as a weapon often did not involve victim injury. Thus, it would appear that the use of a gun is more of an intimidation technique, which may result in greater victim compliance, while the use of a knife or blunt weapon is intended for use as a method of injury. Comparatively, Ullman and Knight (1993) found that weapons of convenience, such as a rock, stick, or bottle, were more likely to lead to victim injury, while firearms or knives were not. While there remains debate about the most dangerous weapon type, previous research in general, however, tends to agree that the presence of a weapon significantly increases the likelihood of victim injury and/or death (Coker et al., 1998; Marchbanks, Lui, & Mercy, 1990; Porter & Alison, 2006; Weaver et al. 2004). Furthermore, when an offender is in possession of a weapon during an assault, rape completion is more likely to occur, likely due to a lack of resistance or an increased ability to overcome resistance (Ullman, 1997, 2007a). Thus, the presence of absence of a weapon is an important variable to include in any analysis examining the effects of offender MO on crime outcomes.

Lastly, the duration of the criminal event is a distinctly relevant variable, due simply to the fact that a greater number of behaviours or crime stages may be able to occur when the event extends for a longer period of time. Previous research has determined that, when the offender spends more time with the victim, violence is more likely to occur (Balemba et al., 2012), particularly within offenses committed against adult victims (Balemba & Beauregard, 2012). Again, this connection could simply be due to a greater amount of time available in which to harm the victim. This could extrapolate to rape completion as well, as the longer a crime continues, the more chances that arise for penetration to occur. Additionally, it has been postulated that an assailant may become frustrated and angry when a sexual assault takes longer than he had planned, which could lead to increasingly aggressive and violent behaviour (Mieczkowski & Beauregard, 2010). Thus, the length of the crime is an important dimension to consider within the context of offender MO because, while it may be situationally influenced (such as through the emergence of capable guardians to stop the assault), it is still the result of decisions made by the offender, both before and during the assault, and could be indicative of a different assault plan or offense goals, as well as the commitment of the offender to crime completion.

1.10. Aims of Studies

All of the preceding factors – those relating to victim characteristics, disinhibitors, situational impediments, offender lifestyle and MO choices, and victim resistance – are necessary for a thorough analysis of the sex crime event. Much of the sexual offense literature has investigated one or more of these variables as they relate to offender violence, victim injury, and/or rape completion. However, few, if any, previous studies examine all of these elements and their interrelationships, in addition to incorporating the chronology of the criminal event, to arrive at the elucidation of distinct trajectories that result in various offense outcomes. The current studies will attempt to fill these research gaps through a process of analytical stages that probe deeper with each step, shedding light on the aspects of the sex crime-commission process that are relevant to its final outcomes.

1.10.1. Study 1 – Factors that influence victim resistance

Before delving into an examination of factors that affect the final outcomes of sexual assaults, prior stages of the crime should first be examined. One of the most important of such stages is that which determines how the victim will react during the assault, as this can potentially affect the progression of the assault and its final outcome (Balemba & Beauregard, 2012; Balemba et al., 2012; Ullman, 1997, 1998; Ullman & Knight, 1991, 1993, 1995). Thus, the first of three studies will specifically focus on the victim, offender, situational, and crime variables that affect a victim's likelihood to resist a sexual assault to varying degrees. To truly understand the entire criminal event, not only must the offender's behaviour be examined, but the patterns of victim behaviour must be examined as well. The decision to resist and the type of resistance employed are among the most influential actions a victim can have on the crime once it has begun. Therefore, determining the factors that lead to no resistance, passive resistance, verbal resistance, or physical resistance by the victim is an important first step in elucidating the crime elements that differentiate various types of sexual crimes in terms of their progression and outcome.

The effect of victim resistance on consequent offender behaviour and/or crime outcomes has been studied a great deal in the literature (for example, Balemba & Beauregard, 2012; Balemba et al., 2012; Ullman, 1997, 1998; Ullman & Knight, 1991, 1993, 1995). However, very little has been done to determine the factors that affect victim resistance, with the notable exception of Leclerc and colleagues (2010), although this study was limited to offenses against children and the factors that lead to increased or decreased resistance by child victims. Hence, this is an area in particular need of research attention.

To begin the current examination, the variable that measures the degree of victim resistance will serve as the dependent variable. While this is described as an independent variable within subsequent sections – and is treated as such for the studies to follow – for this particular set of analyses, the focus will be on what affects the level of victim resistance, rather than its effect on later crime variables. The type of analysis will be a sequential logistic regression so that the variables may be entered according to their logical sequence of occurrence during the crime, with victim resistance as the final, dependent stage (see Figure 1). Thus, this will allow not only the indication of the

relevance of each variable on the type of victim resistance, but also any interaction effects that occur between independent variables can also be explored.

Figure 1. **Diagrammatic representation of proposed sequential logistic regression models with victim resistance as the dependent variable (Study 1)**

1.10.2. Study 2 – Examining interrelationships

The second study will examine the victim, situational, offender lifestyle, and crime factors that are relevant to sexual assault outcomes, with respect to level of violence and sexual intrusiveness. As the first step in the process of examining the importance of these factors as they relate to crime outcome, this study will serve to determine which relationships exist as well as which factors interact to produce various offense outcomes. Whereas each independent variable on its own has been demonstrated to be related to either the degree of violence or victim injury or the extent of sexual crime completion, and supported in the above review, there has yet to be a study that combines all of these factors. Thus, interrelationships may arise that affect the correlations to each outcome variable. These possible relationships must be examined in depth before further analyses can be conducted with confidence.

Previous research examining each of the relevant factors has tended to maintain a focus on a specific variable or subset of variables expected to be related to either offender violence or sexual intrusiveness. For example, Woodhams et al. (2007) focus mainly on the effects of victim variables and the number of suspects. Testa and her colleagues (2004) built their study around the specific relationship between victim and offender intoxication and assault outcomes. Malamuth et al. (2000) concentrated on the effect of pornography exposure on sexual aggression. Wilcox and colleagues (2006) specifically examined the importance of victim-offender relationship. Ullman (1997, 1998; Ullman & Knight, 1991, 1993, 1995), while incorporating various relevant variables, consistently maintains a focus on the effects of victim resistance in the context of rape avoidance throughout her collection of scholarly contributions. While each of these factors constitutes an important component of the literature and is necessary for consideration to understand the phenomenon of sexual assault, the next step must address the relationships that exist between these – and other – variables, and how these associations affect the outcome of a sexual crime.

Upon extended consideration, this gap that currently exists within the literature is puzzling. The notion that each of these variables or groups of variables would affect the final outcome of a sexual assault as if in a vacuum is not realistic. How can one portion of the criminal event not affect the next? This information is imperative to the field and must be discovered and clarified if there is any hope for research to help reduce the severity of sexual assaults. The criminal event is not a perfect entity. Even well-planned crimes are chaotic, capricious, and subject to outside influences as well as unpredicted internal influences. The best option that researchers, practitioners, and policy-makers have is to take as many of these factors into account as possible so as to improve predictions about offender behaviour under various crime conditions.

To accomplish this within the current study, sequential logistic regression analyses will be conducted to evaluate the effects of assorted groups of related variables on sexual assault outcomes. Variables will be entered into the regression analyses according to their chronological sequence within the criminal event, this time all the way through to the final crime outcomes (see Figure 2). Thus, not only will each individual variable be investigated to determine its importance within the sex crime event, but significant relationships between variables as the event unfolds will be uncovered as well. This will help to

determine at what point particular variables are important and at what point other variables take precedence with respect to offense outcomes. Thus, for example, offender lifestyle factors may prove to be important in the pre-crime stages, but, once other variables enter the equation, they may lose their relevance to crime severity. The delineation of these significant interrelationships will aid in the development of a comprehensive picture of the criminal event and the relevant relationships between its various chronological stages. Once an operational model is produced, this will then allow for the progression to more distinct, specific crime trajectories leading to relevant combinations of crime outcomes, which is the aim of Study 3.

Figure 2. **Diagrammatic representation of proposed sequential logistic regression models of crime outcomes (Study 2)**

1.10.3. Study 3 - Combining outcomes to differentiate the "best" from the "worst"

The third and final study will examine this issue from a different perspective. While maintaining a focus on the criminal event, as in Study 2, this study will further explore the chronological progression from one stage to another in terms of the series of events that lead to various combinations of crime outcomes. It is important to determine patterns of crime progression that exist within a variety of sexual assaults with differing outcomes. Specifically, what takes place within a sexual crime that results in: substantial victim injury or death; rape completion; neither substantial victim injury nor rape completion; or both substantial injury and rape completion? It is expected that very different offense sequences will lead to these distinct outcome combinations. This process can help to clarify the overall offense – from beginning to end – that leads to each outcome possibility.

While previous studies may have examined each of the current factors individually and, from there, determined their importance to various crime outcomes, there currently exist no previous studies that have attempted to amalgamate this information into a comprehensive, chronological analysis of the sex crime event. This research gap must be filled, as the chronology of any crime event is important in determining its outcome. Many studies and offense pathway models evaluate the relevant pre-crime factors that lead to the commission of the crime, but then disregard the existence of a relevant chronology within the crime itself (Proulx et al., 1999; Ward et al., 1995; Ward & Beech, 2006). The possible exception to this mode of analyzing the crime process is Polaschek et al. (2001), who attempt to examine the offense as one stage within the offending process. In this model, the offense itself, following the approach and preparation phases, is presented as a separate stage, within which the level of violence and degradation, the victim's response, and the offender's evaluation of the event are given prominence. However, these are only a few – albeit influential – variables of the many possible relationships that could be incorporated into this portion of such a model, leaving room for a great deal more. Thus, within most of the offense process literature, the actual sexual assault is one step in a series of pre- and post-crime stages. While these stages that occur before and after the sexual assault are relevant and equally important to acknowledge and study, the missing steps within the assault itself should not be discounted. What takes place during the actual crime phase can explain why one crime progresses in one direction and a different crime progresses in another, resulting in a more or less injurious or invasive final outcome.

In line with the rational choice theory proposed by Cornish and Clarke (1986), offenders often have some kind of plan, even if this is very limited in its design or degree of thought and may only be formed within the seconds before the crime actually takes place. This plan is designed by the offender to increase their likelihood of rewards and decrease their likelihood of punishments. Plans would be devised in much the same way by distinct offenders under similar pre-crime conditions; however, often, sexual crimes that begin in a similar way may result in very different crime outcomes. This is the point at which stages *within* the crime become important. Is the victim's reaction to the assault an important indicator that may change the offender's behaviour? Does the offender's MO affect this reaction? Will dominant emotions affect how the offender is perceived or how he reacts to victim resistance? These are all relevant notions that can perceivably affect the final crime outcomes, but that take varying paths within the crime itself. Being aware of the chronological steps after the crime has begun that lead to sexual crime completion, victim injury, both of these outcomes, or neither of these outcomes is required in order to determine the various criminal trajectories that exist. This revelation may allow research and policy to help decrease the number of sexual assaults resulting in crime completion and victim injury and increase the proportion of crimes with less severe final outcomes.

This information would be valuable to primary prevention initiatives (Brantingham & Faust, 1976) through educational programs for potential victims, as well as potential offenders, in learning how to avoid situations that may increase the chance of victimization or of offending. In terms of offenders, this could help repeat or potential offenders to recognize when an offense might occur before it begins or when it is still in the early stages of the crime event. Furthermore, and of equal value, this information could aid in secondary prevention (Brantingham & Faust, 1976) by teaching victims and offenders how to recognize when an offense is more or less dangerous with respect to the most likely outcomes, possibly allowing either party to decrease the severity of an offense once it has begun. Although an offense might still occur, if advance knowledge of potential outcomes can help to reduce the severity of sexual assaults – whether in terms of violence levels or crime completion – it is important that these patterns be revealed and fully understood.

To accomplish this research goal, the current study will consist of a sequential logistic regression analysis, with a specific focus on the relevant crime trajectories that result in victim injury, rape completion, both injury and rape completion, or neither injury

nor rape completion (see Figure 3). This analysis will allow for a more complete understanding of the crime types that result in various combinations of some of the most tangible, undesirable outcomes of a sexual assault. The information derived from the elucidation of offending patterns that result in various offense outcomes will be exceptionally useful to the criminal justice system as well as sexual offending research in general.

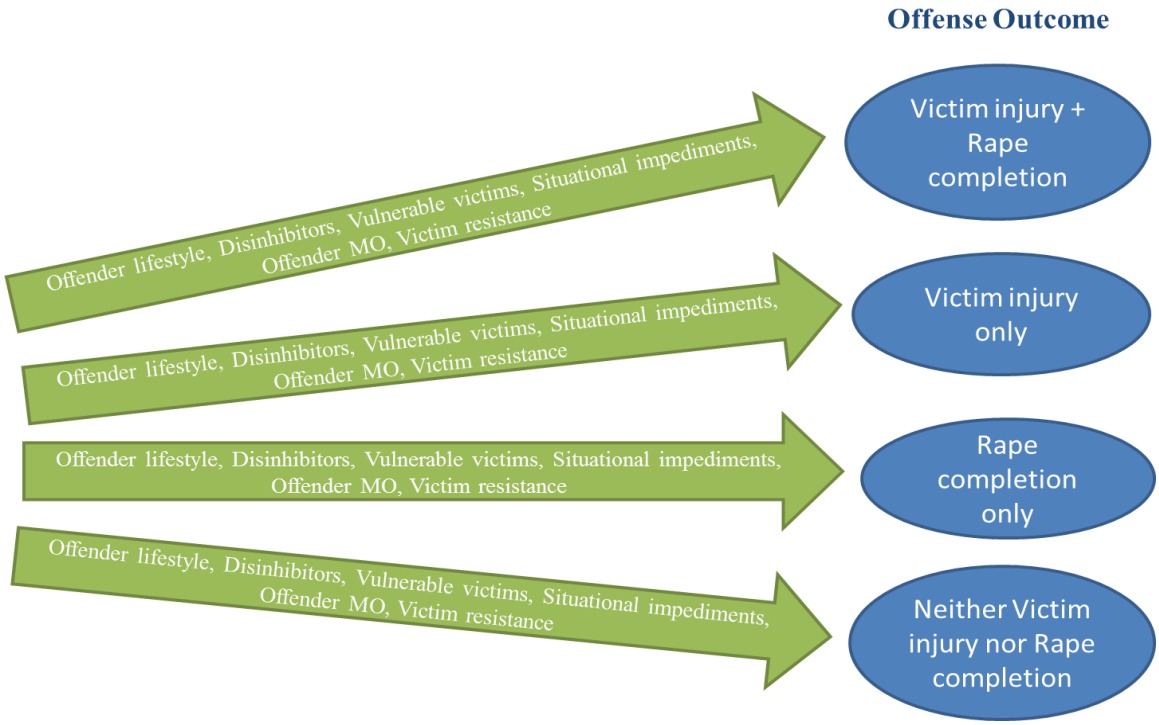

Figure 3 **Diagrammatic representation of proposed crime sequences (Study 3)**

Together, these three studies will help to clarify the sexual crime event. With such knowledge, current initiatives could be restructured and improved to account for any new findings or, alternatively, new programming could be put into practice to help reduce the incidence and severity of sexual assaults. Within the goal of prevention, the information to be gathered from the present analyses could help, not only in the prevention of sexual crimes before they occur, but also the specific prevention of particular crime outcomes. Sexual crimes will, unfortunately, always be a threat within any society. However, if, for example, one crime can be changed from an end result in which the victim is severely injured and the rape is completed to a result in which neither injury nor completion occurs, although a sexual assault has still taken place, the repercussions for the victim and for

society are not nearly as detrimental. Thus, the prevention of certain outcomes can be just as valuable as the prevention of crime in general.

Given that the proposed analyses could help identify possible primary, secondary, and tertiary prevention measures, it is imperative that these studies be seen through to their completion and subsequently distributed to as wide an audience as possible. Current sexual assault prevention methods can only be improved upon and the first step in doing so is to conduct innovative, valid research to uncover patterns that may yet remain hidden. That is the purview of the present analyses.

Chapter 2.

Methods

2.1. Participants

The current research consists of a secondary analysis of data collected within an earlier study. The data used for the present analyses arose from a survey for which all adult males serving a sentence of at least two years for a sexual crime in a Canadian federal penitentiary in the province of Quebec were recruited between April 1994 and June 2000. The participation rate was 93%, with a resulting final sample size of 613 inmates.[2] All participants signed a consent form indicating that the information gathered would be used for research purposes only. Participants included in this study were mostly Caucasian (87.7%). On average, they were 39 years old (SD = 12.0) and serving a prison sentence of 4.2 years (SD = 3.6). Participants' sexual crimes were committed against children (12 years old and younger; 33.6%), adolescents (between 13 and 15 years old; 13.4%), and adults (16 years and older; 53.1%). Although the vast majority (approximately 70%) of offenders had only one victim, if an offender had offended against multiple victims, the analyses were limited to the first victim to control for offending patterns arising due simply to the fact that multiple crimes were committed by the same offender.

2.2. Procedures

Data were collected during semi-structured interviews.[3] All interviewers were male graduate students in Criminology. They received extensive training in qualitative methods and interviewing techniques. Information was gathered on several aspects of the offender's life and criminal activity, including pre-crime, crime, and post-crime factors.

2 Eleven participants were dropped from the current study because of too many missing values.

3 The inmates were met following the intake assessment. The intake assessment is crucial in determining the institution (and the security level) where the inmates will be incarcerated for their sentence. However, since the interviews took place after this intake assessment, there was no chance it could have affected any decisions made during the intake. The offenders were well aware of this fact, as most of them had already received notice of their placements prior to the interview.

Details about participants' criminal activities were obtained from official data: police records, victim statements, and institutional case files. All questions regarding specific variables were asked of the offender within the interview; however, information provided by the offender was subsequently corroborated through various official sources (a process known as information triangulation). In cases of discrepancies between self-reported data gathered during the semi-structured interview and official data, the official data were always used. Inter-rater reliability was measured on the basis of 16 interviews (and consultation of official files). The mean kappa was 0.87, indicating very strong agreement.

2.3. Measures

Variables were grouped into categories based on theoretical and statistical similarity or proximity within the criminal event. The variable groupings as well as all of the individual variables and their corresponding levels and frequencies can be located in Table 1. As can be seen in this table, the highest percentage of a single category in any variable was 80.8% (victim gender: female). This indicates that the cases are sufficiently distributed between categories to avoid approaching the designation of a constant. Adequate variance is necessary to conduct valid statistical analyses.

Table 1. Univariate descriptors of variables

Vulnerable Victims	Levels
Victim gender	Female (80.8%) / Male (18.7%)
Victim age	Child (43.4%) / Youth (14.5%) / Adult (41.0%)
Victim from poor/dysfunctional background	No (60.6%) / Yes (34.5%)
Disinhibitors	**Levels**
Affect during crime	Aggression, anger (20.2%) / Sexual arousal (40.2%) / Other emotion dominant or Unknown (21.0%)
Alcohol before crime	No (52.3%) / Yes (45.6%)
Drug before crime	No (70.3%) / Yes (27.9%)
Pornography before crime	No (84.8%) / Yes (12.7%)
Deviant sexual fantasies before crime	No (69.8%) / Yes (30.2%)
Situational Impediments	**Levels**
Time of crime	Day/Both (51.8%) / Night only (47.6%)
Level of offender-victim intimacy	Stranger (19.0%) / Known, friend (33.9%) / Family, partner (46.5%)

Offender Lifestyle	Levels
Offender marital status	Single (65.3%) / Married, common law (34.0%)
Offender employed	No (58.5%) / Yes (40.8%)
Offender addicted to alcohol	No (63.2%) / Yes (35.6%)
Offender addicted to drug(s)	No (70.6%) / Yes (28.7%)
Victim Resistance	Levels
Type of victim resistance	None, passive (42.4%) / Verbal (19.4%) / Physical (36.1%)
Offender *Modus Operandi*	Levels
Premeditation	None (31.6%) / Unstructured (39.8%) / Structured (27.4%)
Type of approach to commit crime	Noncoercive (50.5%) / Coercive (48.9%)
Strategies to commit crime	No specific strategy (28.5%) / Nonviolent persuasion (23.9%) / Violent persuasion (46.8%)
Use of a weapon	No (74.7%) / Yes (25.0%)
Length of crime	Less than 15 min (35.8%) / More than 15 min (57.3%)
Degree of Violence	Levels
Physical harm inflicted on victim	None (62.4%) / Physical injury (23.5%) / Death (13.4%)
Level of physical force	None (32.9%) / Minimum required to commit offense (29.8%) / More than necessary (36.8%)
Offender reaction to victim resistance	No perceived resistance, No coercion (47.5%) / Verbal coercion (17.1%) / Physical coercion (34.5%)
Sexual Intrusiveness/Completion	Levels
Rape completed (Penetration)	No (29.8%) / Yes (66.6%)
Victim forced to commit sexual acts	No (41.8%) / Yes (56.3%)

2.3.1. Dependent variables

Due to the nature of the analytical techniques for the current studies, there were multiple dependent variables chosen for analysis. These fall under two general groupings: degree of violence and sexual intrusiveness. The dependent variables related to the degree of violence were all ordinal in nature and included: physical harm inflicted on victim (0 = *none*, 1 = *physical injury*, 2 = *death*); level of physical force (0 = *none*, 1 = *minimum required to commit offense*, 2 = *more than necessary*); and offender reaction to victim resistance (0 = *no perceived resistance/no coercion*, 1 = *verbal coercion*, 2 = *physical coercion*). The physical harm inflicted on the victim referred to injuries in addition to and distinct from those sustained due to the sexual assault itself. For example, minimal vaginal tearing or bleeding would not be classified as a physical injury, as this generally would arise due to forced intercourse and is indicative of rape completion, but not overt physical

violence. However, excessive abrasions due to genital mutilation or foreign object insertion would be classified as physically injurious. With respect to the offender's reaction to victim resistance, physical coercion was considered to have occurred when the offender utilized physical force in the commission of the sexual assault to overcome victim resistance. Verbal coercion was operationalized as the use of negotiation, insistence, or verbal threats by the offender in response to victim resistance. No coercion was coded for offenders who stopped the assault, ran away, or did not comprehend or were unaffected by the victim's resistance. This category also incorporated cases of no resistance, which inferred a lack of overt resistance from the victim, as in cases of assaults against unconscious or severely impaired victims.

There were two dichotomous sexual intrusiveness dependent variables: rape completed/penetration (0 = *no*, 1 = *yes*) and victim forced to commit sexual acts (0 = *no*, 1 = *yes*). Rape completion was considered to have occurred in cases of digital or penile penetration and regardless of whether penetration was vaginal or anal. Whether the victim was forced to commit sexual acts was viewed as an important variable for inclusion as this is a distinctly different form of assault than strict penetration and includes forced fellatio and masturbation of the offender as well as any forced sexual acts on a third party.

2.3.2. Vulnerable victim variables

Three victim characteristics were selected: victim gender (0 = *female*, 1 = *male*); victim age (0 = *child/12 and younger*, 1 = *youth/13-15*, 2 = *adult/16 and older*); and victim from poor/dysfunctional background (0 = *no*, 1 = *yes*). The background variable was scored *yes* when at least one of the following items was identified: (i) the environment in which the victim was living did not possess sufficient resources to meet the basic needs of the victim (e.g., sleeping, eating, clothing, housing, security) or of the other members living with the victim, (ii) the victim was coming from a dysfunctional background (e.g., physical, psychological, or sexual abuse, prostitution), or (iii) where alcohol and/or drug abuse were present. This information was corroborated with official data (specifically, victim statements or police records in this case). In general, it is important to consider these victim variables because sex offenders' level of violence and degree of intrusiveness are expected to depend on the type of victim they are inclined to target.

2.3.3. Disinhibitors

Five variables considered to possibly serve as behavioural disinhibitors were included in the analyses: affect during crime (0 = *aggression/anger*, 1 = *sexual arousal*, 2 = *other emotion dominant*); alcohol before crime (0 = *no*, 1 = *yes*); drug before crime (0 = *no*, 1 = *yes*); pornography before crime (0 = *no*, 1 = *yes*); and deviant sexual fantasies before crime (0 = *no*, 1 = *yes*). The affects included under the "other" designation included: guilt, regret, or shame; loneliness or boredom; sadness or depression; anxiety, agitation, or nervousness; fear; emptiness or confusion; happiness, joy, or love; and quiet or well-being. Alcohol, drug, and pornography consumption prior to the crime referred to use of these materials within a few hours before the commission of the assault. Thus, an offender scoring "yes" for these variables could be considered to have been under the influence of these substances or materials during the commission of the assault (or at least during the beginning stages, if the assault occurred over an extended duration of time). Deviant sexual fantasies were coded as present if they were reported to have taken place any time within the 48 hours prior to the sexual offense. Fantasies could have included the particular victim or not. This information was gathered from the offender during the interview, but was corroborated by information provided in the offender's institutional case file. These variables encompass the hypothesis that pre-crime influences freeing an offender from internal inhibitions can have an effect on the likelihood of offender violence and crime completion within a sexual assault.

2.3.4. Situational impediments

Two situational impediment variables were chosen for inclusion: time of crime (0 = *day*, 1 = *night*) and level of offender-victim intimacy (0 = *stranger*, 1 = *known/friend*, 2 = *family/partner*). Within the time of crime variable, for any instances in which the crime was reported to have occurred during both the day and the night, these were designated as daytime crimes, as it seemed to be most important to distinguish those offenders who would commit their crime during the day at all (as it can be hypothesized that some daytime crimes might be more difficult to complete than if they had been afforded the cover of darkness). The level of offender-victim intimacy serves as an ordinal representation of the degree of familiarity. Thus, while an offense against a family member (such as against a related child) is very different from an assault between members of an intimate

partnership (courtship rape), the level of familiarity between victim and offender would be very high in both instances. This level of familiarity and, thus, recognisability (or the ability of the victim to name their attacker) as well as the possible hindrance to the victim's willingness to identify their attacker (due to friendship or family loyalties) represents the dimensions of interest encompassed by this variable. Overall, situational impediments signify aspects of a case that might serve to reduce the severity of an assault because it becomes more difficult to complete (LaFree & Birkbeck, 1991), whether in reference to violence levels or sexual acts.

2.3.5. Offender lifestyle

There were four variables selected to represent the effects of the offender's lifestyle: offender marital status (0 = *single*, 1 = *married/common law*); offender employed (0 = *no*, 1 = *yes*); offender addicted to alcohol (0 = *no*, 1 = *yes*); and offender addicted to drug(s) (0 = *no*, 1 = *yes*). The marital status variable levels were designated as such to examine the difference between an offender who currently lives with a partner compared to an offender who does not. The addiction variables are meant to examine a completely different concept than the disinhibitor variables examining intoxication before/during the crime itself. The lifestyle of an addict is a distinct factor that might affect how he plans and/or commits his crimes, compared to the intoxication itself, which can affect his behaviours during the state of intoxication. Furthermore, the lifestyle of an offender addicted to alcohol may be very different from that of an offender addicted to drugs, due in part to the increased availability (and legality) of alcohol compared to most drugs, the differing degrees of addictiveness of the substances, and the divergent effects they can have on a user's life and physical health. Also, since the disinhibitor variables were separated, consistency was maintained with the separation of the types of long-term addiction as well. In general, this group of variables is important to include within the current analyses due to the potential effect that lifestyle can have on the types of criminal opportunities that an offender seeks out, is exposed to, or recognizes as opportunities.

2.3.6. Victim resistance

This section only includes one variable: type of victim resistance (0 = *none/passive*, 1 = *verbal*, 2 = *physical*). Victim resistance was coded as verbal when the victim screamed,

shouted for help, or made some other verbal indication of a clear “No” to the offender’s sexual advances. Physical resistance included cases in which the victim was kicking, punching, or otherwise attempting to physically stop the offender’s assault, often incorporating verbal resistance as well. This variable was designated as requiring its own grouping due to its importance within the criminal event (Balemba & Beauregard, 2012; Balemba et al., 2012) as well as its temporal distinctiveness. This is a portion of the crime process that occurs at some point between when the crime has begun and its final outcome. Thus, particularly within the analyses examining the chronological component of the crime event, it is important to allow this variable “grouping” to fall where it will within the crime chronology. Victim resistance has been shown to affect the offender’s subsequent violence levels (Balemba & Beauregard, 2012; Balemba et al., 2012) and, thus, can be hypothesized to affect the final sexual assault outcomes as well.

2.3.7. Offender modus operandi (MO)

The final independent variable group consists of five variables related to the offender’s crime commission process: premeditation (0 = *none*, 1 = *unstructured*, 2 = *structured*); type of approach to commit crime (0 = *noncoercive*, 1 = *coercive*); strategies to commit crime (0 = *no specific strategy*, 1 = *nonviolent persuasion*, 2 = *violent persuasion*); use of a weapon (0 = *no*, 1 = *yes*); and length of crime (0 = *less than 15 minutes*, 1 = *more than 15 minutes*). Premeditation refers to the degree of preparedness before the crime or, alternatively, the degree of spontaneity evident during the commission of the crime. Thus, premeditation could be absent or present, but there is a noted difference between cases in which a distinct plan was created and followed compared to cases in which only the most basic facets of the crime were planned. The type of approach referred to how the crime began, whether noncoercively (as in cases in which the offender manipulated the victim or was able to begin the assault without a great deal of resistance at the outset) or more coercively (as in cases where the assault was violent from the beginning). The approach variable is distinct from the strategies that occur during the crime, the latter of which refer more to how the crime was committed after it had begun. In general, the MO variables describe factors over which the offender has direct control during or directly preceding the sexual assault. The offender must therefore make a decision with respect to each of these factors while the criminal event is taking place, and

interactions with the victim, the victim's responses, and certain situational factors may affect some or all of these decisions.

2.4. Analytical Strategy

2.4.1. Study 1 – Factors that influence victim resistance

As an introduction to all three studies, bivariate statistical analyses will first be performed to test the relationships between the independent variables and the various dependent variables (either victim resistance for Study 1 or offense outcomes for Studies 2 and 3). For this step, bivariate correlations[4] will be examined as well as Pearson *chi*-square analyses. Independent variables that are determined to be significantly correlated with one or more of the dependent variables at the bivariate level will then be included in the multivariate analyses.

In terms of the multivariate analysis, a sequential logistic regression analysis was chosen due to the fact that the dependent variable (victim resistance) is categorical. The main purpose of this regression analysis is to elucidate a model that best predicts increased levels of victim resistance. Sequential logistic regression was chosen in particular to allow for the inclusion of groups of independent variables as they occur according to the temporal sequence during a sexual crime (offender lifestyle, disinhibitors, victim characteristics, situational impediments, offender MO; refer to Figure 1) and to facilitate the discovery of interaction effects between blocks. Furthermore, due to the number of levels of the dependent variable for this study, a multinomial sequential logistic regression model is most appropriate.

