

**REACTIONS TO RESISTANCE: THE ROLE OF
CONTEXTUAL FACTORS IN SEX OFFENDING**

by

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ABSTRACT

Circumstances under which a sexual assault takes place and how these circumstances affect offenders' reactions to victim resistance are not well understood. Previous studies have not thoroughly examined the interactions that take place between situational factors and resistance. Thus, through two studies, victim, situational, and crime characteristics of 426 sexual assaults were examined to determine their effects on offenders' reactions to victim resistance, with the second study specifically examining the differences in cases with child victims compared to cases with adult victims. Findings suggest that violence is affected by both the attack strategy employed by the offender and the type of resistance by the victim, along with several other qualifying factors, and that differences do exist in how offenders react depending upon the victim's age. The overall findings of both studies lend support to the social interactionist perspective and the importance of victim-offender dynamics.

Keywords: Criminal event; offending process; victim resistance; CHAID; sexual coercion

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CHAPTER 1: INTRODUCTION

Despite the public tendency to view sex offenders as a homogeneous group, research supports the alternative hypothesis that sex offenders are diverse (Knight & Prentky, 1990; Rosenberg & Knight, 1988). Clinicians who evaluate and treat sexual aggressors traditionally group offenders into behavioural types (see, for example, Groth & Birnbaum, 1978; Groth, Burgess, & Holmstrom, 1977; Knight & Prentky, 1990; Rosenberg & Knight, 1988) or offenses into event types (see, for example, Beauregard & Leclerc, 2007; Polaschek, Hudson, Ward, & Siegert, 2001; Proulx & Beauregard, 2009; Ward, Loudon, Hudson, & Marshall, 1995).

From an offender-specific focus arises the development of typologies, which are meant to group offender types based on patterns of behaviour. Although beneficial for research and treatment purposes, typologies have certain weaknesses. Typologies often focus solely on the aggressor, a different level of analysis than the examination of the criminal event as a whole (Meier, Kennedy, & Sacco, 2001). Typologies also presuppose that the offending process does not fluctuate, assuming offenders always act the same way. This “offender-centric” thinking has largely ignored *situational* factors. It seems almost intuitive that situation often dictates behaviour; even a highly motivated sex offender with no internal restrictions against reoffending must wait for an acceptable victim and opportunity to present themselves before that behaviour may take place.

Typologies developed to date focus mainly on offender characteristics, such as personality, motivation, and sexual preferences (Knight & Prentky, 1990; Rosenberg & Knight, 1988). However, situational factors (e.g., alcohol/drug use, pornography use, etc.) and, most importantly for our purposes, resistance by the victim, have a critical impact on the offense process (see for example, Beauregard & Leclerc, 2007; Beauregard, Proulx, Rossmo, Leclerc, & Allaire, 2007; Kaufman, Mosher, Carter, & Estes, 2006; Leclerc, Carpentier, & Proulx, 2006; Wortley & Smallbone, 2006).

The organization of offense types based on situational factors leads to the development of offense process models. This notion derives from relapse prevention models (Marlatt & Gordon, 1980; Pithers, 1990; Pithers, Marques, Gibat, & Marlatt, 1983), which were originally designed to prevent post-treatment relapse by persons with addiction (Marlatt & Gordon, 1980), but have since been applied to sex offending (Pithers, 1990; 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 as well as cognitive evaluations and decision-making. Factors such as high-risk situations, apparently irrelevant decisions, abstinence violation effects, and the problem of immediate gratification all contribute to the offender's or addict's lapse and subsequent eventual relapse. Although Pithers' model as an application specific to sex offenders has received criticism (see, for example, Ward, 2000; Ward & Hudson, 1996), the inherent notions – 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 models, also referred to as offense chain models, provide event descriptions of an offense, including elements of cognitive, behavioural, motivational, and contextual factors important in the decision-making of the offender (Polaschek et al., 2001; Ward et al., 1995). Similar to relapse prevention models (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).

Although an individual offender may often follow similar offense processes over the course of various separate offenses, offense process models possess the potential to allow “crime-switching” to occur. This implies 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. Crime-switching, though not explicitly discussed by those who have developed offense process models (Polaschek et al., 2001; Ward et al., 1995), is a possible application of their inherent ideas. Past research has shown that offenders can exhibit indicators from multiple pathways during a single offense (effectively switching back and forth between pathways) (Ward et al., 1995) as well as change their offending goals and offense patterns during an offense (Polaschek et al., 2001). Thus, it becomes little more than extrapolation of these findings to assume that offenders may take different pathways to offending from one offense to another. This flexibility in offender patterns

indicates the importance of circumstantial factors that may have an important impact on the progression of the offense.

In addition to crime-switching, one of the most notable elements of an offense process model is its flexibility in accommodating shifting offender goals. Unlike the relapse prevention model, an offense chain does not assume that an offender's goal is to commit an offense from the outset (Polaschek et al., 2001). Rather, the inherent instability in the mind of an offender during a criminal event is reflected in the offense chain's dynamic nature, thus supporting the importance of contextual and situational factors. A model developed by Polaschek and colleagues (2001) to explain the offense process of rapists emphasizes the importance not only of situational factors in general, but also the specific impact that victim-offender interactions have on the progression of a sexual attack. Of particular importance to the current discussion is the portion of the offense process that focuses on the actual offense phase, which occurs after the approach and preparatory phases. The most notable factors relevant to the progression of the sexual assault at this phase were the victim's response during the assault and the offender's evaluation of that response and of the assault as a whole (Polaschek et al., 2001). The model determined that some offenders were more attentive and responsive to the victim's compliance or resistance than others, and this often depended upon their behaviours and intentions. Furthermore, such an offender's evaluation of the event was heavily determined by the victim's actions. Although offender evaluation often depended on their own personal level of satisfaction, when victim resistance was sufficient to interfere

with offender goals, this resulted in a negative evaluation of the event, which affected postoffense behaviour and cognitions. This “social interaction” (p. 538) that occurs between victim and offender affects offender behaviour (Polaschek et al., 2001). Additionally, the authors note the particular importance of measuring these relevant factors from the offender point of view within an offense chain model, as decisions are often made based on the offender’s perception of the victim, regardless of the true intent of victim behaviour.

A similar type of offense chain model was developed by Ward and his colleagues (1995), but with a focus on sexual assaults involving child victims. Comparable to the previous model, this nine-stage offense chain model evaluated the cognitive, affective, and behavioural sequence of events leading up to and succeeding the commission of a sexual assault against a child. As with the rapist model, a specific focus was placed on the situational components immediately preceding the offense, although there was no direct discussion of the offense itself. This “proximal planning” (p. 463) stage dealt with the cognitive focus of the offender directly before the commission of the offense (Ward et al., 1995). The level of offense aggressiveness or intrusiveness, the duration of the attack, and the level of sexual arousal during the offense were each important elements of the crime that could be attributed to whether the offender maintained a self, victim, or mutual focus directly before the commencement of the sexual assault. Although not directly discussed, this implies the importance of how the victim behaves and interacts with the offender (and, naturally, the offender’s previous and subsequent behaviours as well) in determining the type and

progression of the child sexual assault. Furthermore, similar to Polaschek and colleagues' (2001) model, the stage immediately following the offense consisted of a cognitive evaluation, which is influenced by the transpiring behaviours during the assault and often by cognitive distortions about the victim. Both Ward's model and Polaschek's model express the intrinsic importance of the inclusion of victim behaviours and victim-offender interactions within any model of a sexual offense. Whether examining a crime against an adult or a child, victim-offender dynamics have been shown to significantly alter the progression of the offense as well as the offender's level of physical violence.

The development of an offense process model is the ultimate goal of most situational research; however, researchers should not be too hasty in such developments. Before arriving at a comprehensive, macro-level offense model, each individual component significant in its progression must first be identified and explored. Human beings as a group are complex in nature, and social science research must reflect that. There are such a vast array of possible cognitive, behavioural, motivational, and situational factors that may exert an influence on a criminal event that the most effective research must be conducted with a very micro-level focus. When research attempts to explain too much at one time, there are inherent validity and reliability issues and certainly a lack of generalizability to "the real world", and often very little can be salvaged. To understand the criminal event as a whole requires an in-depth comprehension of the sum of its parts. Thus, research must be strategically designed to evaluate fully each aspect of the criminal event on its own, while being always

conscientious of the eventual amalgamation into a complete model. The first step in such a direction is the orientation of research towards one specific element of the offense process. Only after each phase in the crime is better understood may we then venture to hazard a more realistic analysis of the event in its entirety.