Logistic regression analyses produce different effects depending on the variables that are entered, regardless of the actual effect that each variable on its own may have on the dependent variable. Thus, even variables that are not significantly related to the dependent variables can affect the block of which they are a part, as well as the model as a whole. Therefore, to delineate a final model requires the exclusion of particular variables

[4] Pearson's *r* values are the reported correlations. Spearman's rho values were also examined, but the numbers were very similar and, thus, are not reported.

until a parsimonious model emerges in which all of the independent variables play a significant role. This was accomplished by systematically removing nonsignificant factors from the model until only those significant ($p < .05$) at some point in the model remained. Within the discussion of the results for all three studies, the preliminary models as well as the parsimonious models for each dependent variable will be presented. This is to ensure that it is possible to compare the models that include all of the independent variables to those that only feature the independent variables found to be significant at some point within the model. While the parsimonious models will be of most use, the preliminary models are important to include so as to examine potential interrelationships that may exist and, especially, to view – and potentially discuss the importance of – particular variables that were *not* significant and, thus, were not included in the final model.

2.4.2. Study 2 – Examining interrelationships

Sequential logistic regression analyses were again chosen as the main multivariate analyses due to the categorical nature of each dependent variable. The main purpose of the logistic regressions within this study is to determine the models that best predict increased offender violence, victim injury, and sexual intrusiveness. As in Study 1, sequential logistic regression will be used so that variables may be entered into the model according to their logical sequence of occurrence during the criminal event (offender lifestyle, disinhibitors, victim characteristics, situational impediments, offender MO, victim resistance; refer to Figure 2). Furthermore, the comparison of the sequential blocks of independent variables will allow the detection (although not a clear delineation) of potential moderation effects between blocks, indicating possible interaction effects.

Due to the number of dependent variables, multiple logistic regression analyses will be performed. In total, five different models will be created – one for each dependent variable. Based on the nature of the dependent variables and their number of levels (refer to Table 1), multinomial logistic regression will be used for the three indicators of violence (physical harm inflicted on victim, level of physical force, and offender reaction to victim resistance) and binomial logistic regression will be used for the two indicators of sexual intrusiveness (rape completed (penetration) and victim forced to commit sexual acts).

2.4.3. Study 3 – Combining outcomes to differentiate the "best" from the "worst"

Subsequent to the analyses in Study 2 examining the factors that influence various outcome variables, it becomes apparent that the next step is to combine some of these outcomes to determine the crime commission processes that lead to a combination of some of the worst offense outcomes. While it is important to evaluate the influential variables leading to each of these crime outcomes individually, the next stage to more closely approximate the chaotic, "real world" situation of a sexual assault is to incorporate multiple possible outcomes – namely, the most tangible, victim-focused outcomes of rape completion and victim injury or death. The factors that differentiate the various combinations of these outcomes are expected to provide an additional level of depth to the analysis of the sex crime event.

To accomplish this aim, a distinct dependent variable is created for this study that combines the victim injury variable and the rape completion variable. This victim injury and/or rape completion variable has four levels: 0 = *neither victim injury nor rape completion*; 1 = *rape completion only*; 2 = *victim injury only*[5]; 3 = *both victim injury and rape completion* (see Table 2). Thus, the purpose of examining this variable is to determine what factors lead to none, only one, or both of these adverse outcomes.

Table 2. Univariate descriptors of victim injury and/or rape completion dependent variable

Level	Frequency (%)
Neither victim injury nor rape completion	132 (21.5%)
Rape completion only	253 (41.3%)
Victim injury only	52 (8.5%)
Both victim injury and rape completion	176 (28.7%)

Similar to the previous two studies, the current study will use sequential multinomial logistic regression analyses to examine the effects of the independent variables on the likelihood of the various outcome combinations. Due to the importance of both extremes of this dependent variable (neither outcome or both outcomes), and the importance of discerning what increases the likelihood of either combination, two separate

5 The "victim injury" level incorporates cases in which there was significant physical injury to the victim as well as cases in which the crime resulted in the victim's death.

regression analyses will be conducted, each using one of these levels as the reference category. That is, each level will be compared to when neither victim injury nor rape completion take place as well as to when both injury and penetration occur. This way, the full gamut of possible distinctive factors can be discerned, regardless of whether one is interested in determining how to reduce the worst outcomes or increase the least damaging outcomes (presumably, both of these implications are of practical importance).

Chapter 3.

Results and Discussion – Study 1

Factors that Influence Victim Resistance

3.1. Results

Beginning with the relationships observed in the bivariate correlation matrix (see Table 3), it is evident that the level of victim resistance is related to almost all of the other independent variables to some extent. In fact, there exists a significant correlation between victim resistance and all other independent variables, with the exception of victim background, offender marital and employment status, and premeditation.[6] The highest correlations were found between victim resistance and: the offender's approach ($r = .603$, $p < .001$); strategies to commit the crime ($r = .522$, $p < .001$); and victim age ($r = .522$, $p < .001$).

6 However, these variables were still entered into the original, preliminary regression analyses to determine if any interaction effects existed, particularly due to their support within previous research as potentially relevant variables within the sexual crime event.

Table 3. Bivariate correlation matrix between independent variables

Variables	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1. Vic gender	-.263**	.135**	.074†	-.163**	-.072†	.137**	.198**	-.152**	-.049	-.162**	.003	-.150**	-.121**	-.221**	.109**	-.275**	-.154**	-.107**	-.132**
2. Vic age	1.00	-.005	-.284**	.332**	.264**	-.108**	-.116**	.382**	-.425**	-.036	-.094*	.135**	.259**	.522**	.023	.657**	.598**	.455**	.217**
3. Vic poor/dys		1.00	.004	.022	.088*	.076†	-.007	.028	.076	-.026	-.125**	.014	.052	-.001	-.011	-.048	.014	-.101*	.058
4. Off affect			1.00	-.140**	-.104*	.014	-.094*	-.130*	.124*	-.014	-.046	-.059	-.052	-.172**	-.088*	-.255**	-.257**	-.266**	-.107**
5. Alcohol before				1.00	.372**	-.014	-.056	.329**	-.146**	.021	-.062	.413**	.248**	.281**	-.135**	.334**	.295**	.173**	.102*
6. Drug before					1.00	.040	.020	.164**	-.127**	.018	-.104**	.216**	.535**	.177**	-.040	.232**	.205**	.105**	.086*
7. Porn before						1.00	.191**	-.133**	.104*	-.019	-.005	-.062	-.028	-.165**	.092*	-.125**	-.020	-.077†	-.026
8. Fantasies before							1.00	-.111**	-.090*	-.091*	.033	-.009	-.024	-.093*	.302**	-.095*	-.001	-.014	.060
9. Time								1.00	-.263**	-.035	-.087*	.110*	.178**	.305**	-.086*	.298**	.239**	.193**	-.019
10. Off-vic intimacy									1.00	.125**	.094*	-.050	-.091*	-.258**	-.085*	-.381**	-.357**	-.278**	-.085*
11. Marital status										1.00	.059	.029	-.087*	-.022	.001	.034	.047	-.034	.050
12. Employed											1.00	-.129**	-.124**	-.024	.148**	-.051	-.041	.010	.047
13. Alcohol addict												1.00	.345**	.126**	-.184**	.143**	.071†	.041	-.081*
14. Drug addict													1.00	.173**	-.086*	.217**	.181**	.150**	-.022
15. Vic resist														1.00	-.017	.603**	.522**	.308**	.128**
16. Premed															1.00	-.003	.085*	.048	.116**
17. Approach																1.00	.842**	.537**	.228**
18. Strategies																	1.00	.493**	.270**
19. Weapon																		1.00	.208**
20. Length																			1.00

† $p < .10$. * $p < .05$. ** $p < .01$

Note. Variable names were shortened due to space constraints; full variable names are available in-text and in Table 1.

With respect to the multivariate analyses, a multinomial logistic regression model was developed to incorporate the variables that significantly differentiated the levels of victim resistance ($p < .05$) within at least one block. While the preliminary model can be found in Table 4, this final model – the parsimonious model – is presented in Table 5. As is evident within this table, eight variables provided a significant addition to the explanation of variance in the victim resistance variable: drug addicted; affect during the crime; alcohol before the crime; pornography before the crime; victim age; time of the crime; approach to commit the crime; and strategies to commit the crime. According to the -2 LL (-2 Log Likelihood) and related *chi*-square statistics, the model was significant at all blocks, with an increasingly significant difference from an intercept-only model upon the addition of each successive block. Furthermore, as calculated by Cox and Snell Pseudo R^2, the goodness-of-fit increased with each block addition from .030 in Block 1, to .209 in Block 2, to .317 in Block 3, to .326 in Block 4, to .406 in Block 5.

The most influential variable on the level of victim resistance in terms of magnitude of the *B* statistic in the final block (combined with significance of the effect) was pornography consumption by the offender prior to commission of the crime. According to the current results, when pornography was used, the victim was more likely to verbally resist ($B = -1.268$, $p < .01$) or not overtly resist at all ($B = -1.167$, $p < .01$) rather than resist physically. The next most important variable in terms of its impact on victim resistance was the victim's age. While there was no significant difference between adult (>16 years old) and adolescent (13-15) victims in terms of resistance, child victims (<12 years old) were significantly less likely to physically resist, being more likely to show little to no resistance ($B = 1.140$, $p < .01$) or, to a lesser extent, to verbally resist ($B = .869$, $p < .05$). The time of day when the crime took place was also a significant predictor of level of victim resistance, with nighttime crimes resulting in a greater likelihood of physical resistance, compared to both verbal resistance ($B = .669$, $p < .05$) and no/passive resistance ($B = .605$, $p < .05$). The offender's approach also affected the level of victim resistance, with a noncoercive approach more often leading to no resistance from the victim ($B = 1.450$, $p < .05$). Similarly, compared to cases in which a violent offending strategy was used, a nonviolent offender strategy ($B = 1.248$, $p < .05$) and, to a lesser degree, no strategy at all ($B = 1.068$, $p < .10$) was more likely to elicit no or passive resistance from the victim.

Table 4. **Preliminary sequential multinomial logistic regression model for type of victim resistance (as dependent variable)**

Predictor	Block 1				Block 2				Block 3			
	None/passive vs. Physical		Verbal vs. Physical		None/passive vs. Physical		Verbal vs. Physical		None/passive vs. Physical		Verbal vs. Physical	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Offender lifestyle												
Marital status	-.042	.194	.467†	.254	-.136	.218	.391	.270	-.113	.240	.485†	.284
Employed	.010	.191	-.366	.233	-.044	.213	-.456†	.249	.167	.237	-.331	.263
Alcohol addicted	.363†	.204	.154	.252	-.171	.244	-.330	.288	-.049	.266	-.230	.298
Drug addicted	.740**	.219	.233	.261	.229	.281	-.146	.327	-.075	.309	-.364	.342
Disinhibitors												
Affect during (Other)												
Aggression/anger					-1.292***	.291	-1.079**	.343	-.437	.326	-.467	.369
Sexual arousal					.803**	.237	.545	.282	.711**	.263	.436	.298
Alcohol before					.988***	.237	.934**	.284	.652*	.261	.717*	.296
Drug before					.390	.281	.255	.333	.169	.306	.121	.344
Porn before					-1.180**	.381	-1.252**	.417	-1.153**	.410	-1.217**	.435
Fantasies before					-.140	.237	-.055	.277	.079	.262	.021	.292
Vulnerable victims												
Victim gender									-.565†	.338	.008	.390
Victim age (≥ 16)												
≤ 12 years									2.350***	.287	1.811***	.330
13 – 15 years									1.077**	.340	1.091**	.386
Victim background									.177	.240	-.077	.268
-2 Log Likelihood	156.741				678.057				871.313			
Model chi-square	29.477***				155.020***				248.961***			
Cox & Snell Pseudo R^2	.047				.223				.334			

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$

Note. Variable names were shortened due to space constraints; full variable names are available in-text and in Table 1; *B* = beta weights; SE = standard error.

Predictor	Block 4				Block 5			
	None/passive vs. Physical		Verbal vs. Physical		None/passive vs. Physical		Verbal vs. Physical	
	B	SE	*B*	SE	*B*	SE	*B*	SE
Offender lifestyle								
Marital status	-.086	.243	.553†	.288	-.256	.267	.459	.299
Employed	.206	.241	-.264	.268	.221	.265	-.217	.283
Alcohol addicted	-.004	.269	-.191	.303	-.019	.302	-.231	.322
Drug addicted	-.122	.313	-.389	.347	-.116	.337	-.396	.357
Disinhibitors								
Affect during (Other)								
Aggression/anger	-.452	.326	-.463	.373	-.019	.362	-.273	.392
Sexual arousal	.754**	.268	.502†	.303	.609*	.303	.392	.326
Alcohol before	.468†	.271	.552†	.309	.329	.302	.489	.326
Drug before	.194	.309	.125	.349	.058	.334	.069	.360
Porn before	-1.025*	.420	-1.026*	.448	-1.205**	.451	-1.229**	.464
Fantasies before	.065	.269	-.009	.299	.090	.308	-.017	.326
Vulnerable victims								
Victim gender	-.597†	.352	-.147	.406	-.227	.384	.124	.427
Victim age (≥ 16)								
≤ 12 years	2.049***	.314	1.394***	.360	1.266**	.367	.850*	.403
13 – 15 years	1.001**	.346	.996*	.393	.378	.405	.627	.425
Victim background	.205	.246	-.062	.274	.197	.272	-.066	.291
Situational Impediments								
Time of crime	.589*	.248	.565*	.283	.629*	.274	.582†	.297
Off-victim intimacy (Stranger)								
Known/friend	.283	.328	.020	.378	-.107	.353	-.105	.388
Family/partner	.441	.341	.606	.378	-.196	.372	.317	.395

Predictor	Block 4				Block 5			
	None/passive vs. Physical		Verbal vs. Physical		None/passive vs. Physical		Verbal vs. Physical	
	B	SE	*B*	SE	*B*	SE	*B*	SE
Offender MO								
Premeditation (Structured)								
None					.056	.353	-.224	.388
Unstructured					-.206	.319	.096	.339
Approach					1.629**	.589	.727	.663
Strategies (Violent)								
No strategy					1.194*	.605	1.170†	.677
Nonviolent					1.304*	.603	.962	.686
Weapon					-.587†	.339	-.325	.360
Length of crime					-.088	.287	-.173	.308
-2 Log Likelihood	955.537				934.083			
Model chi-square	261.873***				343.720***			
Cox & Snell Pseudo R^2	.348				.429			

† $p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$

Note. Variable names were shortened due to space constraints; full variable names are available in-text and in Table 1; *B* = beta weights; SE = standard error.

Table 5. Parsimonious sequential multinomial logistic regression model for type of victim resistance (as dependent variable)

Predictor	Block 1				Block 2				Block 3			
	None/passive vs. Physical		Verbal vs. Physical		None/passive vs. Physical		Verbal vs. Physical		None/passive vs. Physical		Verbal vs. Physical	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Offender lifestyle												
Drug addicted	.871***	.205	.297	.241	.392†	.231	-.093	.264	.005	.255	-.383	.279
Disinhibitors												
Affect during (Other)												
Aggression/anger					-1.286***	.289	-1.045**	.338	-.441	.323	-.469	.362
Sexual arousal					.792**	.231	.534†	273	.685**	.257	.425	.290
Alcohol before					1.010***	.210	.913***	.250	.700**	.232	.688**	.263
Porn before					-1.183**	.376	-1.248**	.410	-1.176**	.400	-1.227**	.425
Vulnerable victims												
Victim age (≥ 16)												
≤ 12 years									2.435***	.279	1.817***	.320
13 – 15 years									1.170***	.331	1.036**	.373
-2 Log Likelihood	22.879				155.670				269.515			
Model chi-square	18.804***				143.365***				233.998***			
Cox & Snell Pseudo R^2	.030				.209				.317			

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$

Note. Variable names were shortened due to space constraints; full variable names are available in-text and in Table 1; *B* = beta weights; SE = standard error.

Predictor	Block 4				Block 5			
	None/passive vs. Physical		Verbal vs. Physical		None/passive vs. Physical		Verbal vs. Physical	
	B	SE	*B*	SE	*B*	SE	*B*	SE
Offender lifestyle								
Drug addicted	-.024	.257	-.415	.281	-.063	.276	-.430	.290
Disinhibitors								
Affect during (Other)								
Aggression/anger	-.444	.323	-.474	.364	.078	.349	-.186	.375
Sexual arousal	.726**	.260	.469	.293	.530†	.291	.368	.312
Alcohol before	.543*	.241	.514†	.273	.370	.263	.421	.284
Porn before	-1.074**	.408	-1.118*	.433	-1.167**	.434	-1.268**	.445
Vulnerable victims								
Victim age (≥ 16)								
≤ 12 years	2.268***	.286	1.639***	.328	1.140**	.338	.869*	.372
13 – 15 years	1.137**	.334	1.005**	.377	.304	.391	.529	.411
Situational Impediments								
Time of crime	.604*	.242	.660*	.274	.605*	.264	.669*	.285
Offender MO								
Approach					1.450*	.573	.843	.642
Strategies (Violent)								
No strategy					1.068†	.583	.990	.647
Nonviolent					1.248*	.587	.774	.661
-2 Log Likelihood	385.404				521.524			
Model chi-square	241.745***				319.350***			
Cox & Snell Pseudo R^2	.326				.406			

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$

Note. Variable names were shortened due to space constraints; full variable names are available in-text and in Table 1; *B* = beta weights; SE = standard error.

The remaining variables from the parsimonious model did not maintain significance through to the final block (Block 5), but were influential at earlier stages. The offender's dominant affect was more likely to lead to little or no victim resistance when the offender

was sexually aroused (B = .726, p < .01), which remained significant through Block 4. Alternatively, the offender's affect led to a greater likelihood of physical resistance when the offender was aggressive or angry, compared to both no/passive resistance (B = -1.286, p < .001) and verbal resistance (B = -1.045, p < .001), but this effect was no longer significant upon addition of the third block. Furthermore, if the offender was under the effects of alcohol just prior to the crime, the victim was more likely to physically resist than not resist (B = .543, p < .05), although this did not maintain significance beyond Block 4. Finally, although only significant upon entrance within Block 1, a drug-addicted offender was more likely to elicit a physically reactive response from the victim, compared to a more passive response (B = .871, p < .001).

3.2. Discussion

The results of the sequential multinomial logistic regression analysis elicited some interesting relationships that affect the victim's level of resistance during a sexual assault. One key factor appears to be the offender's consumption of pornography prior to his crime – a factor that was shown to decrease the victim's likelihood of a physically resistant response. Pornography exposure, while somewhat contentious within the literature (Bensimon, 2007; Fisher, Kohut, Di Gioacchino, & Fedoroff, 2013), has generally supported a relationship between pornography use and sexual offending (Donnerstein & Berkowitz, 1981; Marshall, 1988; Seto, et al., 2001; Williams et al., 2009). Although this effect is usually presumed to require a predisposition to sexual deviance and offending, and may have a stronger disinhibiting effect over time (Bensimon, 2007), it can generally be supported that pornography increases the incidence of sexual assault within those predisposed to such behaviour. In combination with the current findings, this suggests that, while pornography use can increase the incidence of sexual assault, it does not produce the same degree of resistance from the victim as crimes that are not preceded by pornography consumption.

The reason for this is very likely related to the mindset or main priority of an offender who has viewed violent or otherwise deviant pornographic material. This is further supported by the significance of offender affect in the current model, which suggests that a sexually aroused offender will encounter significantly less victim resistance than other

emotions, especially anger. During his crime, such an offender will often have different crime priorities or motivations than more angry, sadistic, or opportunistic offenders (Knight, Warren, Reboussin, & Soley, 1998; Knight & Prentky, 1990). Typologies developed that differentiate various categories of rapists demonstrate a very different crime committed by those who are motivated by sex, with crimes driven by deviant sexual fantasies, which are often accompanied by cognitive distortions about sex and women (Knight et al., 1998; Knight & Prentky, 1990). These crimes are often much less likely to incorporate expressive violence and are among the least likely to result in sexual homicide, particularly compared to sadistic rapists and rage or anger rapists (Knight et al., 1998; Knight & Prentky, 1990).

Due to the greater degrees of violence in sadistic or anger-motivated crimes, one could reasonably expect a victim to be more likely to resist, especially physically, in the face of a greater threat to personal safety during these more physically violent crimes. Indeed, research does indicate a strong connection between offender violence and consequent physical victim resistance (Leclerc et al., 2010), and is particularly supported by the cyclical relationship between offender violence, physical victim resistance, and subsequent offender violence (Balemba et al., 2012). Even opportunistic rapes can be hypothesized to encounter more victim resistance due to the higher likelihood of such assaults occurring during the commission of another offense (Knight et al., 1998; Knight & Prentky, 1990). This is also true for typologies specific to offenses against children, with higher sexual fixation on children generally associated with a lower likelihood of violence and victim injury compared to exploitative, aggressive, and sadistic types (Knight, Carter, & Prentky, 1993). Thus, in line with Knight's typologies, the use of pornography prior to a crime is likely to accompany a more sex-oriented type of offense and sexual motivations and affect, which is likely to reduce victim resistance in comparison to other types of sexual assault offenses.

Another significant finding within the current analyses was that child victims were less likely to resist, especially physically, compared to adult and adolescent victims. In general, this could be related to previous findings that indicate a greater likelihood of violence, and increased degrees of violence, when a sexual assault is perpetrated against an adult (Balemba & Beauregard, 2012; Hunter, 2008; Scott & Beaman, 2004; Spohn, 1994; Weaver et al., 2004). Thus, as in the comparison between sexual offenders with more aggressive or sadistic motivations and those with sexual motivations, offenses that

incorporate more violence will more likely encourage resistance – particularly physical – from the victim due to the greater danger and fear experienced by the victim. Because offenders who choose child victims are less overall violent in these offenses, then, children would be expected to resist less frequently and at lower levels of forcefulness.

As well, prior research has indicated that young children (under the age of 12) are more likely to use nonforceful verbal resistance strategies than older children (adolescents) (Leclerc et al., 2010). While there is no difference in their use of physical or forceful verbal resistance strategies, these younger children will use more passive verbal strategies, such as reasoning with the offender or asking him to stop (Leclerc et al., 2010). This suggests that child victims, as a group, may be more likely to use less forceful, nonphysical resistance strategies when the abuse begins. While they may escalate their resistance strategies in the face of continued abuse, this initial decreased level of resistance may help to account for the current findings that indicated an overall lower likelihood of any physical or verbal resistance strategies.

Sexual crimes that occurred at night were also found to elicit physical victim resistance more often than daytime offenses. Part of this finding may be explainable due to the relationship between the time of day that crimes occur and the age of the victim, with adult victims more likely to be offended against at night and children during the day (Balemba & Beauregard, 2013). Due to the previous finding that children appear to be less likely to resist, the fact that daytime crimes provoke less resistance could be due to this relationship. Furthermore, when a victim is attacked at night, they can reasonably be expected to be on higher alert and more wary than the same person would be during the day. Indeed, fear of sexual crimes amongst college women has been found to be significantly higher at night than during the day (Fisher & Sloan, 2003; Hilinski, 2009; Pryor & Hughes, 2013). Such fear would increase the victim's "readiness" for an attack as well as her awareness of her surroundings and, thus, the likelihood of verbal or physical resistance in the face of a sexual assault that takes place at night.

The offender's approach and offending strategy were also relevant to the level of victim resistance in that a noncoercive approach and a nonviolent strategy were associated with little to no resistance from the victim. Comparatively, a coercive approach and a violent strategy were each more likely to prompt overt verbal or physical resistance.

This finding is consistent with previous research that demonstrates a relationship between violence used to commence a sexual assault and the greater likelihood of physical resistance by the victim (Balemba et al., 2012), as well as a general tendency for a victim's resistance strategies to match the offender's level of aggression (Ullman, 1998, 2007a; Ullman & Knight, 1992). Within the current findings, this was found to hold true for the offender's original commencement of the crime (approach) as well as how the crime progressed (strategies), which simply infers that the victim will tend to continue to match the offender's level of violence throughout the assault, from beginning to end.

This relationship is not only supported by previous literature, but also makes intuitive sense in terms of a person's instinctive reaction to match injurious violence with as much aggression as possible for reasons of self-preservation. While this reaction may be affected by the victim's physical capabilities, the specific situation, and the level of perceived threat, the North American legal standard of self-defence arises from the notion that a victim is expected – and entitled – to defend their personal safety in the face of violence from another person (*Criminal Code*, 1985). Thus, the fact that victims actually do incorporate more aggression into their resistance strategies when the offender commences his assault with more violence is not only expected, but may simply be the product of a natural human reaction.

Furthermore, specific to the offender's strategies is the aspect of the offender's level of organization, with the absence of strategies stimulating less victim resistance. While this aspect of the crime is distinct from the presence or absence of premeditation, it is indicative of either the amount of forethought by the offender or the offender's willingness or ability to maintain a feasible and effective plan during the assault. For this specific aspect of this variable, lacking specific strategies may have reduced the likelihood of victim resistance due to either an overall lower level of offender violence (which is supported by sex offender typologies that indicate greater organization often being associated with sadistic offender types; Knight et al., 1993; Knight et al., 1998; Knight & Prentky, 1990) or surprise on the part of the victim. If the offender behaves inconsistently or erratically throughout an assault, it may be much more difficult for the victim to accurately perceive the threat against her and react appropriately.

Although not maintaining significance to the final blocks, there were also relevant effects of drugs and alcohol on the type of victim resistance. Specifically, alcohol use prior to the crime and a drug-addicted offender increased the likelihood of physical resistance. The research is relatively clear on the effects of offender intoxication (whether through alcohol or drug use) in that it increases the likelihood of violence and victim injury (Brecklin & Ullman, 2010; Busch-Armendariz, DiNitto, Bell, & Bohman, 2010; Coker et al., 1998; Martin & Bachman, 1998; Testa, Vanzile-Tamsen, & Livingston, 2004; Ullman & Brecklin, 2000). When an offender is disinhibited, he will more likely lose control of his emotions and behaviour, thus increasing the actual and perceived danger to the victim and, therefore, the response to such behaviour.

While the literature generally refers to the disinhibiting effects of actual intoxication of the offender (rather than the overall lifestyle of an addict), the effects of a lifestyle of drug addiction appear to be closely related to the general relationship between intoxication and violence. According to the tripartite conceptual framework put forth by Goldstein (1985) and supported since (Faupel, 1988; Oser, Mooney, Staton-Tindall, & Leukefeld, 2009; Menard & Mihalic, 2001), there are three major types of violence perpetrated by long-term drug users: psychopharmacological violence, which is due to the direct intoxication effect; economic compulsive violence, which is violence used to obtain monetary rewards to fund expensive drug habits; and systematic violence, which occurs during drug sales and dealing. Interestingly, Menard and Mihalic (2001) only found support for the psychopharmacological effects of alcohol on violence, but not of other drugs, which is in line with the results herein. While Goldstein's (1985) model predicts a great deal of violence related to the drugs themselves, the overall increase in violence as part of the drug addict's lifestyle would suggest a higher degree of comfort with using violence and an increased willingness to resort to violence when deemed necessary. Thus, if a sexual assault victim experienced a rapid escalation of verbal or physical violence at the beginning of the crime that denoted a sense of familiarity with violent tactics, her fear would also escalate more quickly, more often leading to resistance.

3.3. Conclusion

Various different factors were found to affect the likelihood and type of victim resistance during a sexual assault. Some of the more influential findings determined that pornography use prior to the crime and assaults involving child victims led to less instances and degrees of victim resistance. However, an overall pattern seems to emerge in terms of the importance of the offender's mindset during the commission of his crime and how this affects the victim's response. As discussed previously within the current paper, pornography use is a major indicator of the offender's goals and expectations for the assault; however, who he chooses to assault as well as when and which specific assaultive strategies to employ are all indicative of the importance of the offender's state of mind.

Based on the current findings, a victim will be responsive to changes in mindset that manifest in specific offense choices. Thus, while not necessarily in their own best interest, victims will increase or decrease their resistance levels in response to certain cues or indicators of violence. While it is also generally true that particular types of victims (e.g., adults) in specific situations (e.g., attacks at night) will always be more likely to resist, when a victim takes note of an aggressive affect or a violent or coercive offending trajectory, resistance is likely to increase. This likelihood and level of victim resistance, among other factors, is expected to have an effect on subsequent offender violence and the final outcome of the sexual assault, which is the focus of the following studies.

Chapter 4. Results and Discussion – Study 2

Examining Interrelationships

4.1. Results

An examination of the bivariate correlation matrix reveals a multitude of relationships that appear to exist both between the various independent variables (see Table 3) as well as between independent and dependent variables (see Table 6). With respect to the relationships presented in Table 3, some of the highest correlations exist between the various MO variables as well as between these variables and victim age and victim resistance. The highest correlation can be found between the offender's strategies to commit the crime and the offender's approach to begin the crime (r = .842, $p < .001$), which is not surprising, given the temporal proximity of these variables as well as the close connection between the type of planning that an offender engages in and the way he begins his crime. Other notable relationships present in Table 3, some of which were discussed within Study 1 as well, include the correlations between: the offender's approach and victim age (r = .657, $p < .001$); offender approach and victim resistance (r = .603, $p < .001$); the strategies used by the offender and victim age (r = .598, $p < .001$); offender approach and the use of a weapon (r = .537, $p < .001$); whether an offender is addicted to drugs and drug use before the crime (r = .535, $p < .001$); offender strategies and victim resistance (r = .522, $p < .001$); and victim resistance and victim age (r = .522, $p < .001$).

Table 6. Bivariate correlation matrix between independent and dependent variables

Variables	DV1	DV2	DV3	DV4	DV5
1. Vic gender	-.079†	-.232**	-.189**	-.347**	.074†
2. Vic age	.450**	.588**	.510**	.178**	-.264**
3. Vic poor/dys	-.101*	-.055	.039	.009	.104**
4. Off affect	-.203**	-.236**	-.213**	-.064	.086*
5. Alcohol before	.300**	.348**	.296**	.092*	-.152**
6. Drug before	.194**	.218**	.190**	.015	-.060
7. Pornography before	-.121**	-.117**	-.121**	-.120**	.121**

Variables	DV1	DV2	DV3	DV4	DV5
8. Fantasies before	-.020	-.065	-.092*	-.110**	.074†
9. Time of crime	.242**	.260**	.242**	.076†	-.305**
10. Off-vic intimacy	-.376**	-.298**	-.236**	.092*	.248**
11. Marital status	-.058	.008	.028	.093*	.060
12. Employed	-.007	-.067	-.034	.048	.108**
13. Alcohol addicted	.117**	.149**	.086*	.033	-.057
14. Drug addicted	.178**	.204**	.134**	-.004	-.098*
15. Vic resistance	.454**	.558**	.633**	.129**	-.259**
16. Premeditation	-.054	-.051	-.031	-.014	.050
17. Approach	.552**	.719**	.611**	.173**	-.266**
18. Strategies	.476**	.636**	.584**	.121**	-.157**
19. Weapon	.503**	.503**	.371**	.059	-.154**
20. Crime length	.216**	.267**	.260**	.257**	.096*
DV1: Physical harm	1.00	.691**	.558**	.060	-.296**
DV2: Physical force		1.00	.723**	.188**	-.221**
DV3: Off reaction to resistance			1.00	.148**	-.141**
DV4: Penetration				1.00	.098*
DV5: Vic forced sexual acts					1.00

Note. Variable names were shortened due to space constraints; full variable names are available in-text and in Table 1.
† $p < .10$. *$p < .05$. **$p < .01$

With respect to the correlations between independent and dependent variables presented in Table 6, most interesting is the fact that all of the largest correlations are between these same MO variables, victim resistance, and victim age and, particularly, all of the violence outcome variables[7]. The largest of such correlations is between the offender's approach to commit the crime and the level of physical force (r = .719, $p < .001$). Other notable relationships between independent and dependent variables include correlations between: the offender's strategies used to commit his crime and the level of physical force (r = .636, $p < .001$); victim resistance and the offender's reaction to that resistance (r = .633, $p < .001$); offender approach and offender reaction to resistance (r = .611, $p < .001$); victim age and the level of physical force (r = .588, $p < .001$); offender strategies and offender reaction to victim resistance (r = .584, $p < .001$); victim resistance

7 This is likely partially a function of the fact that the level of violence dependent variables are trichotomous, while the sexual intrusiveness dependent variables are dichotomous and, thus, do not allow for as strong relationships to develop at this stage of analyses.

and level of physical force (r = .558, $p < .001$); offender approach and degree of physical harm (r = .552, $p < .001$); victim age and offender reaction to resistance (r = .510, $p < .001$); the use of a weapon and the degree of physical harm (r = .503, $p < .001$); and the use of a weapon and level of physical force (r = .503, $p < .001$).