To that end, borrowing from the perspective of Polaschek and colleagues (2001) and Ward and colleagues (1995), with a specific focus on offenders' interpretations and the effects on subsequent event behaviour, the current study examines one of the most pertinent aspects of an offense process: an offender's reaction to victim resistance. Although only one phase within an offense chain, it requires a specific focus in current research due to the massive impact that victim resistance – and victim-offender dynamics in general – can have on a sexual offense.

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).

Although Ullman's research has been influential in the determination of resistance effectiveness with various outcome foci, there are multiple inherent problems with the victim resistance research that has been conducted to date. One chief concern lies in the essentially atheoretical development of these studies. Until now, there has been no truly appropriate theory that can explain the effects that victim resistance may or may not have on offender violence, nor has one been offered with any true vigour by researchers in the area. How can a single theory explain the connection between victim resistance and offender intent, overall violence, rape completion, and victim injury? There are too many concepts attempting to be linked in previous research that cannot be supported by any substantive theory. Rather than attempt to theorize a connection between a multitude of temporally and logically diverse aspects of the criminal event, theoretical application must be directed at the components of the crime that can actually be intrinsically linked. Only upon divulgence of theoretical support for each aspect of a sexual crime can a more encompassing, parsimonious theory be applied and supported. Thus, the more direct focus of the current research on the offender's immediate reaction to the victim's resistance corrects for this

oversight of previous literature, thus allowing the utilization of sound criminological theory.

This leads into the second major problem with research conducted within the field of victim resistance – that of proximity of resistance to the outcome of the assault. Ullman and others have examined the impact that victim resistance has on rape completion and victim injury. These outcome variables are far too distant and disjointed – again, both temporally and logically – to be expected to directly affect one another. It is far more reasonable, and almost commonsensical, to assume that some interacting or mediating variables must be present; whether it is these variables that make the relationship between resistance and offense outcome significantly weaker is the real question that must be answered in order to determine if there is a true overarching relationship. It is certainly possible that the real effect of victim resistance lies not in the overall violence level and sexual intent of the offender but, rather, in his immediate reaction to that resistance and how the victim's resistance affects his cognitive evaluations and emotional stability within the context of the assault.

Congruent with previous research findings, training potential rape victims in situational prevention methods is beginning to be promoted in the literature (Gidycz, McNamara, & Edwards, 2006; Rozee & Koss, 2001; Ullman, 2007b). Many prevention programs currently in effect focus on the reshaping of attitudes supportive of rape or the increase of women's belief in their ability to successfully resist an attacker (Ullman, 2007b); although important factors, these alone are insufficient. Rozee and Koss (2001) promote the overcoming of psychological

barriers to victim resistance, strongly encouraging victims to resist so as to increase rape avoidance, harm reduction, and psychological well-being. Gidycz and colleagues (2006) identify the unrealistic “optimistic bias” (p. 452) that women possess, in that they believe their risk to be lower than others’ risk and their ability to handle the situation to be much better than that of other victims. These authors suggest that programs for women must address this bias in addition to helping women identify and respond to assailant threats and providing the essential skills to react assertively. Ullman (2007b) believes that current rape prevention programs restrict women’s freedoms by advising women to avoid “risky situations” (p. 425) whereas programming should actually be focused on enhancing freedoms. This can be done by informing potential victims about risky situations, but also by providing education in effective resistance strategies and methods in self-defence.

The question that follows the compilation of antecedent findings relates to the effect of victim resistance on offender violence and what factors increase the offender’s propensity for violence in the face of victim resistance. The current study will concentrate on this portion of the criminal event within the context of sexual assaults against adults and against children using sequential logistic regression analysis and several CHAID (*Chi*-squared Automatic Interaction Detection) analyses to devise predictive models with a focus on interaction effects. This will be accomplished through the compilation of two independent, but related, studies. Models will be developed for the entire sex offender sample

as a whole, followed up with a model that specifically examines offenses against adults and another with a specific focus on offenses against children.

The goal of this research is to determine which situations lead to increased offender violence so that we may better inform victims how best to react. Some situations may call for the maximum level of victim resistance, while others, with a specific focus on harm reduction, may lead to a less violent offender reaction when victim resistance is somewhat diminished. Thus, the victim can potentially be better informed as to the best way to avoid triggering further violence and escalation from the offender. However, the burden of harm reduction should not lie solely within the actions of the victim; the information gathered herein may also be used to inform the offender in harm reduction strategies through training similar in nature to relapse prevention models. Essentially, once an offense has begun, if an offender has been educated in harm reduction strategies, he may be able to recognize triggers during the offense that inform him that violence is likely to ensue. If treatment has instilled within the offender the idea that all is not lost once an offense has begun, he may be able to recognize when a situation is becoming more dangerous and violent than was originally intended and break that cycle before the escalation occurs. Thus, although an offense has still taken place, it may turn out to be not as violent and physically injurious to the victim as it could have been, had it not been for the proposed harm reduction relapse prevention training. Therefore, to begin this arduous task, we must first answer the question: upon encountering victim resistance during the commission of a sexual crime, what event variables can

predict whether or not a sex offender will become violent and how do these variables interact?

1.1 The Criminal Event Perspective

Criminal behaviour as a whole has been the subject of much theoretical debate. Although individual factors are undoubtedly important in explanations of criminal behaviour, the dynamic nature of interpersonal interactions between offender and victim are often minimized or ignored in explanatory models (Kennedy & Forde, 1999).

It has been argued that no previously established theories adequately examine criminal acts directly insofar as linking preconditions to situational outcomes (Meier et al., 2001). Most current “mainstream” theories either focus on offender motivation, victimology, or social context, rather than integrating all three together (Pino, 2005). A comprehensive model of criminal activity needs to account simultaneously and dynamically for offenders and victims as well as for the physical and psychological contexts within which they interact. However, most criminological theory has been unable to conceptualize these elements in ways that emphasize their interrelatedness (Meier et al., 2001).

This failure led to the emergence of the criminal event perspective (CEP; Miethe & Meier, 1994; Sacco & Kennedy, 1994, 1998, 2002). 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 and that, ultimately, could lead to inductive theory building.

Criminal events are different from criminal acts (Sacco & Kennedy, 1994, 1998, 2002). Acts are instances of behaviour, while events involve 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 and an end and occur over time in a sequential fashion (Sacco & Kennedy, 2002). Rather than simply reacting to the 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 et al., 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).

Although this perspective provides an appealing framework to study the criminal event, it is, in and of itself, somewhat insufficient to explain victim-offender dynamics. The vast importance of interactions that take place between victim and offender is more comprehensively examined within theories directly targeting social interaction and behaviour motivated by interpersonal exchanges.

1.2 The Social Interactionist Perspective

Sexual coercion involves the use of threats, force, or some other oppressive strategy to compel participation or subjugation to a sexual act. This can be viewed as similar to other types of coercion in that it is used to obtain specific outcomes from unwilling participants (Tedeschi & Felson, 1994). Regardless of what the offender's objectives may be at the outset of the criminal act – sexual gratification, punishment of the victim, or protection of self-image in the face of defiance – the actual result ultimately depends upon what occurs during the criminal event itself. According to the *social interactionist perspective*, in the course of any personal crime, the behaviour of one actor is shaped by the behaviour of the other (Block, 1981; Goffman, 1967; Luckenbill, 1977; Tedeschi & Felson, 1994). Within the context of a sexual crime, this could mean that the victim's behaviour depends – in whole or in part – on the offender's level of violence and coercion. Similarly, the offender may change his behaviour depending upon the victim's perceived willingness or resistance (Tedeschi & Felson, 1994).