Although not surprising, there are also relationships that exist between various outcome variables, with the most significant appearing between the outcome measures of violence. The most prominent is the correlation between the level of physical force and the offender's reaction to victim resistance (r = .723, $p < .001$). There are also notable relationships between the degree of physical harm inflicted and the level of physical force (r = .691, $p < .001$) as well as between the level of physical harm and the offender's reaction to victim resistance (r = .558, $p < .001$). This was not an unexpected finding, as a more violent outcome is, practically speaking, more likely to lead to injuries and a violent reaction in response to victim resistance can carry through to the end of an offense event (or perhaps even be the end of the event itself, in some cases).

Pearson *chi*-square tests of independence were analyzed to further determine if each of the independent variables were related to the dependent variables. As can be seen in Tables 7 and 8, all of the independent variables were significantly related to at least one of the dependent variables, thus supporting their inclusion within subsequent multivariate analyses. Similar to the results of the bivariate correlation matrix, the variables with the largest impact on the degree of violence dependent variables were type of approach (DV1: $\chi^2 = 208.63$, $p < .001$; DV2: $\chi^2 = 316.62$, $p < .001$; DV3: $\chi^2 = 237.38$, $p < .001$), the offender's strategies (DV1: $\chi^2 = 196.13$, $p < .001$; DV2: $\chi^2 = 283.84$, $p < .001$; DV3: $\chi^2 = 238.81$, $p < .001$), and the type of victim resistance (DV1: $\chi^2 = 167.46$, $p < .001$; DV2: $\chi^2 = 215.40$, $p < .001$; DV3: $\chi^2 = 314.65$, $p < .001$). Also significant and reflective of the bivariate correlations were the effects of victim age (DV1: $\chi^2 = 154.52$, $p < .001$; DV2: $\chi^2 = 226.59$, $p < .001$; DV3: $\chi^2 = 177.92$, $p < .001$), offender affect during the crime[8] (DV1: $\chi^2 = 145.91$, $p < .001$; DV2: $\chi^2 = 186.37$, $p < .001$; DV3: $\chi^2 = 132.45$, $p < .001$), and the use of a weapon (DV1: $\chi^2 = 156.50$, $p < .001$; DV2: $\chi^2 = 163.58$, $p < .001$; DV3: $\chi^2 = 85.77$, $p < .001$). While there were no *chi*-square relationships even approaching this strength within the examination of the sexual intrusiveness variables (see Table 8), significant

8 This was the only variable not represented among the highest bivariate correlational relationships to the dependent variables.

relationships did exist, the greatest of which being between victim gender and rape completion ($\chi^2 = 73.79$, $p < .001$) and between the time of the crime and forced victim participation ($\chi^2 = 57.03$, $p < .001$).

Table 7. Pearson *chi*-square analyses for degree of violence dependent variables

	DV1: Physical harm inflicted		DV2: Level of physical force		DV3: Offender reaction to victim resistance	
Variables	$\chi 2$	Φ	$\chi 2$	Φ	$\chi 2$	Φ
Victim characteristics						
Victim gender	16.401	.164***	39.518	.254***	21.803	.189***
Victim age	154.522	.502***	226.591	.608***	177.924	.539***
Victim background	11.721	.138**	3.570	.076	1.292	.046
Disinhibitors						
Affect during crime	145.911	.488***	186.369	.551***	132.454	.465***
Alcohol before crime	56.910	.305***	74.650	.349***	59.489	.312***
Drug before crime	23.928	.198***	29.328	.219***	23.031	.194***
Pornography before crime	9.749	.126**	9.538	.125**	10.494	.131**
Fantasies before crime	9.175	.122*	3.809	.079	13.521	.149**
Situational impediments						
Time of crime	36.412	.244***	45.950	.274***	39.766	.255***
Offender-victim intimacy	98.916	.402***	62.072	.318***	39.465	.254***
Offender lifestyle						
Marital status	7.015	.107*	2.227	.060	2.238	.060
Employed	.621	.032	3.394	.074	.718	.034
Addicted to alcohol	9.796	.126**	14.542	.154**	9.794	.126**
Addicted to drugs	20.408	.182***	26.158	.207***	16.755	.165***
Victim resistance						
Type of victim resistance	167.458	.523***	215.398	.593***	314.645	.716***
Offender Modus Operandi						
Premeditation	9.230	.123†	22.668	.192***	14.941	.156**
Type of approach	208.630	.583***	316.624	.719***	237.376	.622***
Strategies to commit crime	196.133	.566***	283.836	.680***	238.805	.624***
Use of a weapon	156.496	.505***	163.584	.517***	85.772	.374***
Length of crime	33.418	.233***	43.613	.267***	42.894	.265***

†$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$

Table 8. Pearson *chi*-square analyses for sexual intrusiveness dependent variables

	DV4: Rape completed		DV5: Victim forced to commit sexual acts	
Variables	χ^2	Φ	χ^2	Φ
Victim characteristics				
Victim gender	73.788	-.347***	3.395	.074†
Victim age	19.756	.180***	43.475	.266***
Victim background	.052	.009	6.688	.104*
Disinhibitors				
Affect during crime	2.905	.069	46.420	.275***
Alcohol before crime	5.237	.092*	14.111	-.152***
Drug before crime	.143	.015	2.215	-.060
Pornography before crime	8.813	-.120**	8.946	.121**
Fantasies before crime	7.377	-.110**	3.349	.074†
Situational impediments				
Time of crime	3.530	.076†	57.030	-.305***
Offender-victim intimacy	15.593	.159***	40.976	.259***
Offender lifestyle				
Marital status	5.356	.093*	2.179	.060
Employed	1.415	.048	7.132	.108**
Addicted to alcohol	.667	.033	1.987	-.057
Addicted to drugs	.008	-.004	5.844	-.098*
Victim resistance				
Type of victim resistance	14.662	.155**	47.919	.280***
Offender *Modus Operandi*				
Premeditation	.145	.015	1.591	.051
Type of approach	18.423	.173***	43.525	-.266***
Strategies to commit crime	13.983	.151**	39.812	.255***
Use of a weapon	2.155	.059	14.495	-.154***
Length of crime	40.475	.257***	5.678	.096*

† $p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$

The multivariate analyses began with the preliminary sequential logistic regression models and subsequent parsimonious models (see Tables 9 through 18). As discussed previously, multinomial logistic regressions were used for the degree of violence variables, while binomial logistic regressions were used for the sexual intrusiveness variables. These logistic regression models were developed to determine which combination of independent variables best predicted each dependent variable. For each of the five dependent variables, those independent variables that significantly contributed to the model ($p < .05$) within at least one block were maintained for the parsimonious model.

4.1.1. DV1: Physical harm inflicted on victim

The preliminary model for the first dependent variable, degree of physical harm inflicted on the victim, is presented in Table 9 and the parsimonious model is presented in Table 10. For this latter model, twelve independent variables provided significant ($p < .05$) additions to the explained variance of the model: drug addicted; affect during the crime; alcohol before crime; victim gender; victim age; victim background; offender-victim intimacy; premeditation; approach to commit the crime; use of a weapon; length of the crime; and type of victim resistance. The model was significant at all blocks, according to the -2 LL (-2 Log Likelihood) and related *chi*-square statistic values at each block, which also indicate an increasingly significant difference from an intercept-only model with the addition of each successive block. Furthermore, the goodness-of-fit – as calculated by Cox and Snell Pseudo R^2 – increased with each subsequent block addition from .032 in Block 1, to .257 in Block 2, to .345 in Block 3, to .402 in Block 4, to .482 in Block 5, to .507 in Block 6.

Table 9. **Preliminary sequential multinomial logistic regression model for physical harm inflicted on victim (DV1)**

Predictor	Block 1				Block 2				Block 3			
	Physical Injury vs. None		Death vs. None		Physical Injury vs. None		Death vs. None		Physical Injury vs. None		Death vs. None	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Offender lifestyle												
Marital status	-.235	.205	.581*	.292	-.088	.232	.680*	.318	-.120	.243	.568†	.341
Employed	.042	.204	-.200	.254	-.088	.229	-.090	.280	.019	.240	-.152	.301
Alcohol addicted	-.322	.216	-.335	.271	.108	.260	.415	.315	.045	.272	.240	.334
Drug addicted	-.614**	.227	-.811**	.275	-.125	.293	-.212	.351	.067	.311	-.065	.374
Disinhibitors												
Affect during (Other)												
Aggression/anger					2.071***	.296	1.324***	.339	1.555***	.316	.810*	.366
Sexual arousal					-.471†	.264	-1.721***	.394	-.328	.276	-1.520***	.415
Alcohol before					-.667**	.255	-1.405***	.326	-.437	.267	-1.201**	.350
Drug before					-.363	.293	-.520	.350	-.244	.310	-.408	.371
Porn before					.354	.370	.978†	.535	.205	.386	1.059†	.587
Fantasies before					.378	.267	-.637*	.308	.290	.279	-.636†	.329
Vulnerable victims												
Victim gender									.284	.385	-1.334**	.422
Victim age (≥ 16)												
≤ 12 years									-1.328***	.282	-2.161***	.422
13 – 15 years									-1.457***	.398	-1.526**	.507
Victim background									-.154	.243	.981**	.352
-2 Log Likelihood	130.283				576.623				711.676			
Model chi-square	30.524***				207.260***				276.976***			
Cox & Snell Pseudo R^2	.049				.287				.364			

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$

Note. Variable names were shortened due to space constraints; full variable names are available in-text and in Table 1; *B* = beta weights; SE = standard error.

Predictor	Block 4				Block 5				Block 6			
	Physical Injury vs. None		Death vs. None		Physical Injury vs. None		Death vs. None		Physical Injury vs. None		Death vs. None	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Offender lifestyle												
Marital status	-.136	.246	.510	.363	-.068	.265	.739†	.403	-.033	.276	.791†	.418
Employed	-.037	.244	-.274	.320	-.034	.265	-.387	.359	-.062	.272	-.402	.374
Alcohol addicted	.046	.276	.219	.352	-.042	.306	.164	.414	-.121	.312	.116	.435
Drug addicted	.029	.318	-.103	.398	-.011	.336	-.060	.443	-.050	.339	-.125	.460
Disinhibitors												
Affect during (Other)												
Aggression/anger	1.547***	.319	.843	.382	1.227***	.347	.316	.433	1.142**	.356	.197	.449
Sexual arousal	-.300	.279	-1.724***	.433	-.086	.303	-1.290**	.482	-.045	.311	-1.236*	.508
Alcohol before	-.420	.279	-1.176**	.390	-.308	.307	-.999*	.437	-.302	.312	-.978*	.459
Drug before	-.271	.317	-.406	.394	-.182	.335	-.358	.436	-.145	.340	-.321	.452
Porn before	.213	.393	.755	.627	.263	.436	.955	.715	-.006	.445	.673	.770
Fantasies before	.406	.287	-.482	.352	.448	.326	-.643	.437	.472	.338	-.719	.458
Vulnerable victims												
Victim gender	.197	.394	-.835†	.451	-.271	.441	-1.652**	.568	-.360	.455	-1.807**	.604
Victim age (≥ 16)												
≤ 12 years	-1.246***	.316	-.959*	.478	-.257	.378	-.167	.553	.066	.402	.180	.586
13 – 15 years	-1.371**	.402	-1.184*	.533	-.686	.434	-.869	.599	-.572	.448	-.667	.622
Victim background	-.218	.248	.815*	.368	-.135	.268	.760†	.404	-.054	.274	.845*	.418
Situational Impediments												
Time of crime	-.030	.261	-.218	.361	-.049	.289	-.152	.403	.086	.299	.021	.426
Off-victim intimacy (Stranger)												
Known/friend	-.838*	.341	-.624†	.354	-.570	.358	-.290	.395	-.560	.367	-.266	.416
Family/partner	-.541	.342	-3.418***	.672	-.277	.364	-3.115***	.711	-.325	.373	-3.088***	.724

Predictor	Block 4				Block 5				Block 6			
	Physical Injury vs. None		Death vs. None		Physical Injury vs. None		Death vs. None		Physical Injury vs. None		Death vs. None	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Offender MO												
Premeditation (Structured)												
None					.565	.354	1.150*	.518	.537	.366	1.164*	.543
Unstructured					-.252	.331	.214	.449	-.309	.345	.182	.474
Approach					-.638	.673	-3.036**	.924	-.503	.683	-2.933**	1.009
Strategies (Violent)												
No strategy					-.931	.681	.789	.913	-.630	.690	1.146	1.022
Nonviolent					-1.325†	.689	1.157	.849	-1.101	.693	1.099	.893
Weapon					-.581†	.310	-1.510***	.391	-.798*	.324	-1.726***	.410
Length of crime					-.780**	.289	-1.136**	.407	-.886**	.298	-1.247**	.424
Victim Resistance												
Type of resistance (Physical)												
None/passive									-1.190**	.349	-1.214*	.482
Verbal									-1.349***	.372	-2.594***	.647
-2 Log Likelihood	739.302				675.464				647.995			
Model chi-square	329.831***				426.569***				456.236***			
Cox & Snell Pseudo R^2	.416				.501				.525			

† $p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$

Note. Variable names were shortened due to space constraints; full variable names are available in-text and in Table 1; *B* = beta weights; SE = standard error.

Table 10. Parsimonious sequential multinomial logistic regression model for physical harm inflicted on victim (DV1)

Predictor	Block 1				Block 2				Block 3			
	Physical Injury vs. None		Death vs. None		Physical Injury vs. None		Death vs. None		Physical Injury vs. None		Death vs. None	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Offender lifestyle												
Drug addicted	-.713**	.211	-.951***	.255	-.280	.241	-.411	.281	-.027	.257	-.262	.303
Disinhibitors												
Affect during (Other)												
Aggression/anger					2.062***	.293	1.431***	.330	1.538***	.312	.913*	.359
Sexual arousal					-.551*	.256	-1.545***	.376	-.387	.267	-1.387***	.397
Alcohol before					-.721**	.225	-1.290***	.289	-.472*	.239	-1.111***	.312
Vulnerable victims												
Victim gender									.343	.375	-1.411**	.411
Victim age (≥ 16)												
≤ 12 years									-1.360***	.276	-2.143***	.409
13 – 15 years									-1.454***	.396	-1.463**	.491
Victim background									-.174	.239	1.032**	.343
-2 Log Likelihood	22.190				94.684				323.183			
Model chi-square	19.925***				182.023***				259.299***			
Cox & Snell Pseudo R^2	.032				.257				.345			

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$

Note. Variable names were shortened due to space constraints; full variable names are available in-text and in Table 1; *B* = beta weights; SE = standard error.

Predictor	Block 4				Block 5				Block 6			
	Physical Injury vs. None		Death vs. None		Physical Injury vs. None		Death vs. None		Physical Injury vs. None		Death vs. None	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Offender lifestyle												
Drug addicted	-.054	.259	-.216	.322	-.089	.278	-.175	.356	-.133	.287	-.246	.372
Disinhibitors												
Affect during (Other)												
Aggression/anger	1.527***	.315	.945*	.373	1.185***	.340	.402	.414	1.107**	.349	.305	.430
Sexual arousal	-.379	.269	-1.580***	.412	-.178	.292	-1.180**	.452	-.134	.300	-1.079*	.470
Alcohol before	-.474*	.240	-1.196***	.333	-.337	.261	-1.056**	.373	-.322	.267	-.990*	.388
Vulnerable victims												
Victim gender	.288	.383	-.896*	.435	-.182	.423	-1.653**	.557	-.312	.433	-1.847**	.596
Victim age (≥ 16)												
≤ 12 years	-1.297***	.305	-.940*	.459	-.312	.361	-.091	.529	.091	.387	.288	.562
13 – 15 years	-1.364***	.399	-1.167**	.515	-.785†	.427	-.648	.551	-.613	.444	-.477	.582
Victim background	-.228	.243	.787*	.357	-.143	.261	.746†	.386	-.043	.267	.846*	.398
Situational Impediments												
Off-victim intimacy (Stranger)												
Known/friend	-.761*	.332	-.641†	.344	-.518	.346	-.334	.377	-.538	.355	-.366	.395
Family/partner	-.471	.330	-3.500***	.667	-.279	.350	-3.192***	.694	-.288	.359	-3.177***	.703

Predictor	Block 4				Block 5				Block 6			
	Physical Injury vs. None		Death vs. None		Physical Injury vs. None		Death vs. None		Physical Injury vs. None		Death vs. None	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Offender MO												
Premeditation (Structured)												
None					.739*	.327	.881†	.450	.706*	.336	.842†	.470
Unstructured					-.080	.315	.083	.417	-.150	.324	.000	.437
Approach					-1.648***	.338	-2.020**	.601	-1.257**	.365	-1.803**	.639
Weapon					-.600*	.303	-1.424***	.372	-.806*	.318	-1.617***	.391
Length of crime					-.756**	.283	-1.121**	.389	-.847**	.292	-1.245**	.406
Victim Resistance												
Type of resistance (Physical)												
None/passive									-1.245***	.343	-1.203**	.456
Verbal									-1.361***	.361	-2.488***	.623
-2 Log Likelihood	458.308				633.891				637.143			
Model chi-square	314.880***				402.667***				433.628***			
Cox & Snell Pseudo R^2	.402				.482				.507			

† $p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$

Note. Variable names were shortened due to space constraints; full variable names are available in-text and in Table 1; *B* = beta weights; SE = standard error.

The variable that had the largest impact on the level of physical harm inflicted on the victim was the level of offender-victim intimacy. The results indicate that an offender was far less likely to kill their victim when the victim was a family member or a partner compared to when assaulting a stranger (B = -3.177, p < .001). Victim resistance was the next most important variable to the final model, with physical resistance resulting in a greater likelihood of death compared to verbal resistance (B = -2.488, p < .001) and no/passive resistance (B = -1.203, p < .01). Physical resistance also resulted in a greater likelihood of injury compared to verbal resistance (B = -1.361, p < .001) and no/passive resistance (B = -1.245, p < .001). The presence of a weapon also significantly increased the likelihood of death (B = -1.617, p < .001) and, to a lesser extent, injury (B = -.806, p < .05). Furthermore, a male victim was more likely to be killed (B = -1.847, p < .01), longer crimes were more likely to result in death (B = -1.245, p < .01) and victim injury (B = -.847, p < .01), and a coercive approach by the offender was more likely to lead to both death (B = -1.803, p < .01) and injury (B = -1.257, p < .01). Interestingly, an aggressive or angry affect was more likely to lead to victim injury (B = 1.107, p < .01), but, if sexual arousal was the dominant affect, this was the situation where death was least likely (B = -1.079, p < .05), although these relationships were stronger within earlier blocks of the model. As well, an offender who had not premeditated his crime was more likely to physically injure (B = .706, p < .05) and potentially kill (B = .842, p < .10) his victim compared to offenders whose crimes contained elements of structured premeditation.

While not maintaining significance after the addition of the fifth and sixth blocks, victim age was also an important factor within the beginning stages of the model. Within block four, this variable was showing a significant increase in the likelihood of physical injury for adult victims (over the age of 16) compared to children (B = -1.297, p < .001) and adolescents (B = -1.364, p < .001). As well, the likelihood of death was higher in adults compared to both children (B = -.940, p < .05) and, even more so, adolescents (B = -1.167, p < .01). Furthermore, the consumption of alcohol before the crime served as an aggravating factor, increasing the likelihood of death (B = -.990, p < .05). This effect was stronger before the addition of Blocks five and six (B = -1.196, p < .001), and included a similarly aggravating effect on injury at this point in the model as well, but to a lesser degree (B = -.474, p < .05). A victim's criminogenic background displayed some interesting interaction effects with various block additions, serving as a significant protective factor

from death in Block 4 (B = .787, p < .05), losing this significance with the addition of Block 5, but regaining significance in Block 6 (B = .846, p < .05). Finally, while a drug addicted lifestyle did serve to increase the likelihood of physical injury (B = -.713, p < .001) and victim death (B = -.951, p < .001), this was only a significant factor in the first block, losing all semblance of significance for the remainder of the model.

4.1.2. DV2: Level of physical force

The preliminary model for the second dependent variable, the level of physical force used against the victim, can be found in Table 11, and the parsimonious model in Table 12. For this DV, ten independent variables provided significant (p < .05) additions to the final model: drug addicted; affect during the crime; alcohol before crime; victim age; offender-victim intimacy; premeditation; approach to commit the crime; use of a weapon; length of the crime; and type of victim resistance. The model was significant at all blocks, according to the -2 LL and *chi*-square values. Furthermore, the Cox and Snell Pseudo R^2 indicated that the goodness-of-fit increased with each subsequent block addition from .042 in Block 1, to .325 in Block 2, to .429 in Block 3, to .438 in Block 4, to .570 in Block 5, to .593 in Block 6.

The variable that had the largest impact on any part of the model was the type of approach that the offender utilized. The largest effect differentiated no physical force from more force than necessary to commit the crime, with a noncoercive approach resulting in a much greater likelihood of less force (B = 3.436, p < .001).[1] This approach also demonstrated an increased likelihood of minimal force as compared to more force than necessary (B = .723, p < .05).

1 DV2 was examined from a different perspective than the first DV, with the multinomial logistic regression comparing the two “less violent” outcomes with the most violent, as compared to DV1, in which the two “more violent” outcomes were compared to the least violent. This makes the relevant B values that are presented of opposite signs, despite suggesting similar relationships.

Table 11. Preliminary sequential multinomial logistic regression model for level of physical force (DV2)

Predictor	Block 1				Block 2				Block 3			
	None vs. More than necessary		Minimal vs. More than necessary		None vs. More than necessary		Minimal vs. More than necessary		None vs. More than necessary		Minimal vs. More than necessary	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Offender lifestyle												
Marital status	.129	.214	-.218	.212	.034	.260	-.289	.238	.092	.292	-.146	.252
Employed	-.187	.203	.104	.209	-.330	.248	-.058	.234	-.273	.279	.032	.247
Alcohol addicted	.425†	.221	.391	.222	-.318	.288	-.030	.263	-.203	.325	.078	.274
Drug addicted	.940***	.241	.516*	.232	.214	.341	.156	.299	-.212	.392	-.018	.316
Disinhibitors												
Affect during (Other)												
Aggression/anger					-2.851***	.545	-1.816***	.315	-1.887**	.586	-1.436***	.329
Sexual arousal					1.396***	.269	.635*	.264	1.344***	.302	.564	.276
Alcohol before					1.427***	.280	.719**	.255	1.104***	.316	.557*	.266
Drug before					.573†	.344	.281	.298	.429	.392	.177	.312
Porn before					-.543	.379	-.573	.368	-.307	.421	-.520	.395
Fantasies before					.182	.271	.312	.263	.472	.307	.370	.277
Vulnerable victims												
Victim gender									-.181	.361	.621	.367
Victim age (≥ 16)												
≤ 12 years									3.069***	.367	1.433***	.287
13 – 15 years									2.266***	.442	1.212**	.362
Victim background									-.205	.282	.194	.253
-2 Log Likelihood	135.168				644.432				829.262			
Model chi-square	35.519***				253.783***				364.517***			
Cox & Snell Pseudo R^2	.056				.339				.448			

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$

Note. Variable names were shortened due to space constraints; full variable names are available in-text and in Table 1; *B* = beta weights; SE = standard error.

Predictor	Block 4				Block 5				Block 6			
	None vs. More than necessary		Minimal vs. More than necessary		None vs. More than necessary		Minimal vs. More than necessary		None vs. More than necessary		Minimal vs. More than necessary	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Offender lifestyle												
Marital status	.159	.297	-.110	.255	-.091	.354	-.152	.272	-.115	.368	-.178	.285
Employed	-.203	.284	.102	.252	-.256	.340	.128	.272	-.254	.353	.131	.283
Alcohol addicted	-.195	.329	.106	.277	.003	.403	.202	.308	.054	.414	.275	.318
Drug addicted	-.189	.397	-.035	.321	-.168	.472	-.044	.338	-.109	.488	-.033	.343
Disinhibitors												
Affect during (Other)												
Aggression/anger	-1.888**	.587	-1.461***	.332	-.548	.747	-1.165**	.351	-.484	.770	-1.129**	.362
Sexual arousal	1.341***	.305	.595*	.280	1.124**	.367	.453	.304	1.059**	.380	.413	.316
Alcohol before	1.040**	.326	.448	.277	.726†	.394	.358	.304	.746†	.406	.353	.311
Drug before	.464	.395	.196	.317	.272	.469	.185	.333	.206	.483	.148	.339
Porn before	-.212	.430	-.376	.405	-.359	.521	-.480	.445	-.089	.536	-.244	.462
Fantasies before	.370	.313	.315	.283	.312	.397	.324	.325	.298	.413	.336	.341
Vulnerable victims												
Victim gender	-.261	.376	.559	.380	.366	.479	.804†	.428	.484	.502	.876†	.451
Victim age (≥ 16)												
≤ 12 years	2.807***	.398	1.109**	.320	1.271*	.521	.599	.367	.725	.557	.311	.393
13 – 15 years	2.182***	.448	1.115**	.368	1.135*	.559	.761†	.397	.884	.589	.666	.413
Victim background	-.094	.287	.252	.259	-.200	.349	.214	.279	-.212	.363	.163	.286
Situational Impediments												
Time of crime	-.012	.302	.361	.266	.090	.372	.365	.292	-.121	.388	.209	.307
Off-victim intimacy (Stranger)												
Known/friend	.787†	.445	.227	.322	-.085	.573	.059	.338	-.105	.597	.018	.352
Family/partner	1.046*	.457	.563†	.338	-.201	.592	.294	.365	-.239	.617	.250	.377

Predictor	Block 4				Block 5				Block 6			
	None vs. More than necessary		Minimal vs. More than necessary		None vs. More than necessary		Minimal vs. More than necessary		None vs. More than necessary		Minimal vs. More than necessary	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Offender MO												
Premeditation (Structured)												
None					-.606	.455	-.491	.357	-.607	.473	-.438	.374
Unstructured					1.120**	.421	.151	.333	1.279**	.443	.250	.353
Approach					3.742***	.932	1.322*	.616	3.636***	.984	1.090	.664
Strategies (Violent)												
No strategy					.692	.924	.067	.648	.125	.967	-.130	.693
Nonviolent					.038	.926	-.365	.631	-.465	.975	-.440	.674
Weapon					1.616*	.766	.724*	.297	1.704*	.784	.919**	.315
Length of crime					1.066**	.360	.649*	.296	1.217**	.375	.742*	.307
Victim Resistance												
Type of resistance (Physical)												
None/passive									2.445***	.532	1.240***	.342
Verbal									2.452***	.580	1.392***	.369
-2 Log Likelihood		906.107				802.865				772.177		
Model chi-square		374.269***				534.319***				567.205***		
Cox & Snell Pseudo R^2		.457				.582				.604		

† $p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$

Note. Variable names were shortened due to space constraints; full variable names are available in-text and in Table 1; *B* = beta weights; SE = standard error.

Table 12. Parsimonious sequential multinomial logistic regression model for level of physical force (DV2)

Predictor	Block 1				Block 2				Block 3			
	None vs. More than necessary		Minimal vs. More than necessary		None vs. More than necessary		Minimal vs. More than necessary		None vs. More than necessary		Minimal vs. More than necessary	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Offender lifestyle												
Drug addicted	1.099***	.227	.661**	.217	.460†	.272	.334	.243	.023	.311	.110	.256
Disinhibitors												
Affect during (Other)												
Aggression/anger					-2.870***	.543	-1.847***	.313	-1.940**	.582	-1.453***	.326
Sexual arousal					1.342***	.257	.581*	.253	1.242***	.288	.509†	.266
Alcohol before					1.443***	.248	.730**	.227	1.113***	.276	.572*	.238
Vulnerable victims												
Victim age (≥ 16)												
≤ 12 years									3.109***	.354	1.338***	.273
13 – 15 years									2.293***	.424	1.076**	.349
-2 Log Likelihood	23.026				94.734				189.048			
Model chi-square	26.218***				241.029***				343.081***			
Cox & Snell Pseudo R^2	.042				.325				.429			

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$

Note. Variable names were shortened due to space constraints; full variable names are available in-text and in Table 1; *B* = beta weights; SE = standard error.

Predictor	Block 4				Block 5				Block 6			
	None vs. More than necessary		Minimal vs. More than necessary		None vs. More than necessary		Minimal vs. More than necessary		None vs. More than necessary		Minimal vs. More than necessary	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Offender lifestyle												
Drug addicted	.029	.314	.119	.259	.017	.377	.115	.274	.079	.393	.134	.285
Disinhibitors												
Affect during (Other)												
Aggression/anger	-1.940**	.582	-1.484***	.329	-.655	.730	-1.224***	.345	-.583	.750	-1.206**	.356
Sexual arousal	1.238***	.291	.527*	.268	1.073**	.349	.417	.289	.989**	.362	.358	.300
Alcohol before	1.082***	.279	.576*	.240	.789*	.338	.518*	.260	.762*	.349	.497†	.268
Vulnerable victims												
Victim age (≥ 16)												
≤ 12 years	2.858***	.376	1.050***	.297	1.217*	.487	.531	.336	.620	.521	.179	.363
13 – 15 years	2.192***	.431	1.019**	.355	1.032†	.536	.634†	.383	.698	.568	.515	.402
Situational Impediments												
Off-victim intimacy (Stranger)												
Known/friend	.875*	.429	.158	.312	-.042	.550	-.032	.324	-.072	.575	-.065	.337
Family/partner	1.026*	.430	.709*	.319	-.067	.564	.448	.342	-.151	.591	.376	.356
Offender MO												
Premeditation (Structured)												
None					-.516	.418	-.402	.324	-.471	.432	-.326	.336
Unstructured					1.180**	.403	.192	.316	1.392**	.420	.332	.329
Approach					3.984***	.506	1.068**	.331	3.436***	.540	.723*	.360
Weapon					1.637*	.749	.752**	.287	1.673*	.762	.932**	.304
Length of crime					1.108**	.343	.620*	.283	1.236**	.356	.678*	.292

Predictor	Block 4				Block 5				Block 6			
	None vs. More than necessary		Minimal vs. More than necessary		None vs. More than necessary		Minimal vs. More than necessary		None vs. More than necessary		Minimal vs. More than necessary	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Victim Resistance												
Type of resistance (Physical)												
None/passive									2.335***	.508	1.208***	.329
Verbal									2.487***	.559	1.420***	.356
-2 Log Likelihood	361.046				638.308				681.515			
Model chi-square	353.647***				516.827***				551.387***			
Cox & Snell Pseudo R^2	.438				.570				.593			

† $p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$

Note. Variable names were shortened due to space constraints; full variable names are available in-text and in Table 1; *B* = beta weights; SE = standard error.

Another variable that had one of the most significant impacts on the overall model was the level of victim resistance, with no force being much more likely than the highest degree of force when both none/passive (B = 2.335, p < .001) or verbal (B = 2.487, p < .001) resistance strategies were employed. This was also the case for minimal force as compared to a greater level of force (none/passive: B = 1.208, p < .001; verbal: B = 1.420, p < .001), thus suggesting that the most force from the offender would result from physical victim resistance.

Furthermore, unstructured premeditation was found to be more likely to lead to no force than structured premeditation (B = 1.392, p < .01) and a shorter crime was more likely to result in no force (B = 1.236, p < .01) or, to a lesser degree, minimal force (B = .678, p < .05). Interestingly, the offender's affect during the crime more often led to a non-forceful assault if sexual arousal was the primary affect (B = .989, p < .01) versus a very forceful assault if anger was the primary affect (B = -1.206, p < .01). There was also a greater likelihood of no force if alcohol was not used by the offender before the crime (B = .762, p < .05), thus suggesting that alcohol may aggravate an already coercive situation.

Although not retaining significance through to the final block, within Block 4, the victim's age significantly affected the level of force used by the offender. Children under 12 years old (B = 2.858, p < .001) and adolescents 13-15 (B = 2.192, p < .001) were both much more likely to encounter no force. Though to a somewhat lesser extent, this relationship also held true for minimal force as compared to more force than necessary (children: B = 1.050, p < .001; adolescents: B = 1.019, p < .01). Thus, adults 16 and older were most at risk of subjection to more force than necessary. Similarly, the offender-victim relationship only attained significance within the first block in which this variable was entered (Block 4), becoming nonsignificant thereafter. However, within this block, if the victim was a family member/partner (B = 1.026, p < .05) or a friend (B = .875, p < .05), there was a greater likelihood of no physical force within the assault compared to stranger assaults. There was also a higher chance of minimal force, as opposed to more than necessary, when the victim was a family member (B = .709, p < .05), compared to a stranger victim. Finally, reminiscent of the model for DV1, a non-addict lifestyle was related to the offender committing an offense with no force (B = 1.099, p < .001) or, to a lesser

extent, one with minimal force (B = .661, p < .01). However, as with the model for the first DV, this relationship did not maintain significance beyond the first block.

4.1.3. DV3: Offender reaction to victim resistance

The preliminary model for the third dependent variable, the offender's reaction to victim resistance, is shown in Table 13, and the parsimonious model in Table 14. Within the model for this DV, ten independent variables provided significant (p < .05) additions to the explained variance of the model: drug addicted; affect during the crime; alcohol before crime; drug before crime; fantasies before crime; victim age; offender approach to commit the crime; strategies to commit the crime; length of the crime; and type of victim resistance. The -2 LL and *chi*-square values indicate that the model was significant at all blocks. Furthermore, the Cox and Snell Pseudo R^2 indicated that the goodness-of-fit increased with each subsequent block addition from .027 in Block 1, to .255 in Block 2, to .338 in Block 3, to .439 in Block 4, to .534 in Block 5.[2]

Not surprisingly, the most influential variable on the offender's reaction to victim resistance was the type of resistance by the victim. Compared to instances of physical resistance, no resistance or passive resistance was most likely to lead to a noncoercive response (B = 2.736, p < .001) or, to a lesser extent, verbal coercion (B = 2.183, p < .001). Relatedly, verbal resistance was most likely to lead to verbal coercion (B = 2.875, p < .001), but was also very likely to lead to no coercion in response (B = 2.093, p < .001). Thus, the offender's response seems to mirror the victim's level of resistance to some extent.

2 There were only five blocks in the parsimonious model for DV3 due to the absence of significance for any of the situational impediment variables.

Table 13. Preliminary sequential multinomial logistic regression model for offender reaction to victim resistance (DV3)

Predictor	Block 1				Block 2				Block 3			
	Noncoercive vs. Physical coercion		Verbal vs. Physical coercion		Noncoercive vs. Physical coercion		Verbal vs. Physical coercion		Noncoercive vs. Physical coercion		Verbal vs. Physical coercion	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Offender lifestyle												
Marital status	.170	.195	-.191	.250	.047	.226	-.327	.274	.137	.246	-.189	.287
Employed	-.067	.188	.051	.248	-.147	.217	-.032	.269	.031	.237	.101	.281
Alcohol addicted	.208	.200	.529†	.277	-.405	.249	.046	.320	-.310	.269	.136	.329
Drug addicted	.592**	.210	.731*	.299	-.067	.282	.345	.374	-.397	.308	.148	.386
Disinhibitors												
Affect during (Other)												
Aggression/anger					-1.586***	.289	-1.490***	.409	-.827**	.320	-1.033*	.428
Sexual arousal					1.026***	.248	.937**	.301	.953***	.270	.877**	.313
Alcohol before					1.115***	.242	.837**	.304	.823**	.262	.671*	.313
Drug before					.600*	.285	.147	.358	.425	.307	.036	.368
Porn before					-.574	.353	-.380	.417	-.489	.384	-.333	.435
Fantasies before					-.271	.249	-.739*	.293	-.108	.269	-.701*	.304
Victim characteristics												
Victim gender									-.198	.336	.355	.407
Victim age (≥ 16)												
≤ 12 years									2.186***	.285	1.474***	.340
13 – 15 years									1.408**	.348	1.021*	.414
Victim background									.447†	.243	.146	.285
-2 Log Likelihood	126.233				670.174				842.038			
Model chi-square	22.842**				189.342***				265.705***			
Cox & Snell Pseudo R^2	.037				.266				.352			

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$

Note. Variable names were shortened due to space constraints; full variable names are available in-text and in Table 1; *B* = beta weights; SE = standard error.

Predictor	Block 4				Block 5				Block 6			
	Noncoercive vs. Physical coercion		Verbal vs. Physical coercion		Noncoercive vs. Physical coercion		Verbal vs. Physical coercion		Noncoercive vs. Physical coercion		Verbal vs. Physical coercion	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Offender Lifestyle												
Marital status	.146	.248	-.160	.289	-.029	.275	-.208	.301	.035	.312	-.314	.341
Employed	.056	.239	.142	.284	.078	.269	.232	.300	.068	.305	.360	.338
Alcohol addicted	-.307	.270	.147	.331	-.232	.310	.017	.353	-.195	.342	.135	.388
Drug addicted	-.388	.311	.164	.390	-.333	.340	.237	.401	-.303	.374	.337	.434
Disinhibitors												
Affect during (Other)												
Aggression/anger	-.838**	.320	-1.055*	.430	-.343	.358	-1.087*	.457	-.412	.409	-1.034*	.497
Sexual arousal	.949***	.272	.885**	.315	.761*	.314	.755*	.337	.679†	.359	.747†	.383
Alcohol before	.776**	.271	.619†	.324	.585†	.310	.580†	.343	.528	.341	.471	.373
Drug before	.421	.309	.028	.370	.323	.337	-.039	.378	.342	.373	-.020	.411
Porn before	-.432	.391	.242	.443	-.673	.438	-.312	.476	-.192	.489	.211	.527
Fantasies before	-.171	.275	-.775*	.313	-.327	.317	-.707*	.340	-.512	.368	-.922*	.391
Victim characteristics												
Victim gender	-.206	.347	.303	.422	.239	.403	.684	.455	.459	.469	.813	.521
Victim age (≥ 16)												
≤ 12 years	2.021***	.317	1.227**	.379	.897*	.379	.695†	.421	.400	.446	.347	.489
13 – 15 years	1.360***	.351	.934*	.422	.555	.402	.483	.455	.516	.466	.458	.515
Victim background	.503*	.247	.195	.289	.496†	.282	.216	.309	.468	.315	.217	.341
Situational Impediments												
Time of crime	.123	.255	.160	.305	.243	.292	.139	.326	-.072	.341	-.154	.374
Off-victim intimacy (Stranger)												
Known/friend	.376	.323	.293	.399	.077	.349	.123	.414	.133	.398	.292	.464
Family/partner	.452	.341	.542	.412	-.176	.384	.339	.436	-.199	.440	.327	.496

Predictor	Block 4				Block 5				Block 6			
	Noncoercive vs. Physical coercion		Verbal vs. Physical coercion		Noncoercive vs. Physical coercion		Verbal vs. Physical coercion		Noncoercive vs. Physical coercion		Verbal vs. Physical coercion	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Offender MO												
Premeditation (Structured)												
None					-.344	.367	-.740†	.406	-.365	.424	-.678	.458
Unstructured					.479	.329	.217	.352	.749†	.385	.393	.406
Approach					1.626**	.607	1.763*	.787	.999	.700	1.237	.851
Strategies (Violent)												
No strategy					1.783**	.632	.408	.818	1.527*	.738	.102	.888
Nonviolent					.698	.617	.086	.785	.376	.713	-.188	.864
Weapon					-.035	.330	-.584	.379	.204	.377	-.367	.422
Length of crime					.808**	.289	.358	.337	1.093**	.336	.615	.381
Victim Resistance												
Type of resistance (Physical)												
None/passive									2.923***	.385	2.324***	.445
Verbal									2.248***	.424	3.055***	.450
-2 Log Likelihood	922.877				867.484				756.852			
Model chi-square	268.973***				381.045***				495.261***			
Cox & Snell Pseudo R^2	.355				.463				.554			

† $p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$

Note. Variable names were shortened due to space constraints; full variable names are available in-text and in Table 1; *B* = beta weights; SE = standard error.

Table 14. Parsimonious sequential multinomial logistic regression model for offender reaction to victim resistance (DV3)

Predictor	Block 1				Block 2				Block 3			
	Noncoercive vs. Physical coercion		Verbal vs. Physical coercion		Noncoercive vs. Physical coercion		Verbal vs. Physical coercion		Noncoercive vs. Physical coercion		Verbal vs. Physical coercion	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Offender lifestyle												
Drug addicted	.659**	.195	.927**	.281	-.178	.267	.436	.356	-.491	.291	.223	.365
Disinhibitors												
Affect during (Other)												
Aggression/anger					-1.606***	.288	-1.499***	.408	-.846**	.317	-1.045*	.426
Sexual arousal					1.057***	.246	.963**	.299	.948***	.266	.877**	.309
Alcohol before					.961***	.221	.834**	.282	.719**	.241	.681*	.292
Drug before					.631*	.281	.096	.354	.477	.302	.010	.364
Fantasies before					-.363	.244	-.765**	.286	-.245	.260	-.696*	.293
Victim characteristics												
Victim age (≥ 16)												
≤ 12 years									2.202***	.275	1.398***	.330
13 – 15 years									1.399***	.337	.941*	.403
-2 Log Likelihood	22.572				246.339				398.728			
Model chi-square	16.551***				180.564***				253.014***			
Cox & Snell Pseudo R^2	.027				.255				.338			

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$

Note. Variable names were shortened due to space constraints; full variable names are available in-text and in Table 1; *B* = beta weights; SE = standard error.

Predictor	Block 4				Block 5			
	Noncoercive vs. Physical coercion		Verbal vs. Physical coercion		Noncoercive vs. Physical coercion		Verbal vs. Physical coercion	
	B	SE	*B*	SE	*B*	SE	*B*	SE
Offender Lifestyle								
Drug addicted	-.403	.317	.201	.372	-.379	.350	.339	.402
Disinhibitors								
Affect during (Other)								
Aggression/anger	-.294	.343	-.839†	.433	-.335	.386	-.855†	.472
Sexual arousal	.858**	.302	.817*	.325	.836*	.342	.847*	.366
Alcohol before	.583*	.268	.645*	.302	.458	.303	.495	.333
Drug before	.365	.329	-.014	.371	.395	.363	.000	.400
Fantasies before	-.503†	.286	-.782*	.305	-.533	.324	-.812*	.344
Victim characteristics								
Victim age (≥ 16)								
≤ 12 years	.858*	.338	.658†	.379	.288	.388	.189	.426
13 – 15 years	.568	.389	.456	.438	.527	.452	.411	.496
Offender MO								
Approach	1.644**	.593	1.620*	.759	1.153†	.668	1.219*	.817
Strategies (Violent)								
No strategy	1.549*	.607	.227	.781	1.352†	.700	-.023	.849
Nonviolent	.506	.599	-.134	.759	.050	.678	-.511	.831
Length of crime	.824**	.272	.252	.316	1.124***	.317	.546	.359

Predictor	Block 4				Block 5			
	Noncoercive vs. Physical coercion		Verbal vs. Physical coercion		Noncoercive vs. Physical coercion		Verbal vs. Physical coercion	
	B	SE	*B*	SE	*B*	SE	*B*	SE
Victim Resistance								
Type of resistance (Physical)								
None/passive					2.736***	.358	2.183***	.424
Verbal					2.093***	.400	2.875***	.424
-2 Log Likelihood	589.677				639.083			
Model chi-square	354.409***				467.932***			
Cox & Snell Pseudo R^2	.439				.534			

† $p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$

Note. Variable names were shortened due to space constraints; full variable names are available in-text and in Table 1; *B* = beta weights; SE = standard error.

Among some of the other important variables within the final block was the length of the crime, with a shorter crime being most likely to be related to a noncoercive reaction to resistance (B = 1.124, p < .001). The offender's approach was also a significant factor, with a noncoercive approach correlating to a verbally coercive response (B = 1.219, p < .05) and, to a lesser degree, a noncoercive response to resistance (B = 1.153, p < .10); however, this relationship was stronger before the addition of the final block (verbal coercion: B = 1.620, p < .05; no coercion: B = 1.644, p < .01). The offender's affect also displayed an effect, with sexual arousal leading to the lowest likelihood and aggression/anger leading to the highest likelihood of physical coercion. This is demonstrated by the increase in verbal (B = .847, p < .05) or noncoercive (B = .836, p < .05) responses for a sexually aroused offender compared to other affects and a decrease in verbal (as opposed to physical) offender reactions for an angry offender (B = -.855, p < .10). Again, this effect was stronger in earlier blocks. The last variable that held significance to the final block was whether the offender had engaged in sexual fantasies before the crime, with the absence of such fantasies related to a greater likelihood of physical coercion, particularly when compared to verbally coercive responses (B = -.812, p < .05).

Other variables were found to significantly affect the model, despite losing significance by the addition of the final (fifth) block. When alcohol was used before the crime, this was related to a physically coercive response, although only significant until Block 4. When alcohol is used prior to the crime, a physically coercive response is more likely than a verbal reaction (B = .645, p < .05) and a noncoercive reaction (B = .583, p < .05). Additionally, the victim's age demonstrated significance upon addition to the model within the third block. Children (12 and younger) and adolescents (13-15) were both most likely to encounter a noncoercive reaction to resistance as compared to physical coercion (children: B = 2.202, p < .001; adolescents: B = 1.399, p < .001). Both groups were also more likely, though to a lesser extent, to encounter verbal rather than physical coercion (children: B = 1.398, p < .001; adolescents: B = .941, p < .05). Thus, adult victims were the most likely to encounter a physically coercive reaction to resistance.

Although only significant upon entrance to the model in Block 4, when the offender had no strategy to commit his crime, this was related to a noncoercive offender reaction

to victim resistance (B = 1.549, p < .05). Also only significant upon entrance was the use of drugs before the crime, the presence of which showed a significant relationship to physical coercion as compared to a noncoercive response in the second block (B = .631, p < .05). Similar to the findings for the previous two DVs, a drug-addicted lifestyle led to more dangerous reactions, with physical coercion being more likely than verbal coercion (B = .927, p < .01) and no coercion (B = .659, p < .01) in response to resistance. Similar to previous models as well, however, was the fact that this variable only attained significance within the first block.

4.1.4. DV4: Rape completed (penetration)

The preliminary model for the fourth dependent variable, whether the rape was completed (the offender incorporated penetration), can be viewed in Table 15 and the parsimonious model can be viewed in Table 16. Within the final model for this DV, eight independent variables significantly (p < .05) added to the explained variance of the model: marital status; affect during the crime; pornography before crime; fantasies before crime; victim gender; victim age; offender-victim intimacy; and length of the crime. As determined by the -2 LL and *chi*-square values, the model was significant at all blocks. Furthermore, the Cox and Snell Pseudo R^2 demonstrated an increase in the goodness-of-fit with each subsequent block addition from .009 in Block 1, to .033 in Block 2, to .130 in Block 3, to .156 in Block 4, to .195 in Block 5.[3]

The victim's gender was the variable most important to this model, with females much more likely to be the victims of a completed rape (B = -1.336, p < .001). Also, a crime that lasted longer than 15 minutes was more likely to involve penetration (B = 1.109, p < .001). As well, while there was no significant difference between stranger assaults and assaults of acquaintances or friends, compared to a stranger, a family member or partner was much more likely to be subjected to a penetrative assault (B = 1.008, p < .01). Assaults involving adults were also more likely to incorporate penetration than assaults against children under 12 (B = -.912, p < .01), although there was no difference between adults and adolescents (ages 13-15).

3 Similar to DV3, the parsimonious model for DV4 contained only five blocks due to the absence of significance for the victim resistance variable.

In terms of what occurs just prior to the crime, offenders who viewed or used pornography before the crime were less likely to penetrate their victim (B = -.725, p < .05), as were those who engaged in sexual fantasies before the crime, although this variable only attained significance in Block 2 (B = -.434, p < .05). When an offender was sexually aroused during the commission of the crime, this was the most likely affect to lead to a penetrative attack (B = .479, p < .05), a relationship that, interestingly, increased in importance through each block addition. Finally, an offender who is married or in a common law relationship is more likely to complete their sexual assault, although this only remained significant through Block 2 (B = .405, p < .05).

Table 15. Preliminary sequential binary logistic regression model for rape completion/penetration (DV4)

Predictor	Block 1		Block 2		Block 3		Block 4		Block 5		Block 6	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Offender Lifestyle												
Marital status	.428*	.195	.383†	.199	.205	.214	.097	.218	.006	.226	.048	.228
Employed	.213	.184	.214	.188	.327	.204	.263	.207	.221	.215	.212	.216
Alcohol addicted	.175	.201	-.006	.221	-.083	.236	-.075	.239	.109	.254	.091	.255
Drug addicted	-.017	.211	-.066	.255	-.272	.273	-.304	.275	-.214	.287	-.246	.290
Disinhibitors												
Affect during (Other)												
Aggression/anger			.314	.261	-.093	.294	-.087	.296	-.197	.315	-.150	.317
Sexual arousal			.274	.209	.391†	.229	.442†	.234	.499*	.245	.507*	.248
Alcohol before			.412†	.215	.208	.236	.186	.245	-.002	.258	.040	.261
Drug before			-.022	.255	-.102	.275	-.107	.275	-.196	.285	-.187	.289
Porn before			-.637*	.260	-.573*	.280	-.751*	.291	-.680*	.303	-.737*	.311
Fantasies before			-.430*	.199	-.170	.216	-.092	.224	-.203	.244	-.218	.246
Victim characteristics												
Victim gender					-1.715***	.250	-1.475***	.259	-1.306***	.269	-1.299***	.271
Victim age (≥ 16)												
≤ 12 years					-.671*	.261	-1.148***	.300	-.748*	.341	-.793*	.347
13 – 15 years					.040	.340	-.120	.347	.150	.373	.069	.377
Victim background					.325	.211	.285	.216	.199	.225	.171	.226
Situational Impediments												
Time of crime							.033	.222	.215	.232	.250	.235
Off-victim intimacy (Stranger)												
Known/friend							-.051	.282	-.033	.295	-.024	.297
Family/partner							.927**	.313	1.123**	.336	1.083**	.337

Predictor	Block 1		Block 2		Block 3		Block 4		Block 5		Block 6	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Offender MO												
Premeditation (Structured)												
None									-.064	.293	-.026	.296
Unstructured									.175	.264	.171	.266
Approach									.883	.602	.877	.602
Strategies (Violent)												
No strategy									.361	.596	.248	.596
Nonviolent									.312	.598	.247	.594
Weapon									-.167	.307	-.191	.309
Length of crime									1.119***	.222	1.126***	.223
Victim Resistance												
Type of resistance (Physical)												
None/passive											.184	.304
Verbal											.772*	.355
-2 Log Likelihood	741.669		722.716		655.843		638.603		606.493		600.696	
Model chi-square	7.420		26.373**		93.246***		110.486***		142.596***		148.393***	
Cox & Snell Pseudo R^2	.012		.042		.141		.165		.208		.215	

† $p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$

Note. Variable names were shortened due to space constraints; full variable names are available in-text and in Table 1; *B* = beta weights; SE = standard error.

Table 16. Parsimonious sequential binary logistic regression model for rape completion/penetration (DV4)

Predictor	Block 1		Block 2		Block 3		Block 4		Block 5	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Offender Lifestyle										
Marital status	.446*	.194	.405*	.197	.243	.210	.143	.214	.070	.220
Disinhibitors										
Affect during (Other)										
Aggression/anger			.419†	.255	-.048	.291	-.049	.293	-.080	.299
Sexual arousal			.258	.205	.427†	.225	.478*	.231	.479*	.236
Porn before			-.618*	.257	-.542†	.276	-.730*	.286	-.725*	.294
Fantasies before			-.434*	.197	-.188	.215	-.100	.222	-.241	.230
Victim characteristics										
Victim gender					-1.619***	.241	-1.389***	.250	-1.336***	.258
Victim age (≥ 16)										
≤ 12 years					-.608*	.245	-1.102***	.280	-.912**	.289
13 – 15 years					.059	.337	-.093	.341	.020	.348
Situational Impediments										
Off-victim intimacy (Stranger)										
Known/friend							-.024	.277	-.057	.284
Family/partner							.963**	.306	1.008**	.317
Offender MO										
Length of crime									1.109***	.207
-2 Log Likelihood	743.613		728.317		663.594		645.143		615.794	
Model chi-square	5.476*		20.772**		85.495***		103.946***		133.295***	
Cox & Snell Pseudo R^2	.009		.033		.130		.156		.195	

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$

Note. Variable names were shortened due to space constraints; full variable names are available in-text and in Table 1; *B* = beta weights; SE = standard error.

4.1.5. DV5: Victim forced to commit sexual acts

The final binary logistic regression models for the fifth dependent variable, whether the victim was forced to participate in the assault, are displayed in Tables 17 (preliminary) and 18 (parsimonious). Within the final model for this DV, 11 independent variables are significant ($p < .05$) additions to the final model: offender employed; affect during the crime; alcohol before crime; victim age; victim background; time of the crime; offender-victim intimacy; offender approach; strategies used by the offender; length of the crime; and the type of victim resistance. The -2 LL and *chi*-square values indicate that the model was significant at all blocks. Furthermore, the Cox and Snell Pseudo R^2 demonstrated an increase in the goodness-of-fit with each subsequent block addition from .012 in Block 1, to .092 in Block 2, to .120 in Block 3, to .182 in Block 4, to .215 in Block 5, to .221 in Block 6.

The time of day was shown to be the most influential variable, with daytime assaults more likely to involve forced victim participation ($B = -.829$, $p < .001$). The offender's affect also significantly affected the DV, with a sexually aroused offender being most likely to force the victim to perform sexual acts ($B = .674$, $p < .01$) and an aggressive or angry offender being least likely to do so, although this only achieved significance within Block 2 ($B = -.707$, $p < .01$). Similar to the effect of crime length on the likelihood of penetration, a longer crime was also more likely to include forced victim participation ($B = .663$, $p < .01$).

An offender who had no strategy to his crime was the least likely to force his victim to commit sexual acts ($B = -1.335$, $p < .05$) and a family member or partner was the most likely to be forced to participate ($B = .667$, $p < .05$). The victim's background also affected this outcome, with a victim from a poor or dysfunctional background being more likely to be forced to perform sexual acts ($B = .489$, $p < .05$). Additionally, compared to physical resistance, when a victim verbally resisted ($B = .578$, $p < .05$), as well as when the victim did not resist or only passively resisted ($B = .502$, $p < .10$), forced victim participation was more likely.

Table 17. Preliminary sequential binary logistic regression model for victim forced to commit sexual acts (DV5)

Predictor	Block 1		Block 2		Block 3		Block 4		Block 5		Block 6	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Offender Lifestyle												
Marital status	.213	.177	.272	.187	.244	.192	.166	.200	.116	.207	.127	.209
Employed	.392*	.171	.459*	.180	.470*	.186	.425*	.193	.430*	.200	.427*	.201
Alcohol addicted	-.088	.184	.208	.207	.155	.212	.105	.221	.275	.233	.269	.235
Drug addicted	-.335†	.194	-.145	.237	-.090	.242	-.031	.253	.008	.261	-.019	.263
Disinhibitors												
Affect during (Other)												
Aggression/anger			-.695**	.236	-.435†	.254	-.453†	.264	-.491†	.279	-.470†	.281
Sexual arousal			.654**	.202	.595**	.207	.730**	.217	.721**	.226	.694**	.227
Alcohol before			-.465*	.203	-.350†	.211	-.119	.227	-.232	.236	-.199	.238
Drug before			.083	.239	.134	.245	.126	.255	.159	.263	.174	.265
Porn before			.544†	.286	.483†	.293	.250	.308	.171	.319	.084	.323
Fantasies before			.084	.199	.079	.205	.097	.216	-.046	.234	-.040	.235
Victim characteristics												
Victim gender					-.151	.250	.011	.269	-.024	.279	-.024	.280
Victim age (≥ 16)												
≤ 12 years					.730**	.228	.150	.261	.249	.298	.168	.303
13 – 15 years					.277	.290	.095	.306	.112	.332	.063	.334
Victim background					.530**	.192	.561**	.201	.478*	.207	.483*	.209
Situational Impediments												
Time of crime							-.951***	.202	-.858***	.208	-.819***	.209
Off-victim intimacy (Stranger)												
Known/friend							-.086	.263	-.166	.271	-.160	.273
Family/partner							.660*	.272	.659*	.284	.654*	.286

Predictor	Block 1		Block 2		Block 3		Block 4		Block 5		Block 6	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Offender MO												
Premeditation (Structured)												
None									.029	.273	.036	.274
Unstructured									-.037	.244	-.027	.245
Approach									-1.259*	.561	-1.159*	.568
Strategies (Violent)												
No strategy									-1.197*	.575	-1.306*	.579
Nonviolent									-.435	.569	-.534	.576
Weapon									.221	.261	.186	.263
Length of crime									.676**	.216	.678**	.217
Victim Resistance												
Type of resistance (Physical)												
None/passive											.478†	.267
Verbal											.561†	.289
-2 Log Likelihood	821.182		767.699		749.412		708.584		682.630		678.052	
Model chi-square	13.203*		66.686***		84.973***		125.801***		151.754***		156.332***	
Cox & Snell Pseudo R^2	.021		.103		.129		.186		.219		.225	

† $p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$

Note. Variable names were shortened due to space constraints; full variable names are available in-text and in Table 1; *B* = beta weights; SE = standard error.

Table 18. Parsimonious sequential binary logistic regression model for victim forced to commit sexual acts (DV5)

Predictor	Block 1		Block 2		Block 3		Block 4		Block 5		Block 6	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Offender Lifestyle												
Employed	.449**	.169	.459**	.177	.467*	.183	.415*	.191	.390*	.195	.390*	.196
Disinhibitors												
Affect during (Other)												
Aggression/anger			-.707**	.233	-.423†	.252	-.438†	.262	-.445	.271	-.427	.273
Sexual arousal			.728***	.194	.648**	.201	.771***	.211	.702**	.217	.674**	.218
Alcohol before			-.371*	.176	-.236	.185	-.034	.200	-.067	.205	-.036	.207
Victim characteristics												
Victim age (≥ 16)												
≤ 12 years					.734**	.217	.151	.248	.203	.288	.121	.294
13 – 15 years					.287	.283	.111	.299	.094	.326	.041	.328
Victim background					.527**	.189	.571**	.198	.482*	.204	.489*	.205
Situational Impediments												
Time of crime							-.981***	.199	-.874***	.205	-.829***	.206
Off-victim intimacy (Stranger)												
Known/friend							-.107	.259	-.170	.267	-.163	.269
Family/partner							.659*	.264	.673*	.274	.667*	.276
Offender MO												
Approach									-1.216*	.557	-1.108†	.565
Strategies (Violent)												
No strategy									-1.243*	.569	-1.335*	.574
Nonviolent									-.511	.566	-.604	.573
Length of crime									.657**	.208	.663**	.210

Predictor	Block 1		Block 2		Block 3		Block 4		Block 5		Block 6	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Victim Resistance												
Type of resistance (Physical)												
None/passive											.502†	.263
Verbal											.578*	.285
-2 Log Likelihood	827.205		775.462		755.713		710.872		686.341		681.259	
Model chi-square	7.180**		58.923***		78.672***		123.512***		148.043***		153.126***	
Cox & Snell Pseudo R^2	.012		.092		.120		.182		.215		.221	

† $p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$

Note. Variable names were shortened due to space constraints; full variable names are available in-text and in Table 1; *B* = beta weights; SE = standard error.

According to the model, an employed offender was more likely to force victim participation than an unemployed offender (B = .390, p < .05). Additionally, while only holding significance within Block 5, a coercive approach was less likely to lead to forced victim involvement (B = -1.216, p < .05). Also only attaining significance within the block of entrance were the victim's age and the use of alcohol before the crime. As can be seen within Block 3, although there was no difference between adult and adolescent victims, a child victim is most likely to be forced to commit sexual acts (B = .734, p < .01). As for the use of alcohol, within Block 2, the presence of such consumption was related to a decreased likelihood of forced victim participation (B = -.371, p < .05).

4.2. Discussion

4.2.1. Degree of Violence

The results of the analyses of the first three dependent variables show similar relationships with key variables. First and foremost is the relationship to victim resistance. All three degree of violence variables demonstrate a strong relationship between a victim's choice of resistance strategy and the offender's subsequent level of violence. According to the first model, physical resistance is most likely to lead to the injury and death of the victim, while the second model shows that passive and verbal resistance most likely lead to no force (or sometimes minimal force) being used by the offender. The third model highlights the mirror-like relationship between how the victim resists and the offender's response to that resistance, with verbal resistance most likely to lead to verbal coercion by the offender and passive resistance (or a lack of true resistance) resulting in a noncoercive response by the offender.

This relationship between victim resistance and offender violence is currently under debate within the sexual assault literature. The results of the present study support previous findings from Balemba and colleagues (2012), in which an increased level of victim resistance was determined to lead to increased violence from the offender, a finding that was subsequently found to be particularly true for adult victims in terms of the most violent reactions from offenders (Balemba & Beauregard, 2012). Debate arises, however, when comparing such results to those of Ullman and her colleagues, which has found the

level of victim resistance to not lead to a greater level of violence from the offender (Brecklin & Ullman, 2005; Ullman, 1998; Ullman & Knight, 1993, 1995). Thus, while Ullman has been a proponent of a victim strategy that essentially advocates as much resistance as possible at all times, more recent work by Balemba (and the current results) do not support this contention as the best option to maximize victim safety.