Early on, Goffman (1967) stated that face-to-face interaction is an important facet of everyday behaviour and affects the progression of events and

social encounters. Decision-making is affected by “interpersonal action” generated when persons in an interaction provide a field of action for one another. As such, the way a situation progresses will depend upon the actions and reactions of each participant, thus emphasizing the importance of the behaviour of each person within the interaction (Goffman, 1967). Similarly, Block (1981) states the importance of the victim’s role and actions on those of the offender. What takes place within the confines of the microenvironment surrounding the crime is most often a result of the actions of the victim and how those actions intersect with the strategies and behaviour of the offender.

Tedeschi and Felson (1994) further developed the calculative aspect of personal crime through their decision-making theory of coercive action, wherein harming is goal-oriented behaviour arising from social interactionist processes. The essence of goal-oriented behaviour assumes a certain level of rationality within the decisions made during the course of a coercive encounter. Borrowing from the rational choice perspective (Cornish & Clarke, 1986), choices regarding one’s actions are made based on the perceived value of rewards (positive outcomes), the perceived value of costs (negative outcomes), and the estimated probabilities or likelihoods of the positive and negative outcomes achieving fruition. Self-preservation is intrinsic to human nature and, thus, all behavioural choices are made based on what is perceived as the best possible option in a particular scenario that is most likely to yield valued rewards.

Luckenbill (1977) discusses violence in terms of a “working agreement” between offender and victim. Essentially, he suggests that each participant

develops a role within the criminal interchange; each role is shaped by the other player and ultimately contributes to the resulting violent outcome. In this way, victims are purported to either directly or unwittingly facilitate their own demise. Since the victim's actions antagonize the offender in some way – even if this is completely unintentional, as in the case of a child victim who refuses to stop crying – this is perceived by the offender as entering into an agreement where violence and force are acceptable tools that may be utilized to settle the dispute (Luckenbill, 1977). Thus, the escalation of offender violence depends upon some antagonizing action made by the victim and is simply a reaction to this provocation.

Resistance by the victim would be interpreted by Luckenbill (1977) as such an act of provocation.¹ Although resistance is a natural reaction under certain abusive conditions, this may be viewed by the offender as a valid indication of agreement to the use of violence within the interpersonal exchange. Whether as an initiation of violence or an encouragement of its continuance, victim resistance serves as its own signature to the agreement of violence. Although the victim is not actually necessarily agreeing to the use of violence (especially in sexual assault cases, where the victim is often simply attempting to escape or stop the assault, as opposed to punishing the offender), the offender may *perceive* victim resistance as an invitation for further violence and coercion.

¹ Although it may appear that some of the presented perspectives attribute blame to the victim for the occurrence and severity of the crime, this did not seem to be the intent of any of the theorists, nor is that the intent of the current study. The focus remains simply on the potential impact that the dynamic created during a sexual assault between offender and victim may have on crime progression and escalation. Unwittingly, the victim becomes a major part of this dynamic when the offender initiates an assault.

The victim's choice to resist or comply with an attacker is based on a series of participant role-related conditions (Luckenbill, 1982). The likelihood of resistance is at its greatest when the threats by the offender are severe, when the offender has an implicit capacity to inflict the threatened coercion, when the threats are believable, and when the victim is incapable of opposing (Luckenbill, 1982). Each of these conditions may be affected by factors such as weapon possession (by offender or victim), physical size and strength of both players, and available resources. However, given the nature of interpersonal interactions, role-related conditions may emerge and change over the course of the interchange (Luckenbill, 1982). Thus, the offender's original attack strategy may affect the level of victim resistance differently dependent upon when the offender decides to brandish his weapon or at what point he attempts to humiliate or degrade his victim.

The factors that influence a victim's decision-making with regard to resistance affects the entire coercive interchange, as offender actions are often based on the actions of others in the interaction (Luckenbill, 1977). Thus, an awareness of factors that increase the magnitude of victim resistance is crucial to the understanding of the criminal event. However, Luckenbill's (1982) focus on the target's decision-making eludes the factors relevant to the offender's decision-making (Beauregard & Leclerc, 2007). Whether or not an offender views coercion as a warranted or necessitated response to victim resistance or perceived antagonization is an important aspect of an abusive interchange. Thus, the current study proposes to examine the offender's point of view to determine

when the victim's actions were perceived as resistance and the response to that resistance.

1.3 Victim Resistance and the Criminal Event

As supported above, 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. Interactions between victim and offender become exceptionally important within this particular context, as the resistance itself is a reaction to the actions of the offender. We are especially interested in how this victim reaction influences the subsequent coerciveness used by the offender. Research has shown that the level of victim resistance is specifically influenced by, among other factors, time of day, the presence of a weapon, and the presence of alcohol (Clay-Warner, 2003). In reviewing the literature on rape avoidance, Ullman (2007b) found that rape completion is related to the amount and immediacy of resistance, with more forceful and more immediate resistance increasing rape avoidance. Furthermore, the level and type of resistance has been shown to match the offender's initial level of violence during the assault (Nurius, Norris, Young, Graham, & Gaylord, 2000; Ullman, 1998, 2007b; Ullman & Knight, 1992). Thus, if an offender attempts to verbally coerce or threaten his victim, the victim will likely utilize screaming and pleading in an attempt to stop the sexual assault. However, if the offender physically attacks the victim, the victim is more likely to use a similar level of physical forcefulness to avoid the assault. Despite its

potential to either stop or intensify a sexual attack, victim resistance has received little direct focus within the literature (Ullman, 1998).

Research has focused on determining what situational factors increase violence levels within sexual assaults (Carr & VanDeusen, 2004; Coker, Walls, & Johnson, 1998; Hartwick, Desmarais, & Hennig, 2007; Porter & Alison, 2006; Scott & Beaman, 2004; Weaver, Wittekind, Huff-Corzine, Corzine, Petee, & Jarvis, 2004; Wilcox, Jordan, & Pritchard, 2006), but most studies give no significant consideration to how this relates to victim resistance. However, as discussed previously, Ullman has determined that particular situational and crime factors influence the efficacy of resistance (Ullman & Knight, 1993) but that, in general, the likelihood of victim injury and rape completion outcomes is reduced when the victim resists to the greatest extent possible.

However, other situational variables appear to be important in their effects on offender coercion as well. Two situational variables frequently reported to affect the level of violence in a sexual assault are the presence of a weapon and the use of alcohol and/or drugs. Overall, the presence of a weapon has been found to significantly increase victim injury and violence levels, as well as the proportion of completed rapes (Coker et al., 1998; Porter & Alison, 2006; Ullman, 2007b; Ullman & Knight, 1993; Weaver et al., 2004). The use of alcohol or drugs has been reported to increase the level of violence and likelihood of rape completion, effects potentially due to reduced victim resistance (Carr & Vandusen, 2004; Coker et al., 1998; Scott & Beaman, 2004; Ullman, 2007b; Ullman & Knight, 1993). Furthermore, there has been some research regarding

the home environment of the victim, with findings that a victim with a criminogenic background is less likely to encounter an escalation of violence resulting in homicide during a sexual assault (Mieczkowski & Beauregard, 2010). This is presumably due to the victim's previous encounters with violence, abuse, or criminal activity; such a victim would potentially be more experienced and knowledgeable about dangerous situations and be accustomed to reacting in a self-preserving manner.

The level and type of relationship between offender and victim has also 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 et al., 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 et al., 2006; Ullman, 2007b). 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, 2007a).

Evidently, this area requires more research to determine the true nature of this relationship.

1.3.1 Child versus Adult Victims

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, race, and, most important to the current analyses, age. Researchers have supported this notion, either expressly or indirectly, by intentionally limiting their sample of interest to either child molesters (for example, Levenson, Becker, & Morin, 2008; Ullman, 2007a; Wood & Riggs, 2008) or sex offenders against adults (for example, Brecklin & Ullman, 2005; Carr & Vandeusen, 2004; Clay-Warner, 2003; Galliano, Noble, Travis, & Puechl, 1993; Hartwick et al., 2007; Scott & Beaman, 2004; Ullman, 1998; Ullman & Knight, 1992, 1993, 1995) or by comparing these groups or employing an age variable in their analyses (for example, Beauregard, Stone, Proulx, & Michaud, 2008; Coker et al. 1998; Mieczkowski & Beauregard, 2010; Scott & Beaman, 2004; Spohn, 1994; Weaver et al. 2004). This observed age dichotomy demonstrates the substantial expected difference between offenders who target young victims and offenders who target adults.