While the previous support for a more cautious approach to victim safety strategies has focused primarily on the direct effect of victim resistance on the offender's immediate response specifically to that resistance (Balemba et al., 2012; Balemba & Beauregard, 2012), the current results replicate this research (with the third parsimonious model) but also go beyond such a scope to examine the effects on final crime outcomes. These results continue to support the notion that physical victim resistance can be dangerous for the victim and lead to the least desirable outcomes in terms of victim injury and level of force. This is a more direct comparison with the work conducted by Ullman, as her focus lay on the crime outcomes. The fact that the current results dispute the findings of Ullman and her colleagues is interesting and could be due to a variety of factors, such as the difference in analytical strategies or variable operationalization; however, this ultimately calls the issue into question and suggests that more research must be conducted in this area before criminologists can responsibly inform victims as to the safest course of action during a sexual assault.

According to the results herein, sexual assault victims should not be informed that physical resistance is always the best strategy to employ. While there are some conditions under which this is, in fact, the best option for the victim, this is not always the case. Victims may be given a false sense of security if they believe that maximum resistance will always lead to the best possible outcome if they are the victim of an assault. Furthermore, if society wishes for the reduction of the worst possible outcome of these crimes, such as injury, death, and increased violence levels, then victims must be informed about the potentially detrimental effect their resistance can have on the offender's subsequent violence levels. The results, however, do suggest that verbal resistance can be employed successfully without significantly increasing the danger to the victim. Thus, victims can at least be instructed to ensure a strong, undeniable "No" is heard by the offender as well as to call for help, if the situation allows, as these verbal strategies may stop the assault or

help to alert bystanders or potential witnesses, but will not likely increase the offender's level of violence.

Another important variable that was determined to be important for all degree of violence variables within the current study was the length of the crime. A longer crime was found to lead to a greater likelihood of injury and, especially, death of the victim. Relatedly, shorter crimes were more likely to involve no force (or sometimes minimal force) and result in a noncoercive response to victim resistance. Thus, it appears to be the case that a longer crime is a more dangerous crime. This relationship has been supported in previous literature (Balemba et al., 2012; Balemba & Beauregard, 2012; Mieczkowski & Beauregard, 2010) and can likely be explained simply due to the increased number of chances to inflict personal injury. The more time the offender has during his crime, the more opportunities he will have to commit any behaviour – injurious, sexual, sadistic, or otherwise. There is also the possibility that frustration with a crime that takes longer than expected can lead to angry outbursts of violence from the offender (Mieczkowski & Beauregard, 2010), regardless of the reason for the delay (e.g., sexual malfunction, victim resistance, or guardian presence). Either way, it is becoming an increasingly supported notion that a lengthy sexually assaultive crime can mean a much more undesirable outcome for the victim.

The type of approach that the offender employs is another variable that was shown to be relevant for all degree of violence variables in the present study. A coercive approach was more likely to lead to victim injury and death, while a noncoercive approach was more often associated with a lack of physical force (or sometimes minimal force) and either a noncoercive or, to a lesser extent, a verbally coercive response from the offender when the victim resists. A violent commencement to a crime is, thus, indicative of increased violence levels in later stages of the criminal event, including the final outcome. This finding has been supported in previous literature, specifically as it relates to the offender's reaction to victim resistance (Balemba et al., 2012; Balemba & Beauregard, 2012). The importance of this variable makes intuitive sense as well, in terms of the relationship between violence at one stage and violence at a subsequent stage. If an offender is willing to incorporate violence into his assault from the outset, chances are high that such an

offender would be likely to continue at this level of violence (or perhaps even escalate) throughout the assault.

When compared to those offenders who are noncoercive in their approach, this perhaps suggests a different sequence through the criminal event. This also could mean that some variables (such as victim resistance) may have more or less of an impact, depending on which sequence the offender may already find himself. For example, if an offender has begun in a coercive manner, the level of victim resistance may be less important to the final outcome, as the offender has already made the decision to utilize violence. In comparison, if an offender begins in a noncoercive manner, perhaps hoping to manipulate the victim into submission, physical resistance from the victim may serve as more of a turning point in the crime to one of greater violence and victim injury. While this speculation cannot be confirmed or refuted by the current findings, such a relationship could be the reason for the lack of agreement about particular variables in the literature (such as victim resistance). Thus, further analyses should examine the various paths that offenders can follow to determine if interactions between these and other variables exist that would have a significant effect on the final outcome of the assault.

Another variable that significantly affected all three of the degree of violence variables was the offender's affect during the crime. An aggressive or angry affect was associated with a greater likelihood of victim injury and death, excessive use of force by the offender, and the highest chance of physical coercion in response to resistance. Alternatively, when sexual arousal was the predominant affect during the assault, death of the victim was the least likely outcome, there was likely to be no force used by the offender, and a physically coercive response to resistance was least likely. These affects represented the extremes on either side of the "other" designation, which would include emotions such as loneliness, depression, anxiety, guilt, or happiness. Thus, the comparison between anger and sexual arousal was not simply significantly different when comparing the two, but also compared to other affects that did not fall into either category. This is an important distinction because, not only did the relationships exist when comparing the two affects most often experienced by offenders in such situations, but even when compared to other emotions, the relationships held strong and, in fact, demonstrated the relationship to an even more polarizing extent.

While research has been conducted examining the effects of various negative emotions as precursors to sexual offending (Pithers et al., 1989), far less has examined the relationship between offender affect and the progression and outcome of sexual assaults. According to the current results, angry offenders are more likely to resort to more violent and injurious behaviour while sexually aroused offenders are more prone to noncoercive, less violent behaviours (with other emotions falling somewhere in between). Thus, an angry offender may be decisively more violent from the outset of the crime, resulting in a less desired final outcome for the victim, in terms of the level of violence. Related to the offender's underlying motivation to commit that particular crime at the chosen time and place, an angry offender is more focused on hurting his victim and causing pain, which can manifest itself in various injurious ways. However, a sexually aroused offender is expected to be more concerned with completing the assault than causing pain. Thus, in such a situation, if the task appears to be too daunting (e.g., unexpected victim resistance, entrance of a guardian, elements of the setting causing difficulties), the offender is less likely to resort to violence and will not waste effort with excessive or unnecessary violence.

The age of the victim also demonstrated importance within each of the degree of violence regression models. Adult victims were most likely to be injured and killed and were also the most likely to encounter excessive force and physical coercion in response to their resistance. Comparatively, children were the least likely to encounter physical coercion if they resisted the assault and both children and adolescents were most likely to be assaulted with little to no force and receive a noncoercive reaction to any real or perceived resistance. Thus, the situation appears to be a more dangerous one if the victim is an adult.

These findings are very much in line with previous literature on the subject. Adult victims are often found to be more likely to be subjected to increased levels of violence compared to child victims (Balemba & Beauregard, 2012; Hunter, 2008; Scott & Beaman, 2004; Spohn, 1994; Weaver et al., 2004). It has been hypothesized that this relationship may be due to a greater degree of planning by the offender when choosing a child victim (particularly if a grooming process is incorporated into the crime) and that this leads to a more calm and controlled offender (Balemba & Beauregard, 2012). Alternatively, sexual

crimes against adults have been shown to be more likely to display elements of impulsivity and reactivity to the victim's behaviours, thus more likely to lead to out-of-control, violent behaviour from the offender, particularly in response to victim resistance (Balemba & Beauregard, 2012).

This relationship could also prevail due to the existence of cognitive distortions that are believed to be held by a high proportion of sexual offenders against children (Ward & Keenan, 1999). These distortions are purported to be responsible for the creation, maintenance, and justification of sexual offending against children (Navathe, Ward, & Gannon, 2008). Ward and Keenan (1999) suggest that there are five key types of implicit theories to which child sexual abusers will adhere. Two of these main themes focus on the idea that children are sexual beings and, thus, are willing participants and desire sexual activity, and that the nature of the sexual abuse is not one of harm and violence and there is no true harm being done to the child victim (Ward & Keenan, 1999). Such cognitive distortions as these imply that the offender does not believe the sexually assaultive behaviour to be criminal and/or morally wrong and he often does not even believe he is committing a violent offense. Thus, the use of excessive physical force or violence would not be desired by such an offender (and the idea would even be chastised) and he would never intentionally "hurt" the victim. The current results, then, would account for this difference in cognitive processing that would result in less physical violence from child abusers that adhered to these distortions. Furthermore, while Ward and Keenan (1999) discuss three other types of cognitive distortions, with the exception of those offenders who believe they are entitled to whatever they want or need (which could easily lead to violence and physical force), the other distortions are more about passing the blame to society and "the world", which could still overlap with other types of distortions that involve perceived consent or a disregard of harm.

Cognitive distortions are so pervasive that almost all child molesters are presumed to suffer from at least one type of distortion (Ward & Keenan, 1999), even if only during the commission of the offense. While offenders against adult victims also are presumed to have cognitive distortions of some kind, these tend to be more related to rape myth acceptance, negative perceptions of women, and the belief that relationships with women tend to be adversarial and hostile (Hall & Hirschman, 1991). Therefore, cognitive

distortions tend to be very different for those who offend against children compared to those who offend against adults, with the latter focusing more on aggression and negative emotions. If such distortions are the way that an offender is justifying and rationalizing his crime, this would necessarily relate to his emotional state (the importance of which was discussed above) and willingness to resort to violence and injurious behaviour. Thus, these differences in cognitive distortions may help explain the well-documented difference in violence levels between offenses that involve child victims and those perpetrated against adults.

The last variable that demonstrated importance within all three degree of violence models was the effect of the offender's consumption of alcohol prior to the commission of the crime. The presence of alcohol use was associated with an increased likelihood of victim injury and, to an even greater extent, death of the victim. As well, physical coercion was the most likely offender response to victim resistance when alcohol had been consumed. Similarly, when the offender did not use alcohol before committing his crime, there was likely to be no force or, perhaps, a minimal amount of force used by the offender. Overall, when an offender had consumed alcohol before the crime, the worst outcomes were more likely, due to a general increased level of violence.

Within sexual assaults, the relationship between increased levels of offender alcohol intoxication and greater victim injuries has been well supported within previous research (Brecklin & Ullman, 2010; Busch-Armendariz et al., 2010; Coker et al., 1998; Martin & Bachman, 1998; Testa et al., 2004; Ullman & Brecklin, 2000). Additionally, Felson and Staff (2010) determined that, while intoxication is one of the strongest correlates of violent behaviour, compared to other violent and nonviolent crimes, homicide, sexual assault, and physical assault are the crimes in which alcohol is most likely to play a role. Further to that, the higher the offender's level of intoxication, the greater the effect (Felson & Staff, 2010). Thus, the findings herein are not unexpected. The pattern in which offender alcohol use is more likely to have occurred prior to a more violent or injurious crime is, in fact, quite in line with what has been found previously.

There are different ways to approach an explanation for this relationship. Firstly, because alcohol acts as a disinhibitor, it can be hypothesized that higher levels of violence and victim injury are likely associated with an intoxicated offender's inability to control his

anger (or other negative emotions) and/or his zeal during the crime. Thus, he is more likely to become violent after having consumed alcohol. However, as Felson and Staff (2010) suggest, the alcohol could be part of the planning process in such a way that, due to the increased risk associated with crimes that involve personal confrontation, alcohol is used to reduce anxiety and overcome any tendencies towards empathy that could threaten completion of the crime. Thus, either a heightened level of violence is the reason that alcohol is required or alcohol is responsible for the subsequent increased violence. There is, of course, also the chance that both processes could be at work simultaneously within the same crime. Regardless of this "chicken or egg" causal debate, there is an undeniable connection between alcohol consumption and crimes that involve greater violence and victim injury.

While it is interesting to discuss the similarities amongst all of the models for the degree of violence variables, it is equally appealing to discuss some of the most notable distinctions. Within the second model, analyzing the level of physical force, premeditation was found to have a large effect within the model; while it was also present in the first model – physical harm inflicted – the effect was much stronger with respect to the level of force. This unique finding indicated that, when there was some premeditation before the crime, but it was unstructured, this was much more likely to result in no force compared to cases in which structured premeditation was evident. Thus, cases in which the offender had an organized, thought out plan were more likely to involve greater levels of force than a disorganized, incomplete plan. However, although not as strong of an effect, it was also found that the offender who had not premeditated his crime was more likely to injure and possibly kill his victim compared to those who had an organized plan. Thus, no plan at all appears to be most likely to lead to the worst crime outcomes. Together, this leads to a relationship in which a partial plan by the offender is the safest for the victim, no premeditation at all is worst for the victim, and an organized plan lies somewhere in between in terms of violence.

This relationship can be hypothesized to be due to the situational aspects that accompany various crime types. The general notion that unplanned or impulsive crimes are more likely to involve violence has support within previous research (Derefinko, DeWall, Metze, Walsh, & Lynam, 2011; Lynam & Miller, 2004), specifically in terms of the

likelihood of physical fighting, the use of a weapon, and severely injuring another person (Derefinko et al., 2011). A possible explanation for this relationship relates to one of the most influential aspects of a sex crime event: that is, the choice of victim. Previous research has supported differences in premeditation associated with different victim types; specifically, there is a notable difference between offenses against children compared to those against adults. Offenses against children are more likely to involve greater degrees of preparation (Balemba & Beauregard, 2012; Proulx et al., 1999; Ward et al., 1995). Because these are also the victims least likely to encounter excessive violence and injury, while adult victims are most at risk (Balemba & Beauregard, 2012; Hunter, 2008; Scott & Beaman, 2004; Spohn, 1994; Weaver et al., 2004; also as found within the results of the current study), this helps to explain the relationship between a lack of planning and greater levels of violence – both are more likely to be present in offenses against adult victims.

However, to explain the differences between the various types of planning (structured versus unstructured), this is very likely a manifestation of the mindset of offenders who engage in various levels of planning. To illustrate, imagine an offender who has placed a great deal of time and effort into thinking about and planning the details of a sexual assault. If the crime does not progress according to this plan, such an offender is more likely to either try to force the crime to return to the offending trajectory he had prepared for or become angry or upset that the crime is not adhering to his design. He also would not consider giving up on such a design unless there is no other option. However, this offender will also be more likely to flee, rather than force a crime that is too far off course compared to a completely impulsive offense. Alternatively, an offender who has only taken into account some of the more basic elements of his crime beforehand, and thought about his preferred outcome, is more malleable to the situation if the crime does not progress according to that plan. As well, an offender with such unstructured premeditation would not have been as invested in a particular offense design and would not become overly emotional when the unexpected occurs and would also be more willing to concede a loss and try again another time. While such reasoning is speculative in nature, such an interpretation would explain why planning in general is less dangerous than complete impulsivity, but more planning equates to more investment, which would affect the offender's willingness to adapt or admit defeat.

A final variable that played an interesting and distinctive role was that of deviant fantasies. This factor only affected the offender's reaction to victim resistance (third model) and did not emerge as a significant variable for either of the other level of violence variables. This relationship held that, when deviant fantasies were not present, a physically coercive reaction was more likely, particularly when compared to verbal coercion. This relationship is very likely related to the predominate affect that the offender is experiencing before commencing his crime. As discussed previously, when an offender's affect is aggressive or angry, violence is the much more likely outcome, whereas, when the predominate affect is sexual arousal, violence beyond what is instrumental to the crime is unlikely. Thus, if an offender participated in sexual fantasies prior to the crime, chances are that he is aroused or, at the very least, concentrated on the sexual aspect of the assault. If this is his focus, then violence serves as a means to an end (completing the assault), but is not an end in and of itself. This would explain the greater likelihood for a physically coercive response to victim resistance when there are no such deviant sexual fantasies prior to the crime. However, this and many other of the present variables have very different effects on the sexual intrusiveness of a sex crime event.

4.2.2. Sexual Intrusiveness

As with the results of the first three dependent variables, the last two parsimonious models reveal similar relationships with particular key variables. However, there did not exist as much overlap of key variables between the two models as did between the degree of violence variables. This indicates that rape completion and forced victim participation are two very different constructs of sexual intrusiveness.

Four variables were present in the parsimonious models for both sexual intrusiveness variables. The length of the crime was one of the more important variables in both models. In both cases, longer crimes were associated with worse outcomes, whether it be penetration or forced victim participation. As with the level of violence variables, it appears to be the case that more lengthy crimes are more dangerous for the victim. The rationale for this relationship is likely very similar to that proposed for the degree of violence variables; that is, longer crimes simply allow for the completion of more

acts, whether violent or sexual in nature. Thus, for the sexual intrusiveness variables, a longer crime allows for a greater chance of success in terms of rape completion as well as more time in which to force the victim to commit sexual acts. Whether the crime is planned to last longer (to be able to commit such acts) or not (the crime takes longer to complete than the offender anticipated), a longer crime increases the chances of sexually intrusive acts being successfully perpetrated against the victim.

A second variable found to be relevant to both measures of sexual intrusiveness within the models was the offender's affect. Not surprisingly, when an offender was sexually aroused during his crime, both penetration and forced victim participation were more likely. Additionally, a significant effect emerged in the fifth model in which an angry or aggressive affect was associated with the lowest chance of a victim being forced to commit sexual acts. These findings are very much related to the similar, but opposing, findings for the level of violence variables. As mentioned therein, angry or aggressive offenders are more likely to be interested in and willing to resort to more violence either as a part of or to complete the assault. Comparatively, sexually aroused offenders are less willing to resort to violence, but the sexual elements of the crime are very likely the top priority for offenders experiencing such strong, sexual emotions. Therefore, it is not surprising that an offender whose goals are to complete the rape and/or force his victim to participate will be more likely to do so during his crime. Regardless of the degree of planning, an offender's focus on sex will make him more likely to structure his crime so that this outcome is, at least in his mind, a distinct possibility and will work towards this final goal more so than an offender who is more focused on his anger and subsequent violence.

Indirectly, these findings and related suppositions are supported by Loewenstein, Nagin, and Paternoster (1997), who found a relationship between sexual arousal and respondents' belief that they would behave in sexually aggressive manner. While this failed to measure differences in actual behaviour, this study determined that those university students who were exposed to sexually arousing stimuli were more likely to self-report a willingness to "coax" a woman in a hypothetical scenario to remove her clothes (Loewenstein et al., 1997). The authors proposed that this arousal condition was more likely to lead to sexually assaultive behaviours; however, this also indirectly supported the

focus on the sexual aspect of an assault that correlates to a sexually aroused potential offender. These participants did not wish to hurt or injure their hypothetical victim but, rather, simply wanted to coerce her into sexual activity (the term “coax” hardly suggests violent, injurious methods). Thus, while the results are somewhat inconclusive in regard to actual behaviour, this direct focus on sexual elements of a sex crime support the relationship between sexual arousal and forced penetration and victim participation.

Another variable that was determined to be important for both sexual intrusiveness dependent variables was the level of offender-victim intimacy. For both outcome variables, when the victim is a family member or partner, a higher degree of sexual intrusiveness can be expected. Thus, family members and partners are more likely to be subjected to penetration during their assault as well as be forced to commit sexual acts themselves compared to strangers or friends/acquaintances. This variable was not present within the degree of violence models and, thus, appears to be specific (or at least more relevant) to the sexual aspect of a sex crime.

While assaults by partners in an intimate relationship have been demonstrated to be the most common type of sexual assault (Baumeister et al., 2002; Gidycz et al., 2006; Ullman, 2007a), this does not itself explain the fact that these types of assaults are most likely to involve greater levels of sexual intrusiveness. Ullman (2007a) has suggested that, due to the decreased resistance offered by women who are assaulted by known men, particularly within an intimate partnership, this makes these women more vulnerable to a completed rape – a notion that could extrapolate to forced participation as well. Because women are less likely to resist their attacker, whether out of obligation to the marriage, fear of retribution or harm to children, previous experience in which resistance was ineffective, or an inability or unwillingness to fight (Ullman, 2007a), this makes the assault easier for the offender to carry out and complete. While Ullman’s research was specific to adult female victims, this same concept would likely hold true for child victims as well. It is likely that a male head of a household, for example, would have as much – if not more – control over his children as he does over his wife. Combining this suggestion with the fear and confusion that a child would experience when being assaulted by an adult they know and trust, the likelihood of little or no resistance to a familial assailant is more than

understandable and could explain how the current findings would relate to children as well as adults.

However, as the final overlapping variable denotes, the type of sexual intrusiveness may be dependent on the victim's age. While the effect was stronger with regard to likelihood of penetration, this variable was present in both parsimonious models and essentially suggested that adults and adolescents are far more likely to be the victim of a completed rape through penetration while children are more likely to be forced to commit sexual acts, such as touching or fondling. Within these models, the adolescent group was most similar to the adult group, being no less likely to have the rape completed and being no more likely to be forced to participate.

Although the effect of victim age on rape completion is ambiguous within the literature at best, these results are somewhat contrary to previous findings in which younger victims, particularly young female victims, were more likely to be subjected to penetration than older victims (Woodhams, 2004; Woodhams et al., 2007). However, a lot of the "young" victims in these studies would fall into the "adolescent" category of the current study, which would make the current results very much in line with these previous findings. The difference between offenses committed against prepubescent children and adults is, thus, an interesting phenomenon; however, it is not unexpected.

Based on the previously discussed prevalence and type of cognitive distortions experienced by child molesters in particular, many such offenders do not want to physically harm or injure their victims and often believe the sexual activity to be consensual (Ward & Keenan, 1999). While clearly confused about the ability of children to consent, and ignorant to the harm being caused by their actions, child molesters who believe these distortions would often still be aware of the physical damage that could be done should they engage in penetrative intercourse with their young, undeveloped victims. Thus, these offenders who do not wish to "hurt" the children they view as consenting partners would be less likely to rape their victims, but would see forcing the victim to perform sexual acts, either on themselves or on the offender, as acceptable and noninjurious. For example, forcing the child to perform fellatio on the offender or to masturbate themselves or the offender would not physically harm the child to the same extent that intercourse very likely would.

Relatedly, as discussed above, the cognitive distortions that rapists have when the victims are adults are more centred on rape myths, negative perceptions of women, and the alleged adversarial and hostile nature of relationships with women (Hall & Hirschman, 1991). Thus, there is a much greater sense of entitlement and ownership of women, and aggressive resistance from the woman may be expected – particularly given the existence of a certain degree of so-called "token resistance" from all females at some point within a sexual encounter with a new partner (Tedeschi & Felson, 1994, p. 321) – and may even be enjoyed by the offender if it does occur. Taken with the fact that an adult's body is physically much more amenable to sexual intercourse than that of a prepubescent child, an offender would likely feel that even forced or violent sex would not "hurt" the victim the same way it would hurt a child, which could serve as justification for his criminal behaviour. Thus, an offender who perpetrates rape against an adult victim would likely either care very little about the emotional or physical pain of his victim, due to the existence of negative distortions about women, or would be much more able to justify a penetrative offense for an adult victim, particularly if the victim is a partner, in which case an ongoing sexual relationship reduces the perceived harm to the victim even more. While forced victim participation could occur during the crime as well (which could account for the reduced effect of the variable within the model for this outcome variable), a successful completion of a rape would often make any subsequent sexual activity unnecessary.

While these four variables were all of the ones found within both sexual intrusiveness models, there were many others that were specific to each outcome. With regard to likelihood of rape completion, the victim's gender was found to have a large impact, with female victims being more likely to be the victim of a penetrative offense. This is in agreement with previous research that has found the same relationship (Kimerling et al., 2002). This increased risk of rape completion for females could be due to the greater vulnerability of these victims, as alluded to in Kimerling et al. (2002). As well, many male victims of reported assaults tend to be children, due at least in part to the vastly lower reporting rates for adult male victims (Bullock & Beckson, 2011). And, because assaults against children are less likely to involve penetration (as discussed above), this would relate to a lower prevalence of penetration for male victims. As well, because a great deal of sexual assaults are within an intimate or marital relationship (Baumeister et al., 2002; Gidycz et al., 2006; Ullman, 2007a), and most such relationships are heterosexual (with

the male serving as the aggressor in cases of abuse), this would equate to more female victims with a higher likelihood of rape completion.

Within the current findings, the use of pornography and the presence of deviant fantasies prior to the crime were both related to a decreased likelihood of penetration during an assault. Thus, combined with the previously discussed findings, in which fantasies were also associated with a decreased likelihood of a violent response to victim resistance, the presence of fantasies (and, relatedly, the use of pornography) seems to mitigate both violent and sexual crime outcomes. While the explanation for the reduction of violence centred on the offender's affect, the relationship to rape completion is more complex. While the presence of deviant fantasies has generally been related to the commission of a sexual assault (Knight & Sims-Knight, 2003; Maniglio, 2010; Marshall & Marshall, 2000; Williams et al., 2009), and the use of pornography has been suggested to amplify such fantasies (Williams et al., 2009) as well as be more directly related to sexual offending (Donnerstein & Berkowitz, 1981; Malamuth et al., 2000; Marshall, 1988; Marshall & Barbaree, 1990; Seto et al., 2001; Williams et al., 2009), this does not explain the difference in the type of sexual activity that is incorporated into these crimes. That is, while pornography and deviant fantasizing may lead to the crimes taking place, they do not lead to the most sexually intrusive outcome – namely, rape completion.

This could very well be explained by the sexual need required by an offender who has viewed pornography and participated in deviant sexual fantasizing before his crime. Although this increases his desire to commit a sexual assault, the actual completion of the assault may be desired, but not required to fulfill the needs of the offender. That is, he very likely masturbated to release during his earlier pornography exposure and fantasizing, and, thus, does not feel as strong a need for this release during his crime. Furthermore, many offenders will masturbate to various details of their assaults after the fact and this may be one of the reasons for offending in the first place – to fuel his subsequent fantasies with fresh, new material. Lastly, an offender who has vivid fantasies and views pornography to the extent that expectations arise may become disappointed more easily when the victim resists or the assault does not live up to the expectations of his fantasies.

With respect to the fifth model (victim forced to commit sexual acts), one of the most influential variables that did not overlap with the rape completion outcome variable

was the time of the crime, with a daytime assault being more likely to involve forced victim participation. Balemba and Beauregard (2013) demonstrated a similar relationship, with daytime offenses more likely to involve forced participation; this was true for both child and adult victims, but child victims were more likely to be assaulted during the day. Thus, this finding could relate both to the type of victim as well as the type of assault that would take place during the day compared to one that would transpire only at night. Child victims, in general, are more likely to be assaulted during the day, which is likely due to the fact that access to children would be higher during the day (as children tend to be sleeping during earlier hours of the night). Because sexual crimes against children are also more likely to involve forced participation (as discussed above), then the higher proportion of daytime assaults would often be more likely to involve forced participation because more of these victims would be children. However, for those adult victims who are attacked during the day, forced victim participation might be more likely compared to an assault that takes place at night, which has been found to be more likely to involve physical violence and penetration (Balemba & Beauregard, 2013).

The strategies used by the offender were also related to the incidence of forced victim participation. When there was no specific strategy employed by the offender to commit the crime, this was the least likely crime type to incorporate victim participation. When compared to cases in which the offender used some form of violent or nonviolent persuasion to commit his crime, these results make sense in terms of the type of crime committed by an offender with no specific strategy. An offender with no strategy is likely disorganized in his offending and not prepared with a plan to either verbally or physically persuade his victim to submit. This disorganized offender may not even consider forcing his victim to commit sexual acts and may simply carry out his offense, perhaps adapting to the situation as it progresses or fleeing at the first sign of trouble. A more organized offender can be expected to be more likely to incorporate various different offending behaviours, which would more often incorporate forced victim participation.

The victim's background was also related to the offender forcing his victim to commit sexual acts, with a poor or dysfunctional background associated with an increased likelihood of forced victim participation. While research has shown that a criminogenic background can serve as a protective factor in some instances of the most dangerous

outcomes, such as lethal sexual assaults (Mieczkowski & Beauregard, 2010), proposed to be due to the victim's improved awareness of what to do and what not to do during a sexual assault, this does not seem to be the case with less severe, but still undesirable, crime outcomes. Rather, this appears to be a case of heightened victim vulnerability due to increased exposure to a dysfunctional home life. While this variable included various types of dysfunctions (such as domestic abuse, prostitution, lack of sufficient resources, and alcohol or drug abuse in the home), such an environment is conducive to victim vulnerability as there do not exist the resources to avoid abuse and such behaviour may have become normalized to the victim. Thus, as with instances in which women do not feel able to avoid or stop an assault from an intimate partner (Ullman, 2007a), a victim in a dysfunctional or poor environment may feel similarly unable to avoid an assault and would be more likely to participate in the sexual assault at the offender's insistence. Particularly if sexual abuse occurred repeatedly over time at the hands of the same offender, a victim would become habituated into acquiescence, essentially obeying the demands of her abuser more readily than a victim from a healthier background.

The level of victim resistance also significantly affected the chance that a victim would be forced to commit sexual acts during an assault. Specifically, verbal resistance was more likely than physical resistance to result in forced victim participation. This is contrary to the effect that victim resistance has been shown to have on the level of violence, with greater resistance leading to more violence from the offender (as discussed previously). Thus, while there was not a significant relationship with rape completion, it appears that if the victim physically resists, she is more likely to avoid forced participation, but is risking more violence and injury. While an unfortunate choice for the victim to make, this result does seem sensible, especially for this particular intrusiveness outcome, as a physically resistant victim is much more difficult to force into sexual compliance. This is particularly true, given that forced participation, by definition, requires active involvement by the victim (as opposed to penetration, which can happen with our without the victim's submission).

Another element worth noting is the effect that different offender lifestyle variables had on sexual intrusiveness outcomes: an employed offender was more likely to force the victim to commit sexual acts and a married offender was somewhat more likely to complete

the rape (although this latter relationship only maintained significance through Block 2). It can be hypothesized that the relationship between employment and forced participation could be related to an offender's desire for power and control (whether due to that which he has come to expect from his career position or due to the fact that he lacks power within his job or career) or this could be related to sexual assault within the workplace, which, given the power differentials that exist therein, could involve various degrees of sexual intrusiveness. With regard to the moderately increased likelihood of penetration from offenders who are married, these offenders are often assaulting their spouses, which is more likely to involve penetration (see above discussion), but also could adhere to more cognitive distortions regarding entitlement if their marital relationship is an aggressive or abusive one. The offender could either have a wife who is regularly receptive (or submissive) to sexual advances, which would increase his sense of entitlement and expectation for submission from other women, or have a spouse who is dismissive and refuses to engage in regular intercourse with her husband, which would increase the offender's sexual frustration and desire for sex. Thus, in general, married and employed offenders are more likely to commit more sexually intrusive crimes.

4.3. Conclusion: Overall Distinguishing Patterns

While the importance of various independent variables has already been discussed, there are some overall patterns within the current results that proved to be very interesting as well. There are a select key variables that reappear among the most significant variables within the models. These variables emerge as important, not only based on the number of outcome variables to which they are significantly related, but also due to the large impact they have on these factors. These key variables are: type of victim resistance; length of crime; offender affect during the crime; victim age; and level of offender-victim intimacy. Each of these variables was a significant addition to most, if not all, of the models and were among the most influential within these models.

What is interesting to note is that each of these variables arise from different stages of the criminal event. The type of victim resistance is from the victim resistance stage, in which the victim's behaviour has an influence on the progression and outcome of the offense. The length of crime is part of the offender's MO and represents how the offender

commits his crime. The offender affect serves as a disinhibitor, prompting a motivated offender to commit his crime. The victim age represents a victim characteristic that distinguishes victims who are more vulnerable to either violence or sexual intrusiveness. Finally, the level of offender-victim intimacy is a potential situational impediment or, alternatively, a situational facilitator.

Overall, this demonstrates the importance of virtually every phase of the criminal event.[4] This is an important finding, as this suggests that there is no one portion of the crime that affects the outcome unilaterally. Rather, every aspect of the crime is potentially important to how the crime progresses and its final outcome. This particularly supports the examination of various sequences of offending, which incorporate the most important variables from each stage of a sexual crime. This is the focus of the next study.

4 The only phase not represented is the offender lifestyle category. However, this is not a stage of the criminal event but, rather, a collection of precursors to the crime that can affect the offender's decision-making process or his priorities within the crime.

Chapter 5. Results and Discussion – Study 3

Combining Outcomes to Differentiate the "Best" from the "Worst"

5.1. Results

The bivariate analyses of the relationships between each of the independent variables and the victim injury and/or rape completion variable can be found in Table 19. From these preliminary results, it is evident that, with the exception of four variables (offender marital and employment statuses, victim background, and premeditation), all of the independent variables are significantly related to the dependent variable ($p < .05$). Some of the most influential variables at this stage were within the offender MO category, such as the type of approach ($r = .573$, $p < .001$; $\chi^2 = 217.771$, $p < .001$), the strategies to commit the crime ($r = .488$, $p < .001$; $\chi^2 = 203.573$, $p < .001$), and the use of a weapon ($r = .439$, $p < .001$; $\chi^2 = 142.126$, $p < .001$). However, the victim's age proved to be important as well ($r = .483$, $p < .001$; $\chi^2 = 165.583$, $p < .001$), as did the type of victim resistance ($r = .467$, $p < .001$; $\chi^2 = 180.696$, $p < .001$). These initial findings are all reminiscent of the bivariate results from Study 2.

The results of the multivariate analyses are presented in Tables 20 to 23. As in the previous studies, the preliminary results are displayed for the purpose of transparency and for the interested reader; however, the focus of the discussion will be on the parsimonious models. Once again, independent variables that significantly contributed to the model ($p < .05$) within at least one block were maintained for the parsimonious model.

Although there were two separate analyses and, thus, two separate models presented, these are created using the same dependent variable, but simply with a different reference category (either "Both victim injury and rape completion" or "Neither victim injury nor rape completion"). Thus, the results and subsequent discussion will refer to both models simultaneously, with the appropriate statistics delineated therein.

Table 19. Bivariate analyses between independent variables and the victim injury and/or rape completion dependent variable

Variables	Correlation	Pearson *chi*-square	
	r	χ^2	Φ
Offender lifestyle			
Marital status	.024	5.850	.098
Employed	.004	3.576	.076
Addicted to alcohol	.123**	9.982	.128*
Addicted to drugs	.153***	20.479	.183***
Disinhibitors			
Affect during crime	-.251***	144.311	.485***
Alcohol before crime	.294***	57.573	.306***
Drug before crime	.172***	24.516	.200***
Pornography before crime	-.157***	17.668	.170**
Fantasies before crime	-.103*	9.319	.123*
Victim characteristics			
Victim gender	-.255***	84.399	.371***
Victim age	.483***	165.583	.520***
Victim background	-.043	2.421	.063
Situational impediments			
Time of crime	.232***	35.452	.240***
Offender-victim intimacy	-.229***	82.542	.367***
Offender *Modus Operandi*			
Premeditation	-.067†	8.456	.117
Type of approach	.573***	217.771	.596***
Strategies to commit crime	.488***	203.573	.576***
Use of a weapon	.439***	142.126	.482***
Length of crime	.307***	66.519	.329***
Victim resistance			
Type of victim resistance	.467***	180.696	.543***

† $p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$

Table 20. Preliminary sequential multinomial logistic regression model for victim injury and/or rape completion with "Neither" as reference

Predictor	Block 1						Block 2					
	Rape Completion vs. Neither		Victim Injury vs. Neither		Both vs. Neither		Rape Completion vs. Neither		Victim Injury vs. Neither		Both vs. Neither	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Offender lifestyle												
Marital status	-.422†	.235	.108	.379	-.353	.254	-.358	.241	.268	.407	-.195	.283
Employed	-.383†	.225	-.429	.342	-.262	.244	-.408†	.231	-.345	.367	-.243	.272
Alcohol addicted	-.129	249	-.306	.367	-.442†	.262	.088	.277	.464	.423	.218	.314
Drug addicted	-.005	.274	-.927*	.375	-.616*	.278	.128	.337	-.100	.471	-.042	.366
Disinhibitors												
Affect during (Other)												
Aggression/anger							.417	.503	1.915***	.532	2.169***	.474
Sexual arousal							.131	.240	-2.049***	.588	-.519†	.294
Alcohol before							-.495†	.270	-1.292**	.423	-1.241***	.306
Drug before							-.187	.344	-.857†	.473	-.486	.372
Porn before							.666*	.295	.629	.576	1.050*	.405
Fantasies before							.416†	.240	-.081	.396	.399	.290
-2 Log Likelihood	198.772						826.113					
Model chi-square	32.162**						212.330***					
Cox & Snell Pseudo R^2	.051						.293					

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$

Note. Variable names were shortened due to space constraints; full variable names are available in-text and in Table 1; *B* = beta weights; SE = standard error.

Predictor	Block 3						Block 4					
	Rape Completion vs. Neither		Victim Injury vs. Neither		Both vs. Neither		Rape Completion vs. Neither		Victim Injury vs. Neither		Both vs. Neither	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Offender Lifestyle												
Marital status	-.076	.261	.334	.426	-.062	.306	.051	.268	.322	.434	.008	.311
Employed	-.538*	.252	-.449	.383	-.401	.295	-.440†	.256	-.456	.390	-.390	.299
Alcohol addicted	.222	.299	.465	.443	.241	.341	.225	.302	.436	.448	.231	.342
Drug addicted	.367	.368	.134	.505	.324	.405	.413	.370	.134	.513	.309	.409
Disinhibitors												
Affect during (Other)												
Aggression/anger	.088	.533	1.395*	.563	1.371**	.507	.022	.536	1.402*	.561	1.370**	.506
Sexual arousal	.228	.259	-1.865**	.602	-.268	.320	.256	.264	-1.966**	.606	-.223	.324
Alcohol before	-.326	.296	-1.084*	.454	-.870*	.336	-.328	.302	-1.087*	.479	-.820*	.345
Drug before	-.104	.377	-.721	.506	-.340	.410	-.089	.377	-.701	.511	-.313	.413
Porn before	.653*	.321	.635	.603	.901*	.435	.798*	.332	.411	.619	.947*	.445
Fantasies before	.094	.262	-.225	.415	.118	.316	-.020	.271	-.100	.426	.194	.324
Victim characteristics												
Victim gender	1.940***	.304	-.234	.467	1.147**	.384	1.758***	.313	.023	.487	.989*	.393
Victim age (≥ 16)												
≤ 12 years	-.594†	.338	-1.640**	.506	-2.050***	.371	-1.056**	.377	-1.074†	.564	-2.111***	.416
13 – 15 years	.190	.421	-1.276†	.694	-1.359**	.484	.011	.430	-1.176†	.699	-1.393**	.489
Victim background	-.329	.256	.245	.408	-.114	.300	-.268	.262	.119	.416	-.173	.306

Predictor	Block 3						Block 4					
	Rape Completion vs. Neither		Victim Injury vs. Neither		Both vs. Neither		Rape Completion vs. Neither		Victim Injury vs. Neither		Both vs. Neither	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Situational Impediments												
Time of crime							-.030	.270	-.055	.424	-.123	.314
Off-victim intimacy (Stranger)												
Known/friend							.500	.413	-.033	.487	-.549	.412
Family/partner							1.241**	.428	-1.216†	.623	-.021	.437
-2 Log Likelihood			1045.444						1118.051			
Model chi-square			326.064***						362.049***			
Cox & Snell Pseudo R^2			.413						.446			

† $p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$

Note. Variable names were shortened due to space constraints; full variable names are available in-text and in Table 1; *B* = beta weights; SE = standard error.

Predictor	Block 5						Block 6					
	Rape Completion vs. Neither		Victim Injury vs. Neither		Both vs. Neither		Rape Completion vs. Neither		Victim Injury vs. Neither		Both vs. Neither	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Offender Lifestyle												
Marital status	.218	.280	.544	.462	.203	.340	.152	.284	.549	.477	.204	.348
Employed	-.424	.266	-.653	.422	-.439	.327	-.393	.269	-.704	.432	-.466	.332
Alcohol addicted	.078	.320	.405	.494	-.035	.384	.119	.321	.417	.511	-.074	.389
Drug addicted	.260	.387	.030	.548	.163	.442	.349	.391	.090	.560	.211	.447
Disinhibitors												
Affect during (Other)												
Aggression/anger	-.100	.570	.853	.607	.861	.552	-.059	.571	.835	.617	.834	.557
Sexual arousal	.317	.276	-1.436*	.637	.096	.360	.341	.278	-1.370*	.651	.160	.367
Alcohol before	-.109	.317	-.795	.515	-.506	.383	-.133	.319	-.769	.532	-.512	.387
Drug before	.024	.386	-.597	.543	-.137	.441	-.005	.391	-.629	.557	-.130	.446
Porn before	.771*	.346	.765	.696	.966†	.498	.824*	.355	.459	.737	.717	.509
Fantasies before	.097	.295	-.037	.506	.338	.379	.069	.298	-.142	.522	.361	.390
Victim characteristics												
Victim gender	1.620***	.332	-.472	.556	.439	.452	1.654***	.338	-.648	.578	.343	.465
Victim age (≥ 16)												
≤ 12 years	-.724	.442	-.084	.643	-.896†	.499	-.720	.456	.319	.669	-.572	.520
13 – 15 years	.229	.475	-.442	.745	-.587	.553	.207	.484	-.254	.754	-.481	.570
Victim background	-.143	.274	.221	.449	-.050	.336	-.120	.278	.280	.461	.039	.341
Situational Impediments												
Time of crime	-.258	.282	-.142	.463	-.351	.350	-.234	.286	.179	.483	-.166	.361
Off-victim intimacy (Stranger)												
Known/friend	.645	.453	.409	.531	-.149	.464	.676	.458	.428	.545	-.130	.474
Family/partner	1.548**	.475	-.541	.682	.591	.503	1.511**	.479	-.581	.692	.511	.511

Predictor	Block 5						Block 6					
	Rape Completion vs. Neither		Victim Injury vs. Neither		Both vs. Neither		Rape Completion vs. Neither		Victim Injury vs. Neither		Both vs. Neither	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Offender MO												
Premeditation (Structured)												
None	-.012	.361	.934	.585	.642	.443	.046	.366	1.047†	.608	.686	.455
Unstructured	.206	.318	-.097	.537	.112	.400	.189	.321	-.135	.554	.052	.412
Approach	-.946	.733	-1.896	1.183	-2.083*	.825	-.948	.743	-1.552	1.180	-1.899*	.839
Strategies (Violent)												
No strategy	.163	.731	-.952	1.179	-.056	.830	.105	.738	-.647	1.191	.122	.840
Nonviolent	.182	.730	-.532	1.172	-.388	.834	.175	.739	-.475	1.144	-.282	.835
Weapon	.515	.509	-.449	.554	-.460	.488	.618	.521	-.606	.566	-.589	.500
Length of crime	-1.094***	.272	-.779†	.435	-1.867***	.351	-1.076***	.274	-.816†	.448	-1.940***	.358
Victim Resistance												
Type of resistance (Physical)												
None/passive							-.024	.412	-1.835**	.604	-1.164*	.451
Verbal							.679	.459	-1.912*	.786	-.991†	.522
-2 Log Likelihood			1067.667						1035.105			
Model chi-square			474.998***						511.143***			
Cox & Snell Pseudo R^2			.539						.566			

† $p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$

Note. Variable names were shortened due to space constraints; full variable names are available in-text and in Table 1; *B* = beta weights; SE = standard error.

Table 21. Parsimonious sequential multinomial logistic regression model for victim injury and/or rape completion with "Neither" as reference

Predictor	Block 1						Block 2					
	Rape Completion vs. Neither		Victim Injury vs. Neither		Both vs. Neither		Rape Completion vs. Neither		Victim Injury vs. Neither		Both vs. Neither	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Offender lifestyle												
Employed	-.396†	.223	-.411	.340	-.241	.242	-.416†	.227	-.366	.362	-.230	.268
Drug addicted	-.019	.259	-1.047**	.352	-.745**	.262	.116	.273	-.407	.382	-.193	.296
Disinhibitors												
Affect during (Other)												
Aggression/anger							.393	.502	1.924***	.528	2.152***	.472
Sexual arousal							.054	.231	-1.932**	.578	-.558†	.285
Alcohol before							-.538*	.243	-1.310**	.379	-1.293***	.274
Porn before							.727*	.288	.521	.561	1.073**	.398
-2 Log Likelihood			67.552						318.226			
Model chi-square			23.472**						197.069***			
Cox & Snell Pseudo R^2			.038						.275			

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$

Note. Variable names were shortened due to space constraints; full variable names are available in-text and in Table 1; *B* = beta weights; SE = standard error.

Predictor	Block 3						Block 4					
	Rape Completion vs. Neither		Victim Injury vs. Neither		Both vs. Neither		Rape Completion vs. Neither		Victim Injury vs. Neither		Both vs. Neither	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Offender Lifestyle												
Employed	-.515*	.246	-.494	.377	-.388	.291	-.418†	.251	-.462	.384	-.358	.294
Drug addicted	.372	.298	-.106	.406	.225	.328	.417	.299	-.082	.413	.214	.328
Disinhibitors												
Affect during (Other)												
Aggression/anger	.085	.534	1.387*	.562	1.371**	.508	.036	.537	1.415*	.559	1.365**	.507
Sexual arousal	.216	.251	-1.773**	.590	-.262	.312	.270	.255	-1.869**	.595	-.218	.315
Alcohol before	-.296	.263	-1.068**	.403	-.876**	.299	-.291	.265	-1.103**	.413	-.851**	.301
Porn before	.613†	.313	.552	.587	.874*	.427	.743*	.322	.329	.601	.957*	.435
Victim characteristics												
Victim gender	1.871***	.284	-.361	.452	1.095**	.368	1.665***	.296	-.095	.473	.941*	.379
Victim age (≥ 16)												
≤ 12 years	-.614†	.335	-1.734***	.496	-2.092***	.367	-1.092**	.369	-1.166*	.546	-2.202***	.406
13 – 15 years	.232	.417	-1.199†	.687	-1.335**	.481	.036	.426	-1.166†	.689	-1.375**	.485
Situational Impediments												
Off-victim intimacy (Stranger)												
Known/friend							.558	.406	-.009	.477	-.480	.403
Family/partner							1.279**	.415	-1.266*	.608	.039	.421
-2 Log Likelihood			589.322						762.590			
Model chi-square			316.312***						354.824***			
Cox & Snell Pseudo R^2			.403						.439			

† $p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$

Note. Variable names were shortened due to space constraints; full variable names are available in-text and in Table 1; *B* = beta weights; SE = standard error.

Predictor	Block 5						Block 6					
	Rape Completion vs. Neither		Victim Injury vs. Neither		Both vs. Neither		Rape Completion vs. Neither		Victim Injury vs. Neither		Both vs. Neither	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Offender Lifestyle												
Employed	-.429†	.259	-.575	.405	-.349	.316	-.408	.261	-.619	.412	-.368	.320
Drug addicted	.260	.306	-.199	.431	.034	.352	.339	.311	-.196	.443	.057	.358
Disinhibitors												
Affect during (Other)												
Aggression/anger	-.238	.554	.818	.586	.838	.536	-.224	.554	.820	.591	.834	.539
Sexual arousal	.301	.266	-1.482*	.614	-.063	.345	.336	.269	-1.375*	.622	-.020	.351
Alcohol before	-.153	.274	-.798†	.434	-.615†	.325	-.181	.276	-.683	.444	-.568†	.329
Porn before	.790*	.331	.629	.643	1.080*	.471	.824*	.338	.300	.682	.829†	.474
Victim characteristics												
Victim gender	1.570***	.308	-.447	.520	.517	.423	1.596***	.313	-.563	.535	.490	.429
Victim age (≥ 16)												
≤ 12 years	-.737†	.423	-.154	.611	-1.053*	.474	-.690	.439	.221	.635	-.749	.493
13 – 15 years	.256	.464	-.562	.728	-.703	.540	.265	.474	-.395	.740	-.610	.553
Situational Impediments												
Off-victim intimacy (Stranger)												
Known/friend	.703	.439	.401	.517	-.112	.449	.736†	.443	.388	.528	-.130	.456
Family/partner	1.534**	.455	-.605	.651	.621	.477	1.515**	.459	-.575	.658	.569	.482
Offender MO												
Approach	-.690†	.382	-2.713***	.628	-2.359***	.433	-.676†	.403	-2.274**	.654	-2.071***	.456
Length of crime	-.988***	.253	-.757†	.405	-1.748***	.328	-.990***	.256	-.816*	.414	-1.823***	.335

Predictor	Block 5						Block 6					
	Rape Completion vs. Neither		Victim Injury vs. Neither		Both vs. Neither		Rape Completion vs. Neither		Victim Injury vs. Neither		Both vs. Neither	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Victim Resistance												
Type of resistance (Physical)												
None/passive							-.124	.402	-1.574**	.570	-1.038*	.435
Verbal							.508	.448	-1.725*	.761	-.848†	.503
-2 Log Likelihood			869.328						934.131			
Model chi-square			443.181***						474.405***			
Cox & Snell Pseudo R^2			.515						.539			

† $p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$

Note. Variable names were shortened due to space constraints; full variable names are available in-text and in Table 1; *B* = beta weights; SE = standard error.

Table 22. Preliminary sequential multinomial logistic regression model for victim injury and/or rape completion with "Both" as reference

Predictor	Block 1						Block 2					
	Neither vs. Both		Rape Completion vs. Both		Victim Injury vs. Both		Neither vs. Both		Rape Completion vs. Both		Victim Injury vs. Both	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Offender lifestyle												
Marital status	.353	.254	-.068	.208	.462	.359	.195	.283	-.163	.232	.463	.365
Employed	.262	.244	-.121	.205	-.166	.326	.243	.272	-.165	.226	-.103	.327
Alcohol addicted	.442†	.262	.313	.219	.136	.346	-.218	.314	-.131	.258	.245	.369
Drug addicted	.616*	.278	.611**	.233	-.311	.347	.042	.366	.170	.296	-.057	.393
Disinhibitors												
Affect during (Other)												
Aggression/anger							-2.169***	.474	-1.753***	.310	-.255	.347
Sexual arousal							.519†	.294	.650*	.258	-1.529*	.591
Alcohol before							1.241***	.306	.746**	.253	-.051	.385
Drug before							.486	.372	.299	.295	-.371	.391
Porn before							-1.050*	.405	-.384	.387	-.422	.586
Fantasies before							-.399	.290	.018	.259	-.479	.364
-2 Log Likelihood	198.772						826.113					
Model chi-square	32.162**						212.330***					
Cox & Snell Pseudo R^2	.051						.293					

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$

Note. Variable names were shortened due to space constraints; full variable names are available in-text and in Table 1; *B* = beta weights; SE = standard error.

Predictor	Block 3						Block 4					
	Neither vs. Both		Rape Completion vs. Both		Victim Injury vs. Both		Neither vs. Both		Rape Completion vs. Both		Victim Injury vs. Both	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Offender Lifestyle												
Marital status	.062	.306	-.014	.245	.396	.373	-.008	.311	.043	.250	.314	.381
Employed	.401	.295	-.137	.240	-.048	.337	.390	.299	-.051	.246	-.066	.343
Alcohol addicted	-.241	.341	-.019	.271	.224	.376	-.231	.342	-.006	.277	.205	.383
Drug addicted	-.324	.405	.043	.314	-.190	.404	-.309	.409	.104	.322	-.175	.410
Disinhibitors												
Affect during (Other)												
Aggression/anger	-1.371**	.507	1.283***	.329	.024	.376	-1.370**	.506	-1.348***	.336	.032	.378
Sexual arousal	.268	.320	.496†	.271	-1.597**	.606	.223	.324	.479†	.277	-1.743**	.612
Alcohol before	.870*	.336	.544*	.265	-.214	.403	.820*	.345	.493†	.279	-.267	.435
Drug before	.340	.410	.235	.312	-.382	.402	.313	.413	.223	.321	-.388	.407
Porn before	-.901*	.435	-.248	.407	-.266	.602	-.947*	.445	-.148	.420	-.536	.620
Fantasies before	-.118	.316	-.024	.270	-.343	.377	-.194	.324	-.214	.282	-.294	.389
Victim characteristics												
Victim gender	-1.147**	.384	.793*	.389	-1.381**	.472	-.989*	.393	.769†	.399	-.965*	.490
Victim age (≥ 16)												
≤ 12 years	2.050***	.371	1.456***	.284	.410	.471	2.111***	.416	1.056**	.322	1.037†	.532
13 – 15 years	1.359**	.484	1.548***	.377	.083	.662	1.393**	.489	1.404***	.386	.217	.663
Victim background	.114	.300	-.215	.247	.359	.369	.173	.306	-.095	.254	.292	.377

Predictor	Block 3						Block 4					
	Neither vs. Both		Rape Completion vs. Both		Victim Injury vs. Both		Neither vs. Both		Rape Completion vs. Both		Victim Injury vs. Both	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Situational Impediments												
Time of crime							.123	.314	.093	.264	.068	.388
Off-victim intimacy (Stranger)												
Known/friend							.549	.412	1.049**	.348	.515	.387
Family/partner							.021	.437	1.262***	.357	-1.195*	.549
-2 Log Likelihood			1045.444						1118.051			
Model chi-square			326.064***						362.049***			
Cox & Snell Pseudo R^2			.413						.446			

† $p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$

Note. Variable names were shortened due to space constraints; full variable names are available in-text and in Table 1; *B* = beta weights; SE = standard error.

Predictor	Block 5						Block 6					
	Neither vs. Both		Rape Completion vs. Both		Victim Injury vs. Both		Neither vs. Both		Rape Completion vs. Both		Victim Injury vs. Both	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Offender Lifestyle												
Marital status	-.203	.340	.015	.269	.341	.392	-.204	.348	.052	.280	.344	.397
Employed	.439	.327	015	.268	-.214	.362	.466	.332	.073	.277	-.238	.366
Alcohol addicted	.035	.384	.112	.307	.439	.409	.074	.389	.193	.315	.491	.419
Drug addicted	-.163	.442	.096	.340	-.134	.429	-.211	.447	.137	.347	-.122	.437
Disinhibitors												
Affect during (Other)												
Aggression/anger	-.861	.552	-.961**	.363	-.008	.393	-.834	.557	-.893*	.373	.001	.397
Sexual arousal	-.096	.360	.221	.302	-1.532*	.631	-.160	.367	.181	.312	-1.530*	.639
Alcohol before	.506	.383	.397	.306	-.290	.451	.512	.387	.379	.313	-.257	.464
Drug before	.137	.441	.161	.339	-.460	.425	.130	.446	.125	.346	-.499	.434
Porn before	-.966†	.498	-.195	.462	-.201	.670	-.717	.509	.107	.473	-.259	.704
Fantasies before	-.338	.379	-.240	.321	-.375	.445	.361	.390	-.292	.335	-.504	.448
Victim characteristics												
Victim gender	-.439	.452	1.180**	.450	-.911†	.515	-.343	.465	1.312**	.468	-.990†	.522
Victim age (≥ 16)												
≤ 12 years	.896†	.499	.172	.383	.813	.553	.572	.520	-.148	.407	.892	.557
13 – 15 years	.587	.553	.816†	.425	.145	.676	.481	.570	.688	.442	.227	.668
Victim background	.050	.336	-.094	.273	.271	.394	-.039	.341	-.159	.280	.241	.401
Situational Impediments												
Time of crime	.351	.350	.092	.292	.209	.408	.166	.361	-.068	.304	.345	.417
Off-victim intimacy (Stranger)												
Known/friend	.149	.464	.793*	.366	.557	.391	.130	.474	.805	.379	.558	.394
Family/partner	-.591	.503	.957*	.381	-1.132*	.571	-.511	.511	.999*	.393	-1.093†	.570

Predictor	Block 5						Block 6					
	Neither vs. Both		Rape Completion vs. Both		Victim Injury vs. Both		Neither vs. Both		Rape Completion vs. Both		Victim Injury vs. Both	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Offender MO												
Premeditation (Structured)												
None	-.642	.443	-.654†	.362	.292	.509	-.686	.455	-.639†	.376	.362	.518
Unstructured	-.112	.400	.094	.328	-.210	.474	-.052	.412	.137	.344	-.187	.479
Approach	2.083*	.825	1.137†	.626	.187	1.104	1.899*	.839	.951	.655	.347	1.084
Strategies (Violent)												
No strategy	.056	.830	.219	.640	-.897	1.075	-.122	.840	-.017	.664	-.769	1.077
Nonviolent	.388	.834	.569	.640	-.145	1.101	.282	.835	.457	.653	-.192	1.049
Weapon	.460	.488	.976**	.321	.012	.384	.589	.500	1.207***	.339	-.017	.386
Length of crime	1.867***	.351	.773*	.305	1.088**	.393	1.940***	.358	.864**	.315	1.124**	.399
Victim Resistance												
Type of resistance (Physical)												
None/passive							1.164*	.451	1.140**	.354	-.670	.527
Verbal							.991†	.522	1.670***	.380	-.921	.708
-2 Log Likelihood			1067.667						1035.105			
Model chi-square			474.998***						511.143***			
Cox & Snell Pseudo R^2			.539						.566			

† $p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$

Note. Variable names were shortened due to space constraints; full variable names are available in-text and in Table 1; *B* = beta weights; SE = standard error.

Table 23. Parsimonious sequential multinomial logistic regression model for victim injury and/or rape completion with "Both" as reference

Predictor	Block 1						Block 2					
	Neither vs. Both		Rape Completion vs. Both		Victim Injury vs. Both		Neither vs. Both		Rape Completion vs. Both		Victim Injury vs. Both	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Offender lifestyle												
Drug addicted	.713**	.260	.747**	.217	-.279	.320	.151	.294	.336	.243	-.203	.327
Disinhibitors												
Affect during (Other)												
Aggression/anger							-2.169***	.471	-1.746***	.308	-.219	.341
Sexual arousal							.544†	.285	.618*	.250	-1.375*	.582
Alcohol before							1.280***	.274	.766**	.225	-.016	.345
Porn before							-1.078**	.397	-.345	.382	-.559	.570
-2 Log Likelihood	32.535						207.636					
Model chi-square	19.986***						193.466***					
Cox & Snell Pseudo R^2	.032						.271					

† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$

Note. Variable names were shortened due to space constraints; full variable names are available in-text and in Table 1; *B* = beta weights; SE = standard error.

Predictor	Block 3						Block 4					
	Neither vs. Both		Rape Completion vs. Both		Victim Injury vs. Both		Neither vs. Both		Rape Completion vs. Both		Victim Injury vs. Both	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Offender Lifestyle												
Drug addicted	-.297	.325	.163	.259	-.325	.339	-.278	.325	.214	.263	-.292	.347
Disinhibitors												
Affect during (Other)												
Aggression/anger	-1.377**	.505	-1.273***	.326	.024	.368	-1.374**	.505	-1.326***	.333	.059	.370
Sexual arousal	.256	.311	.485†	.265	-1.512*	.596	.207	.314	.492†	.269	-1.652**	.603
Alcohol before	.872**	.298	.586*	.238	-.197	.363	.849**	.299	.564*	.242	-.263	.374
Porn before	-.883*	.426	-.261	.401	-.331	.586	-.972*	.433	-.210	.411	-.627	.602
Victim characteristics												
Victim gender	-1.093**	.367	.771*	.377	-1.457**	.464	-.924*	.378	.720†	.387	-1.045*	.480
Victim age (≥ 16)												
≤ 12 years	2.072***	.366	1.492***	.279	.372	.458	2.214***	.406	1.112***	.311	1.053*	.513
13 – 15 years	1.382**	.480	1.551***	.374	.121	.656	1.435**	.484	1.403***	.384	.194	.651
Situational Impediments												
Off-victim intimacy (Stranger)												
Known/friend							.452	.401	1.038**	.339	.466	.378
Family/partner							-.108	.419	1.250***	.343	-1.310*	.536
-2 Log Likelihood			450.932						627.761			
Model chi-square			311.668***						351.726***			
Cox & Snell Pseudo R^2			.399						.437			

† $p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$

Note. Variable names were shortened due to space constraints; full variable names are available in-text and in Table 1; *B* = beta weights; SE = standard error.

Predictor	Block 5						Block 6					
	Neither vs. Both		Rape Completion vs. Both		Victim Injury vs. Both		Neither vs. Both		Rape Completion vs. Both		Victim Injury vs. Both	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Offender Lifestyle												
Drug addicted	-.109	.352	.219	.279	-.221	.353	-.143	.359	.265	.291	-.234	.258
Disinhibitors												
Affect during (Other)												
Aggression/anger	-.763	.545	-.854*	.353	-.003	.378	-.739	.548	-.804*	.364	-.002	.381
Sexual arousal	.026	.347	.337	.291	1.397*	.610	-.021	.354	.321	.299	-1.330*	.615
Alcohol before	.667*	.326	.550*	.259	-.185	.381	.631†	.331	.491†	.266	-.099	.387
Porn before	-1.130*	.471	-.315	.438	-.434	.627	-.858†	.475	-.012	.440	-.512	.659
Victim characteristics												
Victim gender	-.518	.427	1.024*	.425	-.957†	.494	-.472	.434	1.107*	.436	-1.038*	.500
Victim age (≥ 16)												
≤ 12 years	.992*	.480	.217	.364	.893†	.529	.613	505	-.131	.389	.957†	.537
13 – 15 years	.711	.542	.875*	.414	.050	.658	.582	.559	.748†	.428	.120	.658
Situational Impediments												
Off-victim intimacy (Stranger)												
Known/friend	.120	.450	.820*	.352	.497	.382	.128	.457	.854*	.363	.489	.385
Family/partner	-.691	.478	.877*	.361	-1.199*	.546	-.634	.483	.898*	.370	-1.127*	.544
Offender MO												
Approach	2.176***	.450	1.417***	.343	-.290	.624	1.842***	.477	1.055**	.376	-.156	.644
Weapon	.529	.479	.973**	.313	-.029	.371	.652	.492	1.184***	.330	-.045	.372
Length of crime	1.665***	.330	.641*	.289	.960*	.371	1.735***	.336	.709*	.298	.976**	.373

Predictor	Block 5						Block 6					
	Neither vs. Both		Rape Completion vs. Both		Victim Injury vs. Both		Neither vs. Both		Rape Completion vs. Both		Victim Injury vs. Both	
	B	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Victim Resistance												
Type of resistance (Physical)												
None/passive							1.136*	.441	1.070**	.343	-.527	.500
Verbal							.932†	.506	1.588***	.366	-.837	.687
-2 Log Likelihood			811.627						868.615			
Model chi-square			450.597***						485.619***			
Cox & Snell Pseudo R^2			.521						.547			

† $p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$

Note. Variable names were shortened due to space constraints; full variable names are available in-text and in Table 1; *B* = beta weights; SE = standard error.