In general, studies indicate that offenders are most likely to escalate the degree of violence when offending against adult victims (Hunter, 2008; Scott & Beaman, 2004; Spohn, 1994; Weaver et al. 2004), although Coker et al. (1998) indicate a decline in traumatic injury to sexual assault victims over the age of 21.

Attempting to divulge dissimilarities between offenders who choose child versus adult victims by comparing between studies offers only indirect suggestions. For instance, Kaufman and colleagues (2006) emphasize the importance of situational factors that allow opportunity structures conducive to child sexual abuse to emerge. In particular, the authors note the way that offenders use a child's vulnerability as well as crime facilitators (such as pornography exposure and desensitization to physical contact) to create and maintain offending opportunities. In contrast, Hartwick et al. (2007) determined the use of guilt and intoxication as the most common offender strategy against adult victims; the former was more prevalent when the offender and victim had a prior relationship and the latter when the offender was a stranger to the victim. Additionally, Carr and VanDeusen (2004) cited offender pornography use and alcohol abuse as predictors of adult sexual violence and Ullman and Knight (1993) found drug and alcohol use to be a contributing factor to increased severity of sexual abuse and physical injury. Thus, the strategies employed by the offender appear to differ in accordance with the age of the victim, and subsequently affect the crime progression and escalation.

1.4 Aims of Studies

As can be seen from previous studies, victim resistance has been examined in its effects on two outcomes: victim injury and/or sexual assault completion. Although these are pertinent factors to investigate, the present research shifts the focus from these more terminal outcomes to the more direct relationship between the victim's resistance and the offender's immediate

reaction to that resistance. There could very well be a multitude of factors that come into play between when the victim resists and her later injuries (e.g., victim frailty) or whether the crime results in its completion (e.g., interference of a bystander). However, the dependent variable throughout the present analyses questions the *offender* (rather than the victim) as to his *direct response* to that resistance. Thus, not only is the variable relationship more direct with little to no moderating effects between victim resistance and offender reaction (whether coercive or not), but, furthermore, the information is elicited from the offender's perspective, as opposed to the victim's point of view. This allows an examination into the decision-making process of the offender based on his situational perceptions, which ultimately direct his intent and behaviour. The current studies propose to identify and assess situational and crime variables that affect the *offender's reaction to victim resistance* during the course of a sexual assault. Specifically, the event characteristics of sexual assaults involving victim resistance will be examined to determine which variables increase the likelihood of offender violence. Moreover, the sexual abuse literature is currently in need of further studies in the area of situational and crime-specific factors, the pertinent interactions between these factors, and how these change depending upon whether the victim is a child or an adult. Thus, the current studies also attempt to address all of these shortcomings with a specific focus on an offender's reaction to resistance from the victim.

CHAPTER 2: METHODS

2.1 Participants

All adult males serving a sentence of at least 2 years for a sexual crime in a Canadian federal penitentiary in the province of Quebec were recruited for a survey between April 1994 and June 2000. The participation rate was 93%, 624 inmates agreeing to collaborate with the research team. 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). Because both studies focused on factors affecting offender reaction to victim resistance, only cases involving victim resistance were included in the analyses (n = 426).² 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%). Since the second study focused on the comparison of those who offended against children to those who offended against adults, those cases involving offenses against adolescent victims were excluded from a portion of that particular set of analyses. Furthermore, 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.

² Five participants were dropped from the current study because of too many missing values, and an additional nine cases that were shown to be multivariate outliers were also dropped.

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 – most important to the current study – pre-crime, crime, and post-crime factors. 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 .87, indicating very strong agreement.

2.3 Measures

2.3.1 Dependent Variable

Offender reaction to victim resistance was a measure of the level of violence employed by the offender in response to resistance from the victim during the sexual assault. This variable was dichotomized for Study 1 (0 = non-

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.

violent reaction, 1 = *violent reaction*). The frequencies for these variables can be found in Table 1. A violent reaction was considered to have occurred when the offender employed threats or physical force when faced with resistance from the victim during the commission of the sexual assault. A non-violent reaction by the offender consisted of stopping, running away, or using negotiation. Among the 426 sex offenders included in the study, 250 (58.7%) reacted violently and 176 (41.3%) reacted non-violently.

	N	%
Offender reaction to victim resistance (Study 1)		
Violent	250	58.7%
Non-violent	176	41.3%
Offender reaction to victim resistance (Study 2)		
Physical coercion	213	50.0%
Verbal coercion	103	24.2%
No coercion	110	25.8%

For Study 2, this variable was trichotomized (0 = *no coercion*, 1 = *verbal coercion*, 2 = *physical coercion*) (see Table 1). 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. Thus, both verbal and physical coercion demonstrated

differing forms of escalation to overcome victim resistance. Among the 426 sex offenders included in the study, 213 (50.0%) reacted to victim resistance with physical coercion, 103 (24.2%) reacted with verbal coercion, and 110 (25.8%) did not react coercively to victim resistance.

2.3.2 Victim Characteristics

Three victim characteristics were selected: victim gender (0 = *female*, 1 = *male*); victim age (0 = *under 12 years old*, 1 = *13-15 years old*, 2 = *over 16 years old*); and victim from poor/dysfunctional background (0 = *no*, 1 = *yes*) (see Table 2).

	N	%
Victim gender		
Female	364	85.4%
Male	62	14.6%
Victim age		
≤ 12 years old	143	33.6%
13-15 years old	57	13.4%
≥ 16 years old	226	53.1%
Poor/dysfunctional background		
No	276	64.8%
Yes	150	35.2%

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' reactions to victim resistance are expected to depend on the type of victim they are inclined to target.

2.3.3 Situational Variables

Six situational variables were included in the analyses: alcohol and/or drug use before the crime (0 = *no*, 1 = *yes*); pornography consumption prior to the crime (0 = *no*, 1 = *yes*); premeditation of the crime (0 = *no*, 1 = *yes*); time of the crime (0 = *day*, 1 = *night*); level of offender-victim intimacy (0 = *stranger*, 1 = *known/friendly*, 2 = *romantic relationship*)⁴; and type of victim resistance (0 = *low level/passive*, 1 = *verbal*, 2 = *physical*) (see Table 3). Both alcohol or drug use and pornography consumption prior to the crime referred to use of these materials within a few hours before the commission of the assault. This information was gathered from the offender during the interview, but was corroborated by official data. Situational variables encompass the hypothesis that

⁴ Level of offender-victim intimacy was trichotomized from the original four-level categorical variable, because the literature shows that the most substantial differences are those between stranger-perpetrated and acquaintance-perpetrated assaults (for example, Weaver et al., 2004; Wilcox et al., 2006), with level of acquaintance a less important dimension. However, sexual assaults between members of an intimate partnership (courtship rape) have been shown to be among the most common types of sexual assaults (Baumeister et al., 2002; Gidycz et al., 2006; Ullman, 2007b) and, thus, were maintained separate from acquaintance-level relationships.

pre-crime variables can have an effect on the likelihood of offender violence within the commission of a sexual assault.

Table 3: Univariate Descriptors of Situational Variables

	N	%
Alcohol or drugs		
No	167	39.2%
Yes	259	60.8%
Pornography		
No	378	88.7%
Yes	48	11.3%
Premeditation		
None/unstructured	301	70.7%
Structured	125	29.3%
Time of crime		
Day/both day and night	202	47.4%
Night only	224	52.6%
Offender-victim intimacy		
Stranger	94	22.1%
Known/friendly	148	34.7%
Romantic relationship	184	43.2%
Type of resistance		
Low level/passive	88	20.7%
Verbal	116	27.2%
Physical	222	52.1%

2.3.4 Crime Characteristics

Five crime-characteristic variables were included in the analyses: strategies to commit the crime (0 = *no specific strategy*, 1 = *nonviolent persuasion*, 2 =

violent persuasion)⁵; weapon use (0 = *no*, 1 = *yes*); humiliation of the victim (0 = *no*, 1 = *yes*)⁶; time spent with the victim (0 = *less than 30 minutes*, 1 = *more than 30 minutes*); and nature of the sexual acts (0 = *nonintrusive*, 1 = *intrusive*) (see Table 4). Nature of the sexual acts referred to the presence or absence of penetration, with penile, digital, or object penetration being coded as intrusive.

	N	%
Strategies to commit crime		
No specific strategy	80	18.8%
Non-violent persuasion	85	20.0%
Violent persuasion	261	61.3%
Weapon use		
No	292	68.5%
Yes	134	31.5%
Nature of sexual acts		
Non-intrusive	110	25.8%
Intrusive	316	74.2%
Humiliation of victim		
No	296	69.5%
Yes	130	30.5%
Time spent with victim		
< 30 minutes	268	62.9%
> 30 minutes	158	37.1%

In general, crime variables describe factors over which the offender has direct control during the sexual assault. The offender must therefore make a

⁵ Originally, “strategies to commit the crime” was separated into nine different categories. In the current study, nonviolent persuasion included seduction, the use of money, gifts, games, or alcohol or drugs, and tricking or conning the victim. Violent persuasion consisted of threats and physical violence.

⁶ Humiliation was coded *yes* if there was a presence of offender behaviours with the direct intention of humiliating or degrading the victim. Humiliation could have been physical (e.g., urinating on the victim), verbal (e.g., degrading comments made towards the victim), or both physical and verbal.

decision with respect to each of these factors while the criminal event is taking place, and interactions with the victim and the victim's responses may affect some or all of these decisions.

As can be seen in all of the preceding tables (Tables 1-4), in no case did the percentage of a single category in any variable exceed 90%. This indicates that the cases are sufficiently distributed between categories to avoid approaching the designation of constant. Adequate variance is necessitated to conduct valid statistical analyses.

2.4 Analytical Strategy

In both studies, bivariate statistical analyses were first performed to test the relationships between the independent variables and the offenders' reactions to victim resistance during a sexual assault. Independent variables that were determined to be significant at the bivariate level were then included in the multivariate analyses.

A sequential logistic regression was chosen as the first multivariate analysis in Study 1, due to the dichotomy of the dependent variable. The main purpose of the logistic regression was to determine the model that best predicted a violent reaction by sex offenders to victim resistance. Sequential logistic regression was used so that variables could be entered into the model according to their logical sequence of occurrence during the criminal event (victim characteristics, pre-crime, during crime). Furthermore, the comparison of the sequential blocks of independent variables allows the detection (although not a clear delineation) of potential moderation effects between blocks.

Following the sequential logistic regression in Study 1 and acting as the main focus of analyses in Study 2, Exhaustive *Chi*-squared Automatic Interaction Detection (CHAID) was performed to identify interactions and relationships between the independent variables that affect the prediction of the dependent variable. CHAID is a type of statistical technique referred to as a decision tree, which was first devised by Kass (1980) as an extension of Automatic Interaction Detection (AID) with the integration of *chi*-square analyses of interactions. Thus, CHAID automatically computes a series of cross-tabulations for all pairs of independent variables (Hoare, 2004). The most significant of these cross-tabulation results are then incorporated into a classification tree. An exploratory technique, the tree divides the data into mutually exclusive subsets – or nodes – that exhaust all of the data and are the best combination to describe and predict the dependent variable (Kass, 1980). The ordering of each successive split of the data is an important feature of CHAID. The top node contains all of the data and the most significant variable associated with the dependent variable determines the first split (Hoare, 2004; Wilkinson, 1992). Each node, or group of cases, is then sequentially split based on the significance of variables and interactions within that node. This splitting process is continued until a stopping rule is invoked or until there are no more variables that significantly split the remaining cases.

In the present analyses, a variation on the CHAID procedure known as Exhaustive CHAID (Biggs, De Ville, & Suen, 1991) was used. It differs slightly in its algorithm, but optimizes the selection of the appropriate variable splitting by a

more thorough generation of predictor-to-outcome comparisons. Ordinary CHAID may potentially stop testing ways to split the sample upon discovery of a way to make all groups statistically different; Exhaustive CHAID, alternatively, continues to test all possible ways of splitting the sample until the strongest and best predictors are elucidated (Struhl, 2002). Exhaustive CHAID was chosen as the main procedure for these studies because of an interest in the statistical interactions among independent variables and the prediction that these interactions will be important in determining offenders' reactions to victim resistance. Furthermore, the exploratory nature of the technique was attractive, given the relatively unexplored status of the area examining victim resistance within sexual offenses. In Study 2, separate Exhaustive CHAID analyses were conducted on the full sample and then those cases with child victims (12 years and younger) and those with adult victims (16 years and older) to produce three separate Exhaustive CHAID models.

Finally, the predictive accuracies of each Exhaustive CHAID model were tested using Receiver Operating Characteristic (ROC) analysis. Essentially, ROC depicts tradeoffs between benefits (true positives) and costs (false positives) of the predictability of a model (Fawcett, 2006). The ROC also gives a measure of the area under the curve (AUC), which represents the probability that the model will correctly rank outcomes (Fawcett, 2006). The closer the AUC is to 1.00, the better the predictability of the model, with an AUC of 0.5 indicative of a model that does not predict the dependent variable better than mere chance alone.

CHAPTER 3: RESULTS

3.1 Study 1

Pearson *chi*-square tests of independence were analyzed to determine if each of the independent variables were related to the dependent variable. With the exception of victim from poor/dysfunctional background and premeditation, all of the independent variables were significantly related to the dependent variable (see Table 5).

Table 5. Bivariate analyses (*Chi*-square) between victim, situational, crime variables and the offender's reaction to victim resistance (Study 1)

Variables	Pearson <i>Chi</i> -Square	df	<i>Phi</i>
Victim characteristics			
Victim gender	13.948	1	-.181***
Victim age	135.164	2	.563***
Poor/dysfunctional background	0.000	1	.000
Situational variables			
Alcohol or drugs	25.398	1	.244***
Pornography before crime	6.462	1	-.123*
Premeditation	0.326	1	.028
Time of crime	29.461	1	.263***
Offender-victim intimacy	31.015	2	.270***
Type of victim resistance	120.658	2	.532***
Crime variables			
Strategies to commit crime	190.282	2	.668***
Weapon use	84.430	1	.445***
Nature of sexual acts	4.614	1	.104*
Humiliation of victim	83.287	1	.442***
Time spent with victim	74.164	1	.417***

* $p < .05$, ** $p < .01$, *** $p < .001$

The first multivariate analysis was the development of a sequential logistic regression model that best predicted the “offender reaction” outcome. As can be seen in Table 6, the six variables that provided significant ($p \leq .05$) additions to the explained variance of the model at their point of entry were retained for the parsimonious model: victim age; type of victim resistance; strategies to commit the crime; weapon use; humiliation of the victim; and time spent with the victim. The model was significant at all blocks, with explained variance – as calculated by Cox and Snell R^2 – increasing with each subsequent block addition from .286 in Block 1 to .363 in Block 2 to .508 in Block 3. The AUC also increased with each block addition, from .794 in Block 1 to .850 in Block 2 to .932 in Block 3 (Figure 1), indicating a high level of discriminatory accuracy (Swets, 1988).

With reference to the type of victim resistance, results indicate that offenders were less likely to become violent when they encountered low level/passive resistance ($OR = .23$; $p < .001$) or verbal resistance ($OR = .18$; $p < .001$) as compared to physical resistance. When an offender used a weapon, the outcome of the sexual assault involving victim resistance was 2.22 times more likely to be violent. When the offender resorted to humiliation, victims who resisted were 7.49 times more likely to be subjected to physical violence. When the offender spent more than 30 minutes with the victim, the outcome was 2.49 times more likely to be violent if the victim resisted.