Overall, both models demonstrated strong statistical support for the effects of the final independent variables. When “Neither” was the reference category, 11 variables maintained significance in the model: employed; drug addicted; affect during the crime; alcohol before the crime; pornography before the crime; victim gender; victim age; offender-victim intimacy; approach to commit the crime; length of the crime; and type of victim resistance. These variables provided significant additions to the model at all blocks, according to -2 LL (-2 Log Likelihood) and *chi*-square statistics. As well, the goodness-of-fit increased with each block addition, according to the Cox and Snell Pseudo R^2, from .038 in Block 1, to .275 in Block 2, to .403 in Block 3, to .439 in Block 4, to .515 in Block 5, to .539 in Block 6. Similarly, when “Both” was the reference category, 11 variables demonstrated significant additions to the model: drug addicted; affect during the crime; alcohol before the crime; pornography before the crime; victim gender; victim age; offender-victim intimacy; approach to commit the crime; use of a weapon; length of the crime; and type of victim resistance. These variables were also significant at each block, according to -2 LL and *chi*-square statistics, and the Cox and Snell Pseudo R^2 increased with each block addition, from .032 in Block 1, to .271 in Block 2, to .399 in Block 3, to .437 in Block 4, to .521 in Block 5, to .547 in Block 6.

The most influential variable when examining the combination outcome variable was the offender’s initial approach to commit the crime. A coercive approach was more likely to lead to the more physically injurious outcomes. Thus, compared to neither rape completion nor victim injury, cases in which victim injury (B = -2.274, p < .01) or both of these outcomes occurred (B = -2.071, p < .001) were more likely to involve a coercive approach. As well, compared to both rape completion and victim injury, a noncoercive approach was more likely to lead to neither outcome (B = 1.842, p < .001) or penetration as the only outcome (B = 1.055, p < .01) and, thus, a coercive offender approach was more likely to lead to the combination of outcomes.

A close second in terms of influence in both models was the length of the crime, in this case affecting all outcomes. That is, compared to cases in which neither victim injury nor rape completion occurred, when the crime was longer than 15 minutes in duration, both of these outcomes were more likely (B = -1.823, p < .001), rape completion alone was more likely (B = -.990, p < .001), and victim injury alone was more likely (B = -.816, p

< .05). Similarly, compared to cases in which both victim injury and rape completion were part of the assault, when the duration of the crime was shorter than 15 minutes, an outcome involving neither consequence was most likely (B = 1.735, p < .001), followed by injury only (B = .976, p < .01), and penetration only (B = .709, p < .05).

An interesting relationship emerged with respect to the victim's gender. Rape completion was found to be the significantly most likely outcome for female victims, whether compared to neither rape completion nor victim injury (B = 1.596, p < .001) or both rape completion and victim injury (B = 1.107, p < .05). In support of this finding, it was also determined that male victims are more likely to be subjected to an injurious assault than for there to be elements of injury and sexual penetration (B = -1.038, p < .05).

Although demonstrating a stronger effect when "Both" was used as the reference category, the type of victim resistance within the assault was also a significant factor within both models. When a victim verbally – as opposed to physically – resisted, she was more likely to be subjected to rape completion only than both rape completion and victim injury (B = 1.588, p < .001), as well as less likely to suffer victim injury than neither outcome (B = -1.725, p < .05). Additionally, when a victim either did not resist or resisted passively – again, as opposed to physically resisting – she was less likely to be injured (B = -1.574, p < .01) or injured and raped (B = -1.038, p < .05) compared to neither of these outcomes occurring. Similarly, this lack of resistance was more likely to lead to either rape completion only (B = 1.070, p < .01) or neither outcome (B = 1.136, p < .05) compared to both penetration and injury.

The use of a weapon was an important predictor, although only within the model that used "Both" as the reference category. Within this model, it was found that the presence of a weapon increased the likelihood that the victim will be subjected to injury and rape completion rather than rape completion alone (B = 1.184, p < .001). Interestingly, however, there was no effect of this variable differentiating between cases in which neither outcome occurred compared to both injury and penetration.

The relationship between the victim and offender also revealed some remarkable effects on crime outcome. Most notably, when the offender and victim were family members or partners, compared to stranger assaults, these crimes were more likely to

include rape completion alone, whether compared to neither outcome (B = 1.596, p < .001) or both outcomes (B = .898, p < .05). Relatedly, within-family assaults were less likely than stranger sex crimes to suffer victim injury only, compared to both injury and penetration (B = -1.127, p < .05). It was also found that a known, non-familial victim was also more likely to encounter rape completion only rather than both injury and rape completion (B = .854, p < .05).

The offender's predominant affect during the crime demonstrated a relationship to the final outcome of the crime as well, although the strength of this relationship waned somewhat by the sixth block. If the offender's principal affect was one of sexual arousal, this was the least likely affect to have victim injury only as the outcome, compared to neither injury nor rape completion (B = -1.375, p < .05) and both injury and rape completion (B = -1.330, p < .05). Comparatively, when the offender's anger was his emotional focus, rape completion alone was unlikely when compared to both penetration and victim injury (B = -.804, p < .05). The relationship between affect and outcome was stronger in previous blocks, showing that anger was more likely to result in either victim injury only (B = 1.415, p < .05) or both injury and penetration (B = 1.365, p < .01) than an outcome involving neither of these results and that sexual arousal was more likely to lead to neither outcome than to result in victim injury (B = -1.869, p < .01). Although these numbers are from Block 4 of the model in which "Neither" was used as a reference category, these effects of the offender's emotions were supported in the other model as well. Therein, an offender who was angry was found to be more likely to both injure and penetrate his victim than to do neither of these (B = -1.374, p < .01) or to only complete the rape with no injury (B = -1.326, p < .001), whereas a sexually aroused offender was more likely to offend in both of these ways than to only injure his victim (B = -1.652, p < .01).

The last variable that maintained significance to the final block (although only when "Neither" was the reference category) was whether pornography was used prior to the crime. When pornography was used, neither penetration nor injury was the most likely outcome, compared to rape completion only (B = .824, p < .05) and both injury and rape completion (B = 1.080, p < .05 when "Neither" is reference, and B = -1.130, p < .05 when "Both" is reference), although this latter result only maintained significance to Block 5 in both models.

The victim's age was determined to be a significant addition to both models through to Block 5. As with the offender's affect, the strength of this variable was much greater within previous blocks. Within Block 5, it was found that child victims were more likely than adults to encounter neither penetration nor victim injury in their assaults compared to assaults with both of these outcomes (B = -1.053, p < .05 when "Neither" is reference, and B = .992, p < .05 when "Both" is reference). As well, adolescents were more likely than adults to suffer rape completion only rather than both outcomes (B = .875, p < .05). These and other relationships between this variable and outcome were stronger within Block 4, however. Within this block of both models, it was found that child victims, compared to adults, are significantly more likely to be subjected to neither victim injury nor rape completion as opposed to instances of rape completion alone (B = -1.092, p < .01), victim injury alone (B = -1.166, p < .05), or, to a greater extent, both of these outcomes (B = -2.202, p < .001). Relatedly, compared to both assault outcomes, children are more likely to suffer neither outcome (B = 2.214, p < .001), rape completion only (B = 1.112, p < .001), or victim injury only (B = 1.053, p < .05), thus making an offense with both penetration and injury the most uncommon type of offense for child victims. In terms of adolescent victims, these victims were more likely to be subjected to neither offense outcome than both (B = -1.375, p < .01 when "Neither" is reference, and B = 1.435, p < .01 when "Both" is reference) as well as rape completion only rather than both outcomes (B = 1.403, p < .001).

Another variable that significantly contributed to both models, but did not maintain significance to the final block, was the use of alcohol prior to the crime. Within the model in which "Both" was the reference category, this variable was significant through to Block 5, in which alcohol was found to increase the likelihood of both penetration and injury occurring during an assault compared to neither outcome (B = .667, p < .05) and rape completion only (B = .550, p < .05). Within Block 4 of the model in which the reference was "Neither", a similar relationship was found, with alcohol use prior to the crime increasing the chances of victim injury only (B = -1.103, p < .01) and both outcomes (B = -.851, p < .01) as compared to neither of these crime outcomes.

A peculiar relationship was found within the model comparing outcome combinations to a lack of victim injury and rape completion in terms of whether an offender

was employed at the time of the assault. Therein, an offender's employment status was not a significant addition to the model in the first two blocks, but became significant within Block 3, only to lose significance again in Block 4. Thus, there appears to be an interaction effect with the victim characteristics that were entered in Block 3, but that was not strong enough to maintain significance into subsequent blocks. This finding showed that an employed offender was more likely to use penetration within his assault than to neither penetrate nor injure his victim (B = -.515, p < .05).

The final variable that was present within both models, but was only significant upon its addition in the first block, was whether the offender was addicted to drugs at the time of the offense. Within Block 1, this relationship suggested that a drug addicted offender is more likely to commit a crime with resultant rape completion and victim injury combined rather than neither of these outcomes (B = -.745, p < .01 when "Neither" is reference, and B = .713, p < .01 when "Both" is reference) or a crime with rape completion only (B = .747, p < .01). Furthermore, such an offender is more likely to injure his victim than to neither injure nor complete the sexual assault (B = -1.047, p < .01).

5.2. Discussion

While an examination of the effects of various offender, situational, and crime factors on each individual offense outcome has yielded important relationships in the previous studies, the combination of two of the most tangible, severe crime outcomes into one set of analyses has proven to be very valuable. The very nature of a sexual assault is complex, and the greater degrees of complexity that can be incorporated into analyses of the subject will only further strengthen the confidence that can be placed in such research. The current study has amalgamated the victim injury and rape completion outcomes so that the interrelationships between these and other relevant crime factors can be evaluated more fully and with increased understanding.

One of the most significant relationships determined within these analyses was the importance of the offender's original approach. A coercive approach particularly differentiated the most injurious offenses from those with less severe or strictly sexual outcomes. This relationship between violence at the outset of a crime and subsequent

violence is not a new – or surprising – finding. While it is not always the case that an offender who is overtly coercive in his original offending strategy will continue to be so throughout the crime (it may, for some, serve as a mechanism to reduce potential victim resistance, instill fear, or induce offender confidence, for example), it is often the case that this level of coercion will persist through later stages of the assault (Balemba et al., 2012; Balemba & Beauregard, 2012). However, what is notable about the relationship elucidated within the current models is that, while a coercive approach is associated with a violent outcome, it is not associated with rape completion in the absence of injury. Thus, the level of coercion at the beginning of the crime is not a factor in differentiating those crimes that result in penetration without injury from cases with neither injury nor rape completion; put another way, a coercive approach does not increase the likelihood of rape completion.

This finding supports the idea that an offender has a particular mindset that often persists through the crime and affects the decisions that are made from the commencement of the crime to the final stage. That is, there exist offenders whose primary intentions are to rape their victims due to a greater focus on the sexual aspect of the assault. These offenders appear to be less likely to use coercive methods at the outset and may, instead, use deception or manipulative techniques to eliminate the need for physically coercive measures. These offenders use as little violence as necessary throughout the assault to achieve their goal of a penetrative offense, which then results in less injury to the victim. Such a crime trajectory opposes that of the overtly violent offenders who may desire more than a sexual exchange or whose primary focus may not be sexual at all but, rather, violent in nature. These offenders will begin the crime coercively and continue on this route throughout the crime, resulting in victim injury or a combination of injury and penetration.

A relationship comparable to the dynamic associated with offender approach was determined to exist with the level of victim resistance. That is, both verbal and passive resistance strategies were associated with less injurious outcomes, but led to rape completion no less often than the preferred outcome of neither penetration nor injury. However, physical victim resistance was more likely to result in victim injury or both injury and rape completion. Therefore, physicality on the part of the victim (although completely justified), increased her risk of further violence from the offender, leading to injury either

alone or in combination with rape completion. While this is another relationship that has received some support within previous research (Balemba et al., 2012; Balemba & Beauregard, 2012), there is also contention surrounding this issue, wherein other research has found no association between increased victim resistance and offender violence (Brecklin & Ullman, 2005; Ullman, 1998; Ullman & Knight, 1993, 1995). The current results support the idea that physical resistance may be associated with rape avoidance (as in the cases in which only victim injury occurred), but this may be due to the offender's original intent rather than any actual effect of resistance, particularly given the equal likelihood of an outcome that involves injury and rape completion. Regardless of the effect on rape avoidance, the current results certainly support the connection between physical resistance and subsequent increased offender violence that results in the injury or death of the victim.

Connecting the findings regarding victim resistance and the offender's approach may elucidate further the paths that some of these more violent and injurious crimes actually follow. Given that a coercive approach and physical resistance are both associated with outcomes involving victim injury or both injury and rape completion, these methods are likely related or, at the very least, are to be found within the same crime event. Thus, there are two major ways these factors can be hypothesized to co-exist as such. One distinct possibility is that coercion at the outset increases the likelihood of physical resistance from the victim – a relationship with a great deal of support in the literature (Balemba et al., 2012; Ullman, 1998, 2007a; Ullman & Knight, 1992) – and this resistance then further increases the offender's aggression, leading to injury. However, it may be equally likely that the level of coercion with which the offender begins the assault will persist throughout the crime regardless of the victim's actions, but this coercion is likely to evoke physical resistance from the victim. Thus, the behaviours would occur in tandem, but the effect of physical resistance would be more correlational than causative, more likely to happen in more violent crimes, but not affecting the outcome. However, given the research specifically examining the offender's reaction to victim resistance (which, thus, eliminates this ambiguity) that demonstrates a direct relationship between physical resistance and increased violence (Balemba et al., 2012; Balemba & Beauregard, 2012), including the findings from the previous study, the causative relationship is the more likely relationship. Thus, the most likely scenario is one that involves an increase of victim

resistance in response to offender aggression at the outset of the crime and then subsequent reactive offender violence, which leads to outcomes that involve significant victim injury. However, as a caveat, it is likely the case that an offender who begins the assault in a coercive manner is more likely to react violently to physical resistance and injure his victim than an offender who attempts to use less coercive tactics in the beginning stages. While physical resistance increases the chances of these harmful reactive responses in any case, offenders already in a coercive, violent mindset would likely be more susceptible to provocation.

The effects of victim-offender intimacy are also relevant to this discussion of offender types, as the current results may play a vital role in the offending sequence an offender follows to commit his crime. It was determined that the result of a sexual assault against a victim who is a family member or partner of the offender is most often rape completion. This was true regardless of a comparison to a worse ("Both") or better ("Neither") outcome. Furthermore, these family victims were more likely to suffer a combination of injury and penetration rather than just injury alone. Collectively, these results suggest that the main priority of those who offend against victims within their family is sexual in nature and that these crimes often do not result in physical injury to the victim (and that, if injury does occur, it is in tandem with rape completion).

The most likely explanation of this finding is that sexual violence within the family (whether the victim is a spouse or a child) often takes place over a lengthy period of time and multiple assaults transpire over this period (as in the case of one type of "successful" sex offender; Lussier, Bouchard, & Beauregard, 2011). Thus, if an offender is committing many crimes over the course of years, for example, in order to maintain this continued access to his victim(s), secrecy would be paramount. If the victims were to be assaulted to the point of requiring hospital attention or, worse, died at the hands of their assailant, the abuse would be more likely to come to the attention of law enforcement authorities and this ongoing access would be halted, the offender no longer able to continue to commit his crimes. Thus, in such a case, repeated victimization requires the absence of significant victim injury, suggesting that continuing penetrative offending is the offender's primary goal. Additionally, due to the high degree of access the offender has to his victim in this case (as the victim very likely resides with him at least some of the time), a penetrative

offense would be much easier to accomplish compared to cases involving strangers or acquaintances.

While there also was a finding that known, non-family member victims were also more likely than strangers to be only raped rather than both raped and injured, this is likely a function of the same process, but simply not as pronounced. That is, if an offender assaults his friend or someone that knows him, he very likely does not want to draw unwanted attention to the assault by placing his victim in the hospital (or the morgue). While circumstances can vary a great deal, it seems to be a general trend that a known victim is more often the target of sexually-oriented violence more so than physically damaging violence.

Fitting this information into the growing crime sequences, an offender who chooses to commit a sexually-motivated crime against a family member will likely not need to use coercive techniques to ensure compliance, usually due to the power he wields over his victim (Ullman, 2007a). Thus, victim resistance would be minimal (Ullman, 2007a) and coercive approaches would very likely occur much less often within these spousal assaults or intrafamilial child sexual abuse situations. This relates to why the outcomes are more likely to involve rape, but not injury. From the opposite perspective, a sexual offense committed by a stranger would be more likely to involve a coercive approach (such as the so-called blitz approach (Hazelwood & Warren, 1990)), which would, therefore, evoke a greater victim resistance response and, subsequently, lead to an increased likelihood of victim injury or death, often in combination with rape completion.

The gender of the victim had a somewhat similar relationship to outcome as the victim-offender relationship. Specifically, females were most likely to be the victim of a completed rape, with this result significantly most likely whether compared to the best ("Neither") or worst ("Both") possible outcome combinations. Relatedly, males were found to be more likely to face victim injury alone than both injury and penetration during an assault. This relationship is well supported within the literature, whether due to the greater vulnerability of female victims (Kimerling et al., 2002), the lower incidence and reporting rates of male victims of a rape (Bullock & Beckson, 2011), or the high proportion of completed sexual assaults that occur within a heterosexual intimate partnership in which

the male is usually the aggressor (Baumeister et al., 2002; Gidycz et al., 2006; Ullman, 2007a).

This finding with respect to victim gender could add to the crime sequences in terms of the likelihood for less physically harmful assaults very often being associated with a female victim. That is, the vast majority of the non-injurious sexual crimes would be committed against female victims, particularly those that result in rape completion alone. Offenders may attempt to use noncoercive techniques to assault a female victim (such as the popular use of Rohypnol, the "date rape drug", or long-term coercion within a family or domestic violence situation). These techniques would be less likely to evoke high degrees of resistance and, thus, result in rape completion, but likely not victim injury. While injuries would not be exclusive to male victims, as there are simply not enough male victims to account for all of the incidents that resulted in victim injury, the majority of this relatively small group (particularly the group that actually reported the crime) would fall into the more coercive, injury-inducing crimes, which may also be those more likely to be committed by strangers. Furthermore, at the group level, men would be more likely than women to physically resist a sexual assault, if due to nothing else than male pride – or the related societal expectation for a man to resist his attacker (Davies, Rogers, & Bates, 2008) – and the increased stigma associated with the sexual assault of men (Bullock & Beckson, 2011). This increased level of resistance would necessitate physicality on the part of the offender if he was determined to continue the assault.

The offender's affect also showed some interesting, but not unexpected, relationships to crime outcome. Specifically, sexual arousal was associated with outcomes involving rape completion (either alone or combined with injury) and anger was associated with outcomes involving victim injury (again, either alone or combined with penetration). Thus, an angry offender will more likely injure and a sexually aroused offender will more likely focus on the sexual aspect of the assault. As has been discussed previously, this may be due to the importance of the offender's mindset and priority during the commission of the crime. That is, if the offender's primary emotion is sexual arousal, then the fact that his subsequent actions are related to sex is not a surprise. If this emotion is dominant, all decisions that are made during the crime will be related to this emotion. Similarly, if anger

is the dominant emotion, the offender will make decisions out of anger, which will more likely involve aggressive behaviours that result in injury to the victim.

Related to the overall crime sequences, an angry offender will be more likely to utilize coercive and aggressive tactics to commit the crime, thus incorporating a coercive approach. This will then affect his choice of victim, perhaps resulting in a male stranger victim on whom the offender can take out his anger and aggression. However, this could also be a case in which the victim is a female, as many offenders are vindictive, with a specific hatred of women and a desire to hurt them (Knight & Prentky, 1990). Regardless, the overall increased coercion as a result of the offender's anger would increase victim resistance levels as well as subsequent victim injury (possibly combined with rape completion, specifically in cases involving vindictive behaviours targeting women). Alternatively, an offender who has an emotional focus on sex will more likely seek out a victim from whom he believes he can obtain this goal, whether due to vulnerability or access – both of which increase the likelihood that the victim would be female and a family member or at least a known acquaintance. Again, manipulative techniques are often more effective at increasing the chances of completion rather than outright violence, which can provoke the victim to resist. Thus, this offender will avoid outright coercion, which will decrease resistance, and allow the rape to be completed.

The presence or absence of a weapon also demonstrated an interesting relationship, wherein the presence of a weapon increased the chances of injury and rape completion compared to rape completion alone. However, it did not differentiate the worst outcome ("Both") from the best outcome ("Neither"), nor were any other significant distinctions found. Thus, cases in which injury and rape completion both occurred were likely to involve the use of a weapon (and cases with neither of these outcomes were not significantly different in the chances of a weapon being present), while cases of rape completion without injury likely did not involve a weapon. This complicated relationship demonstrates both the potential danger of a weapon as well as the types of crimes that occur in the absence of a weapon. Cases in which it increased the danger were very likely related to its use to inflict pain and injury on the victim. The fact that a weapon is present could itself indicate the offender's willingness to use it and, thus, his mindset and priority in his offending. He is already more violent and decisions throughout the crime will reflect

this, often resulting in a worse outcome for the victim in terms of victim injury. However, a crime in which no weapon is present is still likely to result in rape completion, suggesting different, but effective, measures used to gain victim compliance without the need for violence or physical pain.

In terms of the offending sequences, the offender who chooses to use a weapon is more dangerous. He is likely the offender who is also angry, perhaps choosing a stranger target who may or may not be male, depending on the offender's specific motivations for his anger. In all likelihood, this offender will use coercive measures from the outset, regardless of when the weapon is actually brandished, and will, thus, encounter higher levels of victim resistance, to which he responds aggressively, resulting in injury to the victim and possibly rape completion as well. Comparatively, the offender without a weapon may be an intrafamilial offender who does not wish to cause injury or pain to his victim. He is likely simply sexually aroused and seeking an easy target to satisfy his needs, such as a woman or young girl in the home. He is likely manipulative rather than overtly violent in his approach, which would not produce the same degree of resistance as the more violent offense type. Thus, completion of the assault is likely with little to no extraneous physical injury to the victim.

One of the most influential variables in both models is the length of the crime, the results of which are important for all outcome-based crime types within the current study. In general, it was determined that cases that involved injury and penetration were the most likely to be a crime of longer duration, followed by those with either injury or penetration alone, all significantly longer in duration (longer than 15 minutes) compared to cases with neither outcome. Furthermore, the largest distinction lay between the best ("Both") and worst ("Neither) possible outcome combinations, with the best arising from a crime of shorter duration. Overall, this is informative about how much an offender can reasonably do within a given timeframe. That is, the more time an offender takes to commit his crimes, the greater the likelihood that his offenses will be either injurious, penetrative, or both. This has been supported in the previous literature, particularly with respect to an increased level of violence during offenses that take more time (Balemba et al., 2012; Balemba & Beauregard, 2012; Mieczkowski & Beauregard, 2010). Put simply, the more an offender wishes to do during his crime, the longer he will take to do it and, relatedly, the longer the

crime takes, the more an offender is able to do to his victim, both in terms of physical violence and sexual intrusiveness.

Within the proposed sequences of offending, an offender who takes longer to commit his crime could be either of the two main assailant types, which is why this very important factor was not addressed until this point in the discussion. The overly coercive, violent, and injurious offender who chooses a stranger, possibly male, target, uses a weapon, and is fueled by anger will likely commit a crime that is of relatively long duration to ensure he can relieve his anger and incorporate all of the offensive behaviours that will satisfy his needs. However, the manipulative, sexually aroused offender whose focus is the sexual behaviours within the crime and who may offend against his wife or child and not use a weapon or inflict injuries would also be more likely to commit a crime of longer duration. While his focus would differ (sex rather than violence), the effect on crime duration would be the same.

The use of pornography had an almost contradictory effect on the crime outcome, with pornography use found to be associated with the least violent and intrusive offenses. When pornography was not used, these offenses were more likely to incorporate rape completion or both rape completion and victim injury. However, while research denotes the aggravating impact of pornography on the incidence or general likelihood of committing a sexual offense, suggesting that pornography exposure increases an offender's likelihood of sexually offending (Donnerstein & Berkowitz, 1981; Malamuth et al., 2000; Marshall, 1988; Marshall & Barbaree, 1990; Seto et al., 2001; Williams et al., 2009), this does not imply that, once an offense has begun, an offender who has consumed pornography will have more intrusive or injurious crime outcomes. In fact, as these findings suggest, an offender who has viewed pornography prior to committing his crime may have been fueled to commit the offense at that time due to the pornography exposure, but would not require sexual gratification from the crime, as he likely achieved this during his pornography consumption. Furthermore, if an offender is motivated by sexual arousal, as has been discussed above, violence is less likely than if his affect was angry or if some other emotion was dominant. If an offender has been affected by pornography exposure, and this has led him to seek out an offending opportunity, then sexual behaviours will most certainly be among his top priorities, although this does not

necessarily imply the need for penetration. Thus, although a somewhat complex relationship, the effect of pornography is actually a mitigating, rather than aggravating one in terms of offense outcome.

The overall findings with respect to the direct effect of pornography use have been supported within the previous literature. Specifically, a study conducted by Mancini, Reckdenwald, and Beauregard (2012) discovered a “cathartic effect” of pornography, wherein pornography use just prior to a sexual assault was related to lower degrees of violence and resultant physical injury to the victim. Although the speculative reasoning for this relationship was proposed to be due to the offender’s intent being sexual rather than violent (Mancini et al., 2012), the findings are in line with those of the present study, which supported the decrease in violence within an assault following pornography consumption. However, the current study suggests that rape completion is also “tempered” or less likely after pornography exposure.

The offender who views pornography just prior to his crime will commit a different crime altogether compared to the violent or nonviolent sexual offending sequences that have been discussed. This offender is nonviolent and, while sexual arousal is likely the dominant emotion, he is not as motivated to complete the sexual assault. Thus, while this information is valuable, this type of crime would serve as a separate offending sequence. Due to the overall lack of violence and intrusiveness, this crime would likely begin with a noncoercive approach, could target any victim type, although likely a known victim and the crime might simply end when the victim resists beyond what the offender was prepared to overcome. Even completing a non-penetrative sexual assault, such as fondling or flashing, might be enough to continue to fuel such an offender’s fantasies and that may be all he requires of his crimes.

Other factors that did not maintain significance throughout either model can still be informative as to the different offending sequences that exist. The age of the victim was found to be related to both injury and penetration, with young child victims being less likely to be subjected to either of these outcomes alone or both in combination. Essentially, child victims were most often assaulted in such a way that did not result in victim injury or rape completion. Comparatively, adults were most likely to suffer both injury and penetration,

but were also more likely than children to be injured or raped. Additionally, adolescent victims were likely to either be raped only or neither raped nor injured.

These results may be related to the type of “relationships” that are often believed by the offender to exist between himself and the victim. Due to the presence of cognitive distortions, an offender who chooses child victims may believe he and the child are in a consensual relationship or that his behaviours do not hurt the child (Ward & Keenan, 1999). Such distortions would justify his continued abuse of the child, but also decrease the likelihood that these offenses would involve injury or rape completion. Alternatively, offenses against adult victims are not so restrained and an offender can justify with much greater ease the necessity of using force on an adult victim or penetration, even forced penetration, being an acceptable practice with a fellow adult. Furthermore, abuse within a marital or otherwise consensual relationship – also known as courtship rape (Baumeister et al., 2002) – may be fed by an offender’s justification based on previous sexual interaction with the victim. Many offenders incorrectly believe that, if consensual sexual relations have occurred in the past, this serves as consent for all future sexual activity (see Baumeister et al. (2002) for an in-depth discussion of this phenomenon).

Factoring this relationship into the growing crime sequences would differentiate the angry, violent offender from the sexually aroused, manipulative offender based on the age category of the victim. That is, an adult would more likely be the victim of a violent attack from an angry, potentially stranger attacker who begins with a coercive approach and uses a weapon, thus prompting physical resistance from the victim and resulting in higher likelihoods of both victim injury and rape completion. In comparison, a child victim will more likely suffer a manipulative, less overall violent assault, likely from a known assailant who offends in such a way as to reduce the likelihood of victim resistance. The final outcome would be less likely to include victim injury and rape completion (either separately or combined).

Although also not significant through to the final block of the models, the use of alcohol prior to the crime was found to increase the likelihood of victim injury or both injury and rape completion. Thus, if the offender was under the influence of alcohol during the crime, the danger of penetrative and injurious violence increased. This is not a new finding, as many previous studies have found a positive relationship between offender intoxication

and increased injury to victims due to the disinhibiting effect of alcohol (Brecklin & Ullman, 2010; Busch-Armendariz et al., 2010; Coker et al., 1998; Martin & Bachman, 1998; Testa et al., 2004; Ullman & Brecklin, 2000). However, this finding adds further depth in that it clarifies the relationship to penetration; that is, penetration in combination with victim injury is a likely result of intoxication, whereas rape completion alone is not. This partially supports the work by Testa and colleagues (2004), who demonstrated an effect of alcohol based on dosage levels. That is, higher doses of alcohol are related to decreased rape completion due to an impairment of sexual function, while lower doses are related to a disinhibiting effect that increases the likelihood of penetration. Building upon this notion, the current results suggest that a disinhibiting effect would occur that affects violence and penetration (increasing both), suggesting a lower alcohol dose. However, rape completion alone would be less likely to occur when alcohol is used, potentially suggesting the use of a higher dose.

Adding upon the development of crime sequences, this information further differentiates the violent offense from the sexually-driven, less violent offense. Thus, the violent offense that begins with a coercive approach would be committed against an adult stranger victim by an offender who is not only angry, but also potentially alcohol intoxicated. There would likely be a weapon present, and victim resistance would be physical and followed by a final outcome involving victim injury and, perhaps, rape completion as well. Alternatively, an offense with a sexual focus will begin with a noncoercive approach, but would be more likely perpetrated against a known victim – likely a family member – by a sexually aroused offender, but he would not be under the influence of alcohol. There would be no weapon involved, but only manipulation techniques, and victim resistance is unlikely, especially physical resistance. The outcome of this crime would most often involve rape completion, but not victim injury.

Although a weak relationship that dropped out of both models after the first block, whether an offender was a drug addict was relevant to the offense outcome. A drug addicted offender is more likely to commit an offense with a result involving victim injury or both injury and rape completion compared to one resulting in none of these outcomes. Thus, an offender with a drug addiction is very unlikely to commit an offense that results in the most favourable outcome (“Neither”) or one in which rape completion is the only

outcome. This is hypothesized to be due to the overall offender lifestyle that accompanies a long-term drug addiction.

Walters (1994) identifies four main facets that define a lifestyle of drug abuse: irresponsibility/pseudoresponsibility, which presents as a general inability to meet one's basic needs and obligations or the emotional or psychological needs of loved ones; stress-coping imbalance, which reflects an inability to manage internal or external stressors in a way that does not involve drug use; interpersonal triviality, which refers to drug rituals and superficial or frivolous communication; and social rule breaking/bending, which references either overt or covert violations or circumventions of rules or laws. An offender with this lifestyle would display many problematic behaviours, and may be more likely to find themselves in situations with increased violence or coercion levels, particularly if the offender's addiction requires him to search out drug deals on the street (as opposed to a safe or trusted environment in which to acquire drugs).