The second multivariate analysis to be conducted was an Exhaustive CHAID. The variables that had been found to be significant at $p \leq .25$ at some point in the sequential logistic regression models were entered into the

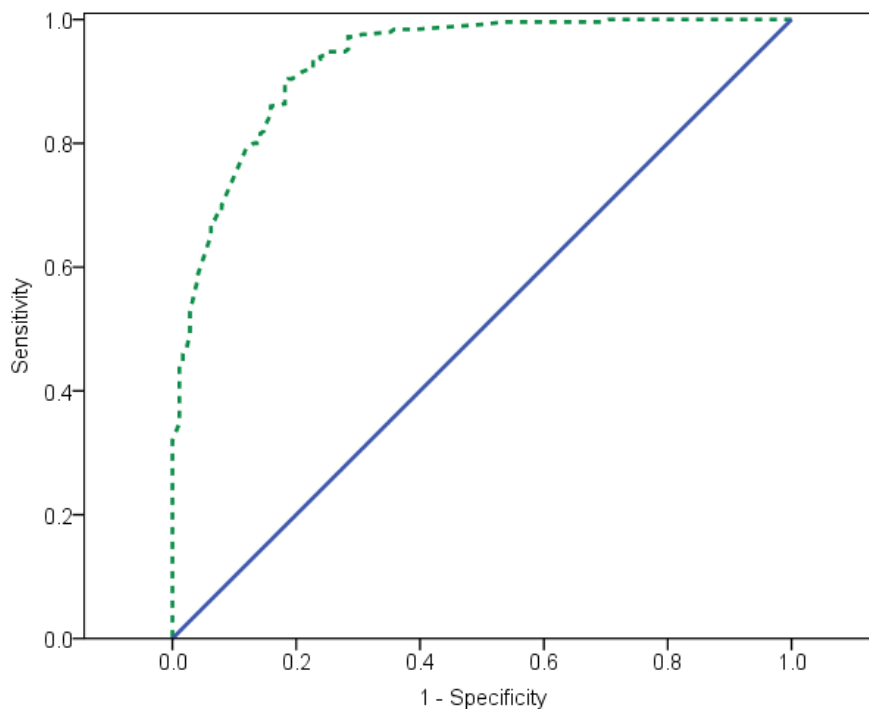
Table 6. Parsimonious sequential logistic regression model of offender's reaction to victim resistance (Study 1).

Predictor	Block 1					Block 2					Block 3				
	B	SE	Sig	OR	95% CI	B	SE	Sig	OR	95% CI	B	SE	Sig	OR	95% CI
Victim characteristics															
Victim age (≥ 16 years)			.00					.00					.18		
≤ 12 years	-2.75	.27	.00	.06	.04-.11	-2.14	.29	.00	.12	.07-.21	-.63	.39	.11	.53	.25-1.15
13 – 15 years	-2.16	.33	.00	.12	.06-.22	-1.80	.36	.00	.17	.08-.33	-.67	.47	.15	.51	.20-1.28
Situational variables															
Type resist (Physical)								.00					.00		
Low level/passive						-1.72	.33	.00	.18	.09-.34	-1.46	.43	.00	.23	.10-.54
Verbal						-1.85	.30	.00	.16	.09-.28	-1.72	.39	.00	.18	.08-.39
Crime variables															
Strategies (Violent)													.00		
No strategy											-2.19	.47	.00	.11	.04-.28
Non-violent											-1.43	.43	.00	.24	.10-.55
Weapon use											.80	.40	.05	2.22	1.00-4.90
Humiliation											2.01	.43	.00	7.49	3.26-17.25
Time with victim											.91	.36	.01	2.49	1.24-4.99
AUC			.794					.850					.932		
Cox & Snell R ²			.286					.363					.508		
Hosmer & Lemeshow Sig			-					.235					.259		

Note. Variable names have been shortened due to space constraints; full variable names are available in-text; B = beta weights; SE = standard error; Sig = significance; OR = odds ratio; CI = confidence interval; AUC = area under the curve.

Exhaustive CHAID model⁷. Of the 14 variables initially entered into the logistic regression model, only two – victim from poor/dysfunctional background and pornography consumption – did not achieve this significance level and therefore were left out of the Exhaustive CHAID analysis.

Figure 1. Receiver Operating Characteristic (ROC) analysis of the ability of the parsimonious sequential logistic regression model to predict sex offender reaction to victim resistance (Study 1).



Area under the curve (AUC) = .932

The remaining 12 variables were entered into the Exhaustive CHAID analysis to determine the interaction model that best estimated the violent reactions by sex offenders upon encountering victim resistance. The resulting Exhaustive CHAID classification tree is presented in Figure 2. The percentage of

⁷ A cut-off point of .05 would have been too conservative and may have excluded variables that had interaction effects with other variables (Hosmer & Lemeshow, 2000).

cases that involved violent and non-violent reactions is presented with each box (node). The level with the highest percentage within each node represents the associated offender response at that point in the classification tree.

The specifications of the Exhaustive CHAID tree were dependent upon the factors that increased the classification accuracy. Various models were run, and the presented model is the best-fitting, most predictive model⁸.

As Figure 2 indicates, the variable most strongly associated with offender reaction to victim resistance is the offender's strategy. This variable classifies the sample into two nodes – one in which the offenders report no specific strategy to commit the offence or utilize a non-violent persuasive strategy. Within this node, a non-violent reaction is identified in 82.4% of cases ($n = 136$) and violent reactions occurring in 17.6% of cases ($n = 29$). This node interacted with the level of victim resistance and, as might be expected, verbal or passive resistance is associated with a non-violent reaction and physical resistance is associated with a violent reaction. When victim resistance was passive or verbal, violence was encountered in 8.3% of cases ($n = 11$), whereas non-violent reactions took place in 91.7% of cases ($n = 122$). Victims who physically resisted elicited violent reactions in 56.2% of cases ($n = 18$) and non-violent reactions in 43.8% of cases ($n = 14$).

If an offender began, however, with a violent persuasive strategy, violence is the response consistently identified by the model: violence took place in 84.7% of cases ($n = 221$) and non-violent reactions in only 15.3% ($n = 40$). This gives an

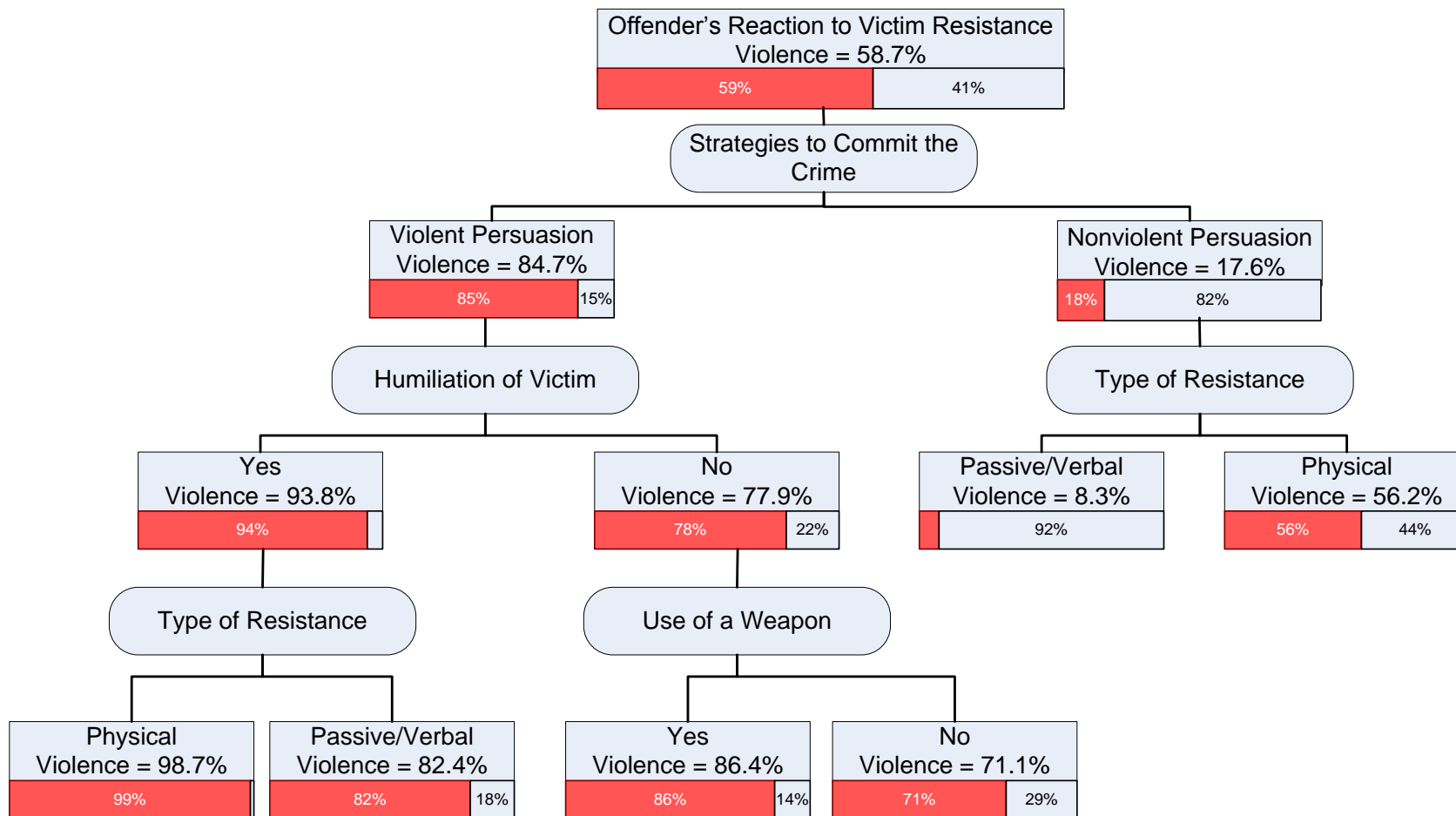
⁸ The tree depth was set at four levels, with a minimum of 40 cases in the parent nodes (which could be split further by other variables) and 20 cases in the child nodes (which could not be split further). Cross-validation was utilized, with three sample folds, to ensure greater validity.

indication of the importance of the first splitting variable, offender strategy. A violent persuasive strategy interacts with humiliation of the victim, so that humiliation is associated with a greater likelihood of a violent reaction to victim resistance. When the offender subjected the victim to humiliation, violence was present in 93.8% of cases ($n = 105$) and no violence in only 6.2% of cases ($n = 7$). When the assault did not include humiliation, violence – although still the predicted response – was present in 77.9% of cases ($n = 116$) and a non-violent reaction to resistance occurred in 22.1% of cases ($n = 33$).

In the absence of humiliation of the victim, possession of a weapon is an important predictor of violence. Violence increased when the offender was in possession of a weapon, with 86.4% of cases ($n = 57$) resulting in violence and 13.6% of cases ($n = 6$) not resulting in violence. When the offender did not possess a weapon, the likelihood drops: 71.1% of offenders ($n = 59$) became violent, while 28.9% of offenders ($n = 24$) did not.

Interestingly, when the offender does humiliate the victim during the sexual assault, the type of resistance by the victim is again identified by the CHAID model. Again, passive and verbal resistance were combined by the model and compared to physical resistance, with the results indicating a greater probability of violence in the case of physical resistance. When the victim passively or verbally resisted, violence occurred in 82.4% of cases ($n = 28$) and a non-violent reaction in 17.6% of cases ($n = 6$). When the victim physically resisted, offender violence was present in the highest proportion in the entire

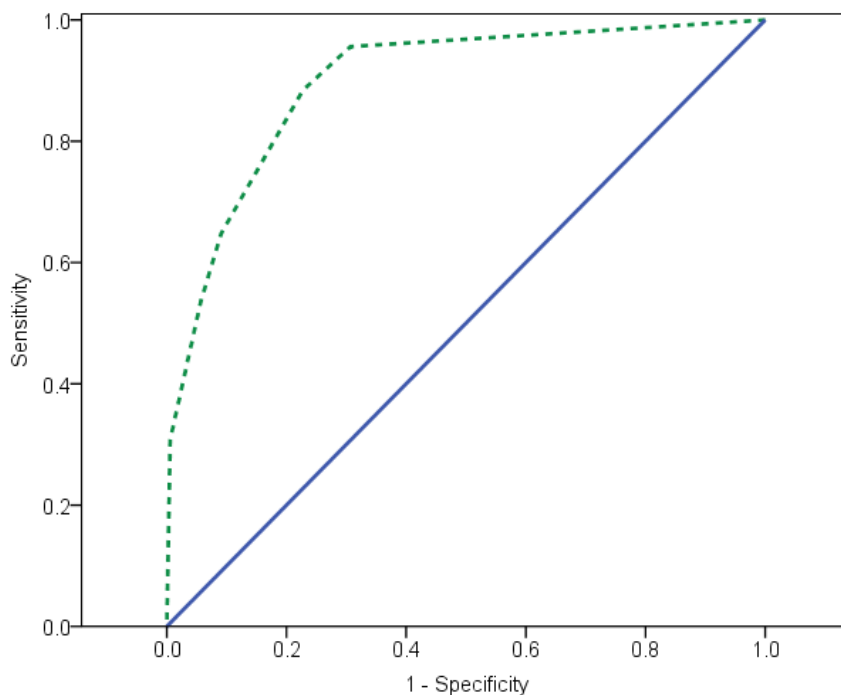
Figure 2. Exhaustive CHAID decision-tree of victim, situation, and crime characteristics on offender's reaction to victim resistance (Study 1).



model, with 98.7% of offenders ($n = 77$) reacting violently to victim resistance and only 1.3% of offenders ($n = 1$) reacting non-violently.

The overall classification accuracy of the CHAID tree was 84.7%, indicating that the model correctly classified 84.7% of cases as either violent or non-violent. To test the usefulness of the Exhaustive CHAID model in classifying offender violence upon encountering victim resistance during a sexual assault, the model was subjected to a ROC analysis (Figure 3). The AUC for the Exhaustive CHAID model was .898, indicating a good to high level of discriminatory accuracy (Swets, 1988).

Figure 3. Receiver Operating Characteristic (ROC) analysis of the ability of the Exhaustive CHAID model to predict sex offender violence in reaction to victim resistance (Study 1).



Area under the curve (AUC) = .898

3.2 Study 2

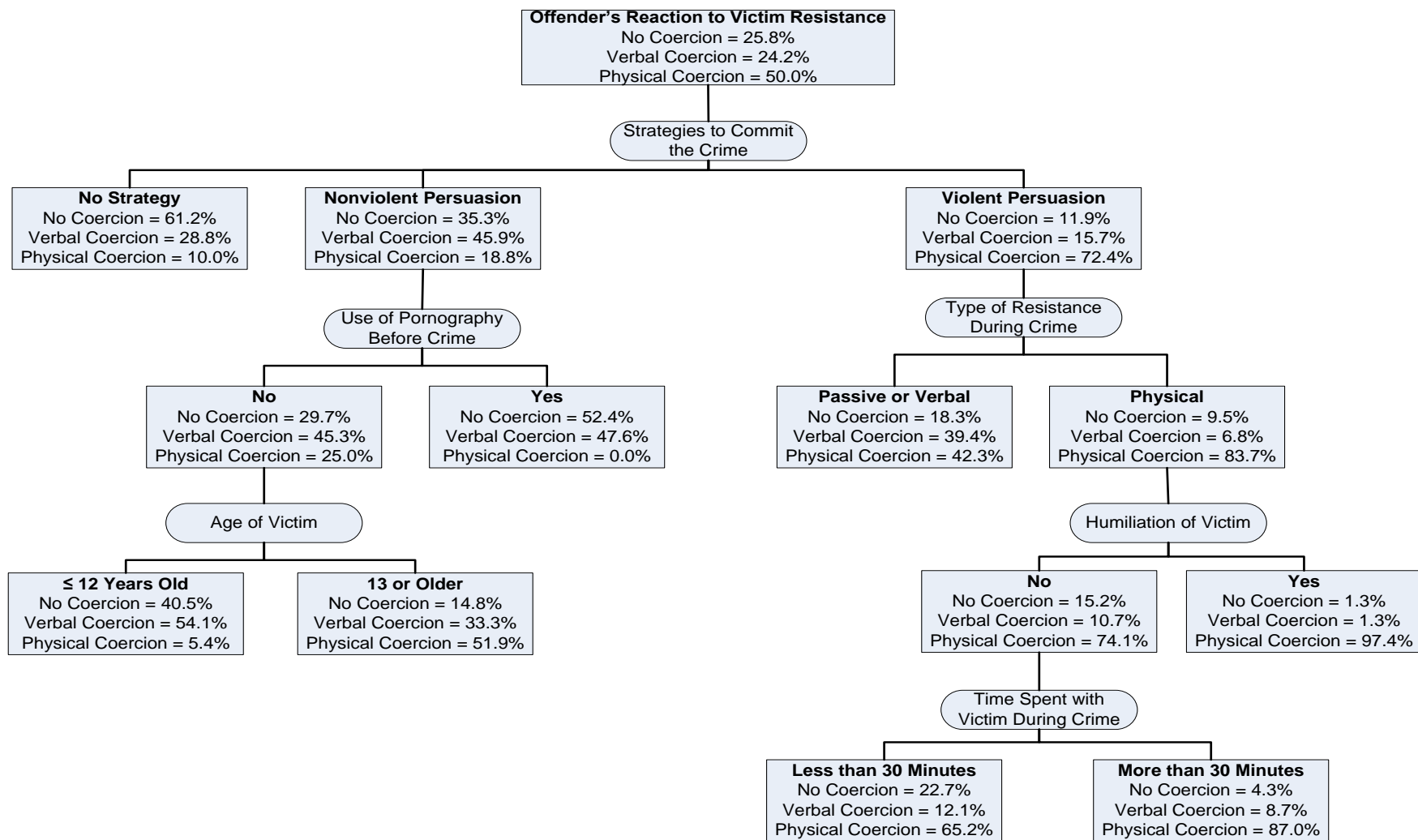
The main purpose of Study 2 was to determine the effect of victim age on how an offender reacts to victim resistance. Building upon the results of Study 1, three separate Exhaustive CHAID analyses were conducted within the present study so that comparisons could be made between the full sample, the adult victim sample, and the child victim sample. All 14 variables were entered into the Exhaustive CHAID analyses to determine the most predictive interaction models to estimate the probability that sex offenders will become violent upon encountering victim resistance. The resulting Exhaustive CHAID classification trees are presented in Figures 4, 6, and 8. Within each box – or node – the percentage of cases that involve no coercion, a verbally coercive reaction, and a physically coercive reaction are presented. The level with the highest percentage within each node represents the predicted offender response at that point in the classification tree⁹.