Due to the nonsignificant addition of this variable to both models beyond the first block, this will likely only affect the types of situations that the offender either seeks out or ends up in through circumstance. However, these situations are those more likely to lead to various violent outcomes, including facets of injury and rape completion. Thus, based on this information, a drug addicted offender would be more likely to commit the type of offense that begins coercively, is committed against a stranger victim by an angry offender, involves a weapon, and evokes physical resistance by the victim, resulting in injury and possibly rape completion as well.

The final variable that obtained significance within the model was the offender's current employment status, with an employed offender determined to be more likely to complete the rape than to neither rape nor injure his victim. However, this was only a significant finding within the third block of the model that compared outcomes to "Neither", achieving significance neither prior to or after this block. This suggests an interaction effect with a relevant variable added within this block – that is, the victim characteristic variables. While victim gender and age were both added within this block, victim age was not a significant predictor of rape completion compared to neither outcome; however, victim gender was significant within this comparison ($p < .001$ within this block of entrance). Therefore, the most likely interaction effect is between the offender's employment status

and the victim's gender, resulting in a differentiation between an outcome involving rape completion versus one involving neither injury nor completion.

Both an offender being currently employed and the victim gender being female significantly increased the likelihood of a completed rape. Support for the relationship between an offender having an overall more conventional background (including employment) and committing more sexual offenses over time (Lussier et al., 2011) suggests a relationship between the lifestyle of an employed sex offender and the types of crimes he may be committing. These crimes committed by the most "successful" sex offenders in terms of the number of crime events (as opposed to different victims) implies a crime type that allows for repeated exploitation of a small number of victims. Such a crime commission pattern is characteristic of a crime occurring within a family, but can include the continued abuse of children or spousal abuse. While male children could be subjected to this type of abuse, typically, the victims of these types of intrafamilial/domestic crimes are wives or female children. Male children are more often abused either by strangers or within institutional settings, such as schools, athletic organizations, youth organizations (such as the Boy Scouts of America) and religious institutions (Terry, 2013).

Although only fleetingly significant within one model, this relationship could serve as a valid addition to the crime sequence that involves less overt violence. Thus, the offender who begins his crime noncoercively and chooses to assault a known, female victim with his sexual arousal driving his behaviour would be more likely to have a somewhat stable or conventional background, at least in terms of his employment. He would commit his crimes sober and without the use of a weapon so that little to no victim resistance occurs, with a final result of rape completion with little to no extraneous injury to the victim.

5.2.1. Hypothesized Offending Sequences

Based on the overall results within the current study, patterns leading to various offense outcomes can be hypothesized. While not the only way these variables can occur in actual offense scenarios, the sequences presented in Figure 4 demonstrate the most likely combination of variables that relate most strongly to each final outcome. The first set of crime sequences consists of that most likely to result in victim injury either alone or in

tandem with rape completion. These are arguably the most dangerous for the victim, resulting in the worst possible outcomes.

The first of these begins with a drug addicted offender who is in a state of extreme anger, possibly anger directed at his victim, but just as likely angry at some other unrelated person or situation. He consumes alcohol prior to the crime and is under its effects as he begins his crime. The offender chooses a male victim, either an adult man or a young boy, depending on the opportunity and/or his target preference, who also is a stranger. The offender begins the assault with a coercive approach, possibly using a blitz attack to catch the victim off guard. A weapon is used either for intimidation purposes or as a means to actually injure the victim and the crime is of a long duration – that is, at least longer than 15 minutes. Due to the violence of the offender's attack, victim resistance is very likely and is physical in nature. The combination of these factors leads to a very high likelihood of victim injury or death. Rape completion may occur as well, but victim injury alone is the most likely outcome.

The second sequence is very similar to the first except that the offender's anger is not as generalized, but may be vindictive, as described by Knight & Prentky (1990), which implies an anger or hatred specific to women. The offender, then, chooses a female victim, who would also be an adult. While the remainder of the crime is very similar to the previous sequence, the final result is much more likely to involve both victim injury and rape completion – the overall worst possible outcome.

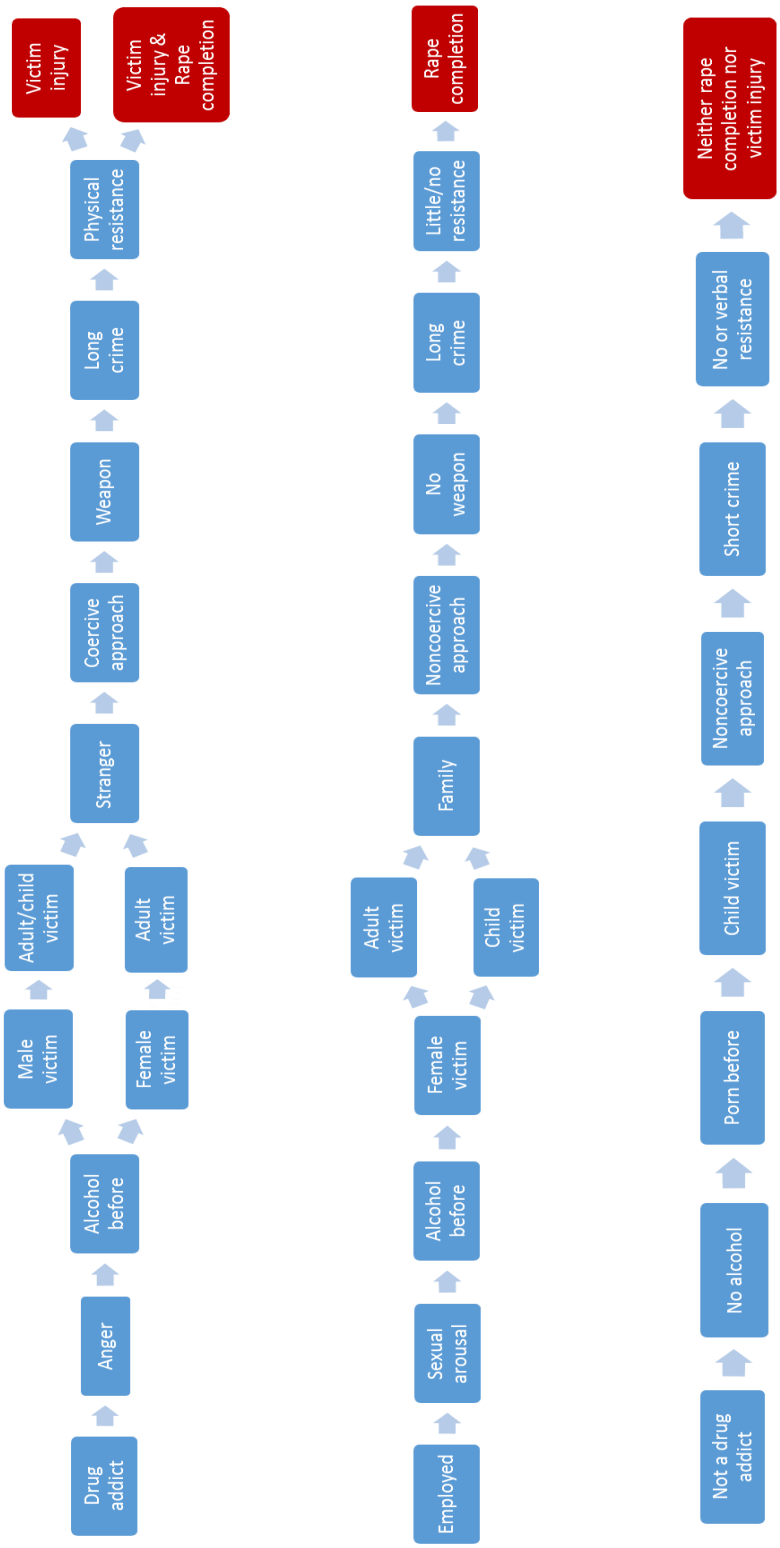

Figure 4 **Crime sequences to specific sexual assault outcomes**

The third and fourth sequences are more sexual in nature as opposed to violent. The first of these patterns begins with an offender who has a somewhat conventional lifestyle, at least in terms of employment, as he holds a job at the time of the offense. The offender is sexually aroused prior to his crime, and that motivates his behaviour during the crime itself. He consumes alcohol and remains under its influence when he begins the sexual assault, this time choosing an adult female victim who is a member of his family, in this case, likely his partner or spouse. The offender begins with a noncoercive approach, instead using manipulative techniques to ensure victim submission. He does not use a weapon, but, like the previous sequences, this crime is also of long duration. There is little to no resistance from the victim, perhaps some passive resistance tactics, but certainly no physical resistance, and likely not even verbal resistance. This combination of victim and offender behaviours results in a final outcome of rape completion. There would be no injury to the victim beyond those due to the actual rape itself, but penetration is the most likely outcome.

The fourth sequence is almost identical to the third, but with the distinct difference of victim choice. Within this sequence, the offender chooses a child victim within his family, who would most often be a daughter or step-daughter, but could include any young related female to which the offender has unlimited or unrestricted access. The combination of variables would, once again, be most likely to result in rape completion without victim injury.

The final sequence represents the combination of factors that result in the highest likelihood of the overall safest, “best” outcome of a sexual assault. While fewer of the variables within the models are included in this particular sequence, those represented are the strongest predictors of an overall safer, preferable final crime outcome. This crime begins with an offender who has no drug addiction as part of his lifestyle. Prior to the commission of his crime, the offender does not use alcohol, but he does use pornography and is under the influence of this pornography consumption when he begins his crime. The offender chooses a child victim and does not use coercion in his original approach, instead using manipulative techniques, such as games or toys, to encourage victim compliance. The crime itself is very short – less than 15 minutes in duration. The victim does not resist physically, but may resist passively or even verbally. The final result of this

crime is the most preferred outcome within a crime of a sexual nature: there is no victim injury and no rape completion.

In general, when these crimes are committed within a real-life scenario, some of these factors may not be present. For example, a crime may have been committed that incorporated all of the stages of the first sequence with the exception that the offender is not a drug addict, but which still resulted in significant victim injury. The proposed sequences do not suggest these combination of factors to be the only possible paths to each final outcome. Rather, the more factors from each event sequence that are present in any given crime, the greater the likelihood of that sequence's final outcome.

5.2.2. Implications

The proposed sequences to various offense outcomes can potentially be used to help reduce some of the worst sexual assault outcomes. While potential victims only have so many options during a sexual assault, the most influential choice a victim has during a crime is the degree to which he or she resists the attack. While it may be difficult for a victim to reduce their level of resistance, the current results suggest that sometimes this may be the best course of action for the victim in order to avoid the most dangerous and injurious outcomes. While more information has been uncovered within the present analyses, more direct tests of this specific relationship should be conducted before victim education programs can truly begin to make blanket statements to victims about when to resist and when to reduce the degree of resistance. The present analyses do support the notion that verbal resistance does not significantly increase a victim's risk of physical retaliation by the offender, suggesting that, while physical resistance can be dangerous, a victim should always be sure to verbally resist and, at the very least, ensure the offender hears a firm, unambiguous "No" from the victim. While this does not appear to increase the level of danger to the victim, it may be enough to stop the assault or make the final outcome less harmful.

The most direct implications that arise from the current results are in relation to offender education, particularly the role of self-management in offender rehabilitation and sex crime prevention. Optimally, if offenders – or those at risk of becoming offenders – were made aware of some of the factors that could lead to the worst crime outcomes, it

may be possible to prevent some of these outcomes. As in the application of offense process and situational models to the development of relapse prevention models for sex offenders (Pithers, 1990; Pithers et al., 1988; Pithers et al., 1983), these crime sequences can be used to increase offender awareness as to the circumstances that may be more likely to lead to outcomes that would be worse for their victims and, thus, for the offender. Many offenders are remorseful after their crimes and do not wish to reoffend.[5] Thus, while some do end up sexually reoffending, if they were made aware of which sequences are likely to lead to the worst outcomes, they may be able to recognize which path they are following so as to stop the crime before the final, injurious or penetrative crime result.

Relatedly, those nonoffenders who may be considered at high risk (based on a nonsexual, particularly violent, criminal history or relevant demographic or family variables) could also be educated as to what the crime progression of the crimes with the worst outcomes most often look like. If presented collectively with information about the different sentences that accompany various levels of severity in sexual crimes, and the immediate and lasting effects on the victims, this could help to prevent these potential offenders from committing sexual assaults with the worst outcomes. As with the previous sex offenders, learning how to self-recognize and self-manage such behaviour could aid in the reduction of some of the worst sexual assaults.

5.3. Conclusion

While a great deal of current and previous research focuses on the overall prevention of sex crimes, both from a general standpoint (primary prevention) as well as preventing sex offender recidivism (tertiary prevention) (Brantingham & Faust, 1976), the prevention of specific outcomes once a crime has begun cannot be forgotten. The present analyses have concentrated on this aspect of secondary crime prevention by focusing on the factors that lead to some of the worst outcomes compared to those that lead to less serious outcomes in terms of victim injury and rape completion. Thus, although a crime

5 This statement is based on the author's personal experience volunteering with released sex offenders in British Columbia, Canada.

has still occurred, the short and long term damage to the victim is measurably less than what it could have been.

In general, some of the most important determinants of final outcome appear to be the offender's level of coercion in his approach, the length of the crime, specific victim characteristics, such as gender, age, and relationship to the offender, whether a weapon was utilized, the offender's predominant affect prior to the assault, the use of pornography before the crime, and the degree of victim resistance. The sequences presented in Figure 4 represent the combination of factors most likely to lead to each outcome, although, in reality, crimes could incorporate only some of these and still lead to the predicted outcome. The purpose is to provide the most complete representation of the factors that have demonstrated a relationship to offense outcome.

In many ways, it appears to be the case that crimes that lead to victim injury (or injury in conjunction with rape completion) are almost opposite in nature to crimes that lead to rape completion alone. Comparing the sequences presented in Figure 4, many of the most influential variables present opposing effects on these crime outcomes. This is a very significant finding, as it taps into the fact that the very nature of these assaults are different and, based on the overall results, these differences are often apparent very early in the crime commission process. The behaviours and decision-making processes of offenders committing these differing crimes are inherently dissimilar from the outset through to the final stages of the crime. This difference is very likely tied to an overarching theme found throughout the results of all three studies: the effect of offender motivation and mindset. This plays out as an extremely important factor within the results, and appears to be tied to each of the final sequences presented. Therefore, the offender's mindset may be more important than any other factor during a sex crime; however, offender mindset is inextricably linked to the surrounding situation, crime precursors, victim choice, the degree and type of planning, as well as how he reacts to victim behaviour. Thus, motivation or mindset appears to be the underlying causal mechanism that ties each of the relevant relationships together and leads to various differing crime outcomes.

Despite this important finding, relatedly, the opposing effects on outcome sequences generally differentiate more between crimes with different types of undesirable

outcomes (injury or penetration) rather than between crimes with the “best” or “worst” outcomes (neither versus both outcomes). Thus, while these analyses provide a great deal of new information with regard to patterns that lead to various sexual assault outcomes – and that these patterns appear to relate to the offender’s underlying motivation and mindset – there is not as much evidence differentiating the best from the worst possibilities, which was the original goal. Key findings did, however, shed light on some of the most pertinent factors related to the optimal outcome of a sexual assault (neither injury nor penetration). Future research in this area would be best served by further elucidation of this crucial sequence, perhaps through investigation into a greater number of sexual assault cases that resulted in less serious outcomes and, relatedly, less severe sanctions.

While sexual assaults may never be completely eradicated from society, the current study has provided information on how to better understand the factors that lead to the least desired outcomes. With this information, some of the most injurious and sexually intrusive sex crime outcomes may be able to be prevented. If research continues to be conducted on all aspects of sexual assault prevention – primary, secondary, and tertiary – society and the Criminal Justice System will have the best chances of reducing the worst, most serious crimes.

Chapter 6. Final Conclusion

The present research has explored an array of situational factors relevant to the crime of sexual assault. Specifically, victim and offender characteristics, disinhibitors and impediments, and *modus operandi* traits have been examined in terms of their influence on final crime outcomes. These outcomes include multiple indicators of violence and sexual intrusiveness as well as a distinct combination of the worst, most tangible outcomes for the victim (rape completion and victim injury). In addition, the relevance of victim resistance in particular has been investigated both as an independent and dependent variable to garner its importance as a predictor of crime outcome as well as to determine what other factors are likely to increase or decrease victim resistance.

Overall, the results suggest very different crime factors that lead to either more violent or more sexually intrusive outcomes. This was true whether examining specific outcomes individually, as in Study 2, or the combined variable that was the focus of Study 3. One of the most important factors that consistently distinguished these major outcome types was the offender's affect, which suggested that anger leads to increased violence and injury while sexual arousal more often leads to sexually intrusive offenses, particularly resulting in rape completion. Other consistently relevant factors were the victim's age and relationship to the offender. The results continually demonstrated that an adult victim, particularly a stranger, was more likely to encounter excessive violence during the assault compared to child and related victims. Furthermore, related victims more often suffered sexually intrusive offenses, although it appears to be the case that in these circumstances, children will more often be forced to participate while adults will be raped. As well, the type of approach that the offender used to begin his crime had a significant impact on the final outcome, with more coercive approaches more often leading to violent and injurious outcomes while noncoercive approaches were associated with increased rape completion or other intrusive assault outcomes. However, this latter approach was also shown to lead to the "safest" outcome for the victim within Study 3 – that is, a lack of injury or penetration during the assault.

Relatedly, there were also factors that more specifically differentiated either violent or intrusive outcomes from a lack of such negative outcomes. One of the most relevant

crime factors was the length of the crime. Longer crimes were consistently associated with more violent, injurious, and sexually invasive outcomes, while shorter crimes often resulted in nonviolent, nonintrusive crime outcomes. Additionally, when alcohol was not used prior to the crime and, thus, the offender was not under its influence when he began the assault, a less violent and intrusive outcome resulted. Furthermore, pornography exposure prior to the crime had a moderating effect, reducing the likelihood of violence and injury as well as the likelihood of a completed assault.

In terms of victim resistance, many of the factors that affected final violence and intrusiveness levels also affected the likelihood of physical resistance from the victim. That is, if factors were present that led to a more violent or invasive final outcome, these also likely elicited physical resistance from the victim. Specifically, pre-crime pornography exposure by the offender decreased the chances that a victim would resist, as did a dominant offender affect of sexual arousal. Child victims, particularly when the crime occurred during the day, were also far less likely to resist.

Victim resistance also had an extreme influence on crime outcomes as a predictor variable in that physical resistance more often led to violent outcomes with substantial victim injury. When there was little resistance from the victim, the outcome was often a relatively safe one (with little violence or sexual intrusion), but many cases in which there was a lack of resistance resulted in a sexually intrusive offense. Thus, while there appears to be a clear relationship between physical resistance and an overall violent offense, the circumstances that lead to and result from less resistant victim responses are not as clear. While these latter crimes are less violent, a sexually invasive outcome may result, although this does appear to be affected by other crime and situational aspects as well.

This information can have multiple potential implications for policy and research. The results discussed herein have been used to describe some of the most relevant situational factors that surround the criminal event of sexual assault and that affect its progression to various outcomes. This development in terms of describing the event of sexual assault is useful to present and future researchers attempting to understand this complicated offending behaviour. Both theory and research could benefit from the knowledge produced in the preceding studies, particularly those with a focus on the development of offending trajectories or typologies. While research in this area has been

increasingly expanding (see Proulx et al., 2014 for a contemporary review, including some of the most recent advancements in this area), the predictive ability of such models can always be improved upon and the current collection of results could aid in this endeavour.

Specific theoretical applications have focused on the importance of an offender's negative emotional state and how this relates to the propensity to commit a crime as well as the type of crime that is committed (including the type of victim selected). Some argue that offending is a process to cope with emotions that arise based on the shift from long-term goals of abstinence to short-term goals of sexual gratification and attempts to reduce the negative emotions (Serran & Marshall, 2006). Others contend that sexual aggression is the direct expression of negative emotions (Groth & Birnbaum, 1979) and that the offender MO is directly related to this pre-crime emotional state (Proulx, Beauregard, Cusson, & Nicole, 2007). It is generally proposed that using sexual offending to cope with negative emotions is likely either a result of coping skill deficits or a lack of will that manifests in the choice to use the more straightforward, entrenched sexual strategies to alleviate negative emotions (Proulx et al., 2014).

The major difference between such theorizing of previous studies of affect and the current analyses is that the present studies examine the importance of offender affect *during* the crime (which is distinct from affect *prior* to the crime). Thus, while various negative emotions, such as loneliness, anxiety, depression, rejection, or humiliation, may be demonstrated to be relevant within many previous studies as part of the rationale for committing a sex crime (or for committing a certain type of sex crime) (Proulx et al., 2014), the two most prevalent and influential types of affect once the crime has begun appear to be sexual arousal and anger. Thus, the dominant offender affect appears to change between the pre-crime stages and the actual commission of the crime. Understanding what leads to various crimes is an important component of sex offending research; however, the focus within the current study on the emotional states *within* the crime that affect the progression and outcome of the crime are equally important for inclusion within models of sexually aggressive behaviour. Particularly given the substantial impact that this variable had on literally all outcome elements within the criminal event investigated in all three studies, this aspect of the crime cannot be forgotten or assumed to be incorporated within the inclusion of the dominant affect prior to the commission of the crime.

Related to this notion, most studies delineating the relevant stages in the pathway to offending focus on what leads the offender to commit his crime. This is often a function of negative emotions (as discussed above), combined with lifestyle or predisposing factors and situational elements, such as high risk situations (Pithers, 1990; Pithers et al., 1988; Pithers et al., 1983; Proulx et al., 2014; Polaschek et al., 2001; Ward et al., 1995). While certainly an important requirement to fully comprehend the event of sexual assault, these models too often do not incorporate the relevant stages within the crime in their discussion of various crime pathways or trajectories. Perhaps this focus is related to the overall goal for research to aid in the complete prevention of these crimes, as opposed to harm reduction strategies. Thus, while offenders can reach the final stage in the crime commission process (actually committing the crime) through various, distinct pathways, which will affect their choice of victim, the type of crime, and perhaps the role in which they see themselves and their victim, what occurs during the crime itself is secondary. The primary focus should be on recognizing and halting this behaviour before it reaches the offending stage. While it is difficult to argue with this logic, the question then becomes: What happens if an offender does find himself in that offending stage?

The current studies have focused on this particular question as a way to advance current literature on the topic, following the lead of Proulx and colleagues (2014). The present results as well as those within Proulx et al. (2014) denote the necessity to incorporate within-crime stages and points at which offender decision-making can change the outcome of a sexual assault already in progress. However, unlike Proulx et al. (2014), the current results were designed to focus primarily on the offending stage, with the inclusion of pre-crime factors only as a means to assess their direct impact on crime progression and outcome. Furthermore, all types of sexual crimes were incorporated into the delineation of each model so that the effect of victim choice was only one factor of many that affect final crime outcomes. The models and sequences that resulted from this focus are strengthened by this design in terms of the balance of both specificity and parsimony. This organization allows for the later compilation of complementary models for a complete explanation of the offending process, but with the option of focusing with more specificity on what is arguably the most important stage – the offending stage.

The overall results are also a beneficial addition to theoretical literature regarding the criminal event and, specifically, the Criminal Event Perspective (CEP). As discussed within the theoretical framework of the current collection of studies, the CEP focuses a great deal on the interactions that take place between actors within a criminal exchange. That is, the offender's decisions greatly affect the progression and outcome of the crime, but so too do the decisions and subsequent behaviours of the victim. The overarching importance of the victim resistance variable to all of the crime outcomes under study demonstrate the irrefutable fact that a sex offender does not act alone nor does his behaviour occur within a vacuum once an assault has begun. Sexual crimes are not only about the offenders committing them.

While the decision to commit the crime and his choices as to victim choice and MO belong to the offender himself, once the crime has begun, the offender must always adapt his behaviours to account for the actions (or inactions) of the victim. Even if the victim capitulates fully – and the offender was counting on this, as often occurs in abuse cycles within the family – this inaction on the part of the victim still affects how the offender commits his crime and the final outcome. Even more so, if the victim behaves in an unexpected manner, the offender must adapt and alter his offending process to account for this unanticipated victim response. And, as can be seen in the final models and crime sequences, different types of victim resistance result in different reactions from the offender and influence the final outcome of the crime. These victim-offender dynamics are important to include within any discussion of offending process models or crime scripts and support the use of the CEP to organize and design research in this area. To ignore this dynamic is to ignore the context of an offender's actions and the important effect of victim behaviour on crime progression and outcome.

More direct, policy-oriented implications of these findings are, as discussed in varying detail previously, related to sex crime prevention. There are some implications with regard to primary and tertiary prevention, specifically targeting potential victims or offenders for educational programming or previously convicted sexual offenders in targeted correctional treatment or relapse prevention measures. For example, anger management treatment would be a valuable use of correctional resources for offenders either at risk of committing violent sexual offenses or with previous convictions of such

offenses due to the importance of offender affect to the commission of some of the worst sexual offenses.

Despite the potential usefulness of the current results for primary and tertiary prevention measures, the most direct application of these results are in regard to secondary sex crime prevention. Also known as harm reduction, this component of crime prevention is best served by this information due to its direct focus on crime outcomes, rather than simple commission of a crime. That is, while outright prevention of sexual offending is the goal of much research in this area – and with good reason – the results of the current analyses are more directly related to preventing crimes that do occur from progressing to the worst outcomes, such as injury to the victim or completion of the sexual components of the assault.

This could be implemented through programming most similar to current relapse prevention programs (Marlatt & Gordon, 1980; Pithers, 1990; Pithers et al., 1988; Pithers et al., 1983), which specifically target convicted offenders, but also through targeted intervention with at-risk potential victims and offenders. If victims and, more importantly, offenders can be educated about some of the most pertinent factors that affect final crime outcome and, particularly, how these factors interact to create the most likely crime sequences to specific outcomes, perhaps some of the worst outcomes can be avoided. If victims learn to recognize the path down which a crime perpetrated against them is headed, they can better deduce which resistance methods to employ to increase their chances for survival and escape. Similarly, if offenders learn these crime elements and sequences, they may be better able to perceive the combination of factors that most closely resemble their own offending trajectories so these may be altered or prevented. For example, if an offender has begun to commit a violent offense, but is able to recognize that his angry affect combined with his coercive approach and possession of a weapon is likely leading him towards an unintended, injurious crime outcome, when the victim begins to physically resist his assault (the likely response to such violence), he may use that opportunity to flee rather than react violently to this resistance. While such a prevention initiative necessitates an offender (or potential offender) with a goal to remain out of prison and/or not be responsible for the injury or death of another individual, it could be

particularly helpful for those with a high risk to offend or reoffend so that they have the tools available to aid them *even after* a crime has begun.

While some limitations have been addressed within the specific studies, there are general limitations that apply to the collection of analyses and interpretations as a whole. The most pertinent is the fact that, while the consecutive studies build on one another, all three utilize the same secondary dataset, which may impede their ability to demonstrate consistency or replicative support for one another. That is, while consistency within the results supports the importance of the relevant variables, if there was a measurement issue or even slight misinterpretation within the gathering or coding of the original data, this error would be represented within all three studies (i.e., reliability supports, but does not necessarily imply, validity). To address this limitation, future research should aim to replicate the current relationships and crime patterns with a different sample.

Additionally, although the emphasis of the studies was intentionally on event characteristics, with some focus on offender lifestyle and victim characteristics, some historical or psychiatric offender characteristics that were not included may be particularly relevant to an examination of offense outcomes. Thus, factors such as offending history, psychiatric diagnoses, or deviant arousal patterns may be important indicators of the types of crimes that such offenders would commit. For instance, it can be hypothesized that previous violence and offense history are likely to affect the level of violence in subsequent offenses, as a result of the development of a script (Beauregard, Proulx, Rossmo, Leclerc, & Allaire, 2007). Future studies should attempt to integrate event and offender historical or psychiatric characteristics in the prediction of coercion or invasiveness levels within sexual assaults.

A similar limitation involves the few victim characteristics that were examined in the present analyses. Victim characteristics were limited to age, gender, and criminogenic background. Although these are important in examining patterns within sexual assaults, more victim variables could have been incorporated for a more complete picture. In keeping with the focus on event or situational variables, it would be interesting for future research to examine the effect of situational victim characteristics. This could include the effects of victim clothing at the time of the offense, activities that the victim was engaged in before the assault, and whether the victim was kidnapped or lured from a large crowd

or assaulted while in a private setting (the latter of which was addressed to some degree, along with other spatio-temporal crime aspects, by Balemba and Beauregard (2013), although not as these factors relate to final crime outcome).

Relatedly, only a few choice offender lifestyle variables were included as well. The offender's marital and employment status and addiction to drugs or alcohol were the only factors included in this variable set. While these are valid indicators of lifestyle, more such factors could have been included to get a stronger, deeper understanding of this facet of the pre-crime stage. Specifically, Pithers and colleagues (1988) found it necessary to amend the relapse prevention model to include early lifestyle antecedent factors that may affect the predisposition to offend. This included the offender's level of empathy and need for power as well as his social and sexual skills, long-term hostility towards women, and deviant sexual preferences. Later, Pithers (1990) further discussed the importance of the stress from overworking, as well as the effects of idleness and dependence on another person and how this could affect sexual recidivism. Such factors present a deeper understanding of the offender's lifestyle and may serve as a beneficial addition to future sexual offending process models.

Methodologically, a possible limitation within the logistic regression analyses may have arisen in terms of the somewhat "sample specific" and "variable specific" nature of this statistical technique. In some instances, few cases with different characteristics on key variables can dramatically affect the model that emerges from each analysis. Relatedly, the inclusion or exclusion of potentially key variables can also significantly affect the model and the final variables that are included therein. If a particularly influential variable was overlooked within the original design of these analyses, the subsequent inclusion of this variable may result in a substantially different final model.

Relatedly, although tests of multicollinearity were passed in each of these models, the high bivariate correlations between some of the key variables (such as offender approach and strategies to commit the crime) may have adversely affected the final model. Although not enough to call any of the models into question, these correlational relationships may have inflated or reduced the likelihood of statistical significance of some

of the relationships to the dependent variable due to the effects on standard errors.[6] None of the standard errors were large enough to cast doubt on the performance of any of the models; however, these sizeable bivariate relationships should be kept in mind when interpreting the specific strength of variables in potentially affected blocks. In reference to both possible methodological limitations, replication is necessary to strengthen the applicability of the current findings.

The current collection of studies represent a significant step forward in the process of understanding sexual assault as a criminal event. Interrelationships between relevant pre-crime, crime, victim, and offender factors were observed as they relate to final crime outcome, with a special focus on victim resistance. It is true that the area remains in need of further, replicative research to increase the confidence in the direct policy and educational implications of the present analyses. However, the models and main findings should begin to enter the political and public domains to increase awareness about the effects of various offender and victim behaviours on sexual assault outcomes. With any luck, this information could be used to effectively reduce the future incidence of those sex crimes with the worst final outcomes.

[6] The likelihood of variable significance would be decreased in the variables directly affected by any multicollinearity through an increase in that variable's standard error. Therefore, then, the likelihood of significance of other variables in the model may be inflated because the variables with otherwise strong explanatory power are not exerting as much influence on the model as they should be.

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