3.2.1 Full Sample Exhaustive CHAID Model

As can be viewed in the first Exhaustive CHAID tree in Figure 4, the first split from the complete sample (n = 426) at the top of the tree is the strategy used by the offender to commit the sexual offense. The fact that this variable is

⁹ As in Study 1, the specifications of the Exhaustive CHAID trees were dependent upon the factors that increased the classification accuracy. The tree depth was set at a maximum of four levels and cross-validation was utilized with three sample folds to ensure greater validity. A minimum of 30 cases was set within the parent nodes (those nodes that could be split further by other variables) and 15 cases within the child nodes (those nodes that could not be split further) for each tree. Although CHAID methods produce stronger and more statistically reliable results with larger samples (as do most multivariate statistical techniques), allowing sample sizes to go as low as 15 within terminal nodes was supported (Kass, 1980).

Figure 4. Exhaustive CHAID decision tree of victim, situation, and crime characteristics on offender’s reaction to victim resistance for the full sample (child and adult victims) (Study 2).



the first variable to begin the classification process designates it as the most significant predictor of offender reaction to victim resistance (Hoare, 2004). When the offender incorporates no specific strategy to commit the offense and simply acts directly on the victim, a noncoercive reaction is predicted; no coercion was presented in 49 cases (61.2%). When the offender commits the crime using a nonviolent persuasive strategy, the chances for both verbal coercion and physical coercion increase, and the predicted response within this node rises from no coercion to verbal coercion. This node interacts with pornography use so that pornography consumption decreases the level of offender violence and no coercion becomes the predicted response, present in 11 cases (52.4%). Alternatively, a lack of pornography consumption is associated with a verbally coercive response, as evidenced in 29 cases (45.3%). When no pornography is involved, this further interacts with the age of the victim so that victims 13 years and older are at greater risk of a physically coercive response to their resistance. Within this node, 14 cases (51.9%) encompassed subjection to physical coercion – the predicted response within this node.

Descending a different pathway, if an offender begins with a violent persuasive strategy, physical violence becomes the persistently predicted response within the model. This node interacts with the type of resistance by the victim so that physical resistance by the victim is related to a greater likelihood of physical coercion. There were 159 cases (83.7%) of physical coercion, compared to 30 cases (42.3%) for passive or verbal resistance. When the victim resists physically, this further interacts with the humiliation of the victim, so that

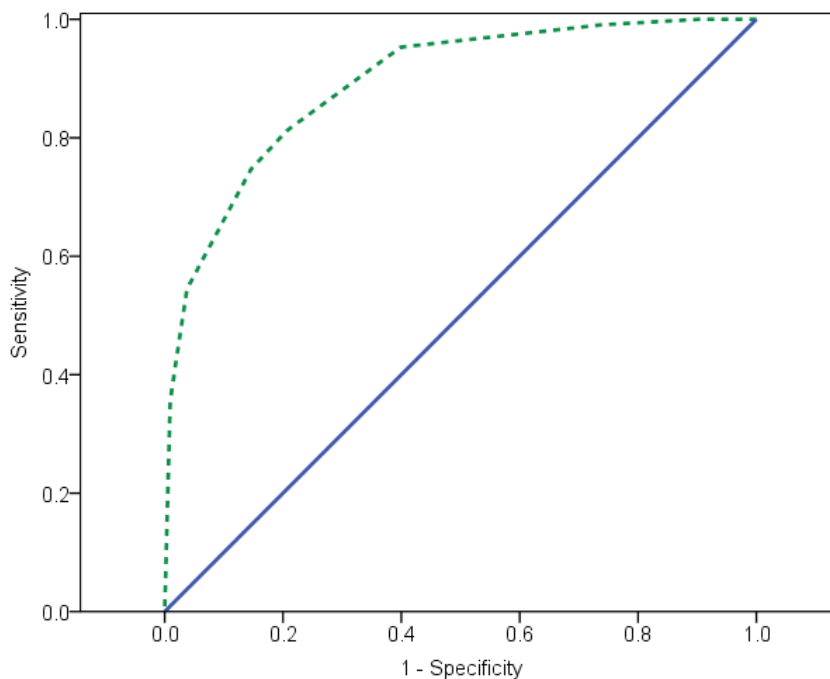
humiliation is associated with a greater likelihood of a violent reaction to this resistance. When the offender subjects the victim to humiliation, physical coercion is present at its highest proportion, occurring in 76 cases (97.4%). When no humiliation is present, the length of time spent with the victim becomes an important predictor of coerciveness. When the crime lasts for longer than 30 minutes, there is a higher propensity for physical coercion by the offender than if he spends less than 30 minutes with the victim.

The overall classification accuracy of the full sample model is 66.4%, which may seem to be a low level of accuracy. However, upon examination of the classification accuracy of each level of the dependent variable, the accuracy for classifying physical coercion in response to resistance – the target category and arguably the most theoretically important level to be able to predict – is a much higher 95.3%. No coercion by the offender was correctly classified 54.5% of the time and verbal coercion was correctly classified only 19.4% of the time. This suggests that the classification error is largely due to an inability of the classification tree to distinguish between situations in which no coercion will occur compared to situations in which verbal coercion will occur.¹⁰ When subjected to a ROC analysis (Figure 5), the area under the curve (AUC) for the

¹⁰ Incidentally, upon running a CHAID model with a dichotomous dependent variable in which no coercion and verbal coercion categories were collapsed, the classification accuracy jumped to 83.3%. As well, when dichotomized levels consisted of “no coercion to verbal insistence and negotiation” versus “threats and physical force” the classification accuracy jumped further to 84.7% – the results of Study 1. However, as mathematical laws would have predicted such a finding – it is inherently easier to predict between two levels than between three – the trichotomous dependent variable was retained for the additional information that it is able to provide about situations that may increase the chances for verbal coercion versus no coercion.

model is .892, indicating a good to high level of discriminatory accuracy (Swets, 1988) and, thus, an informative and predictive model.

Figure 5. Receiver Operating Characteristic (ROC) analysis of the ability of the full sample Exhaustive CHAID model to predict a physically coercive reaction to victim resistance (Study 2).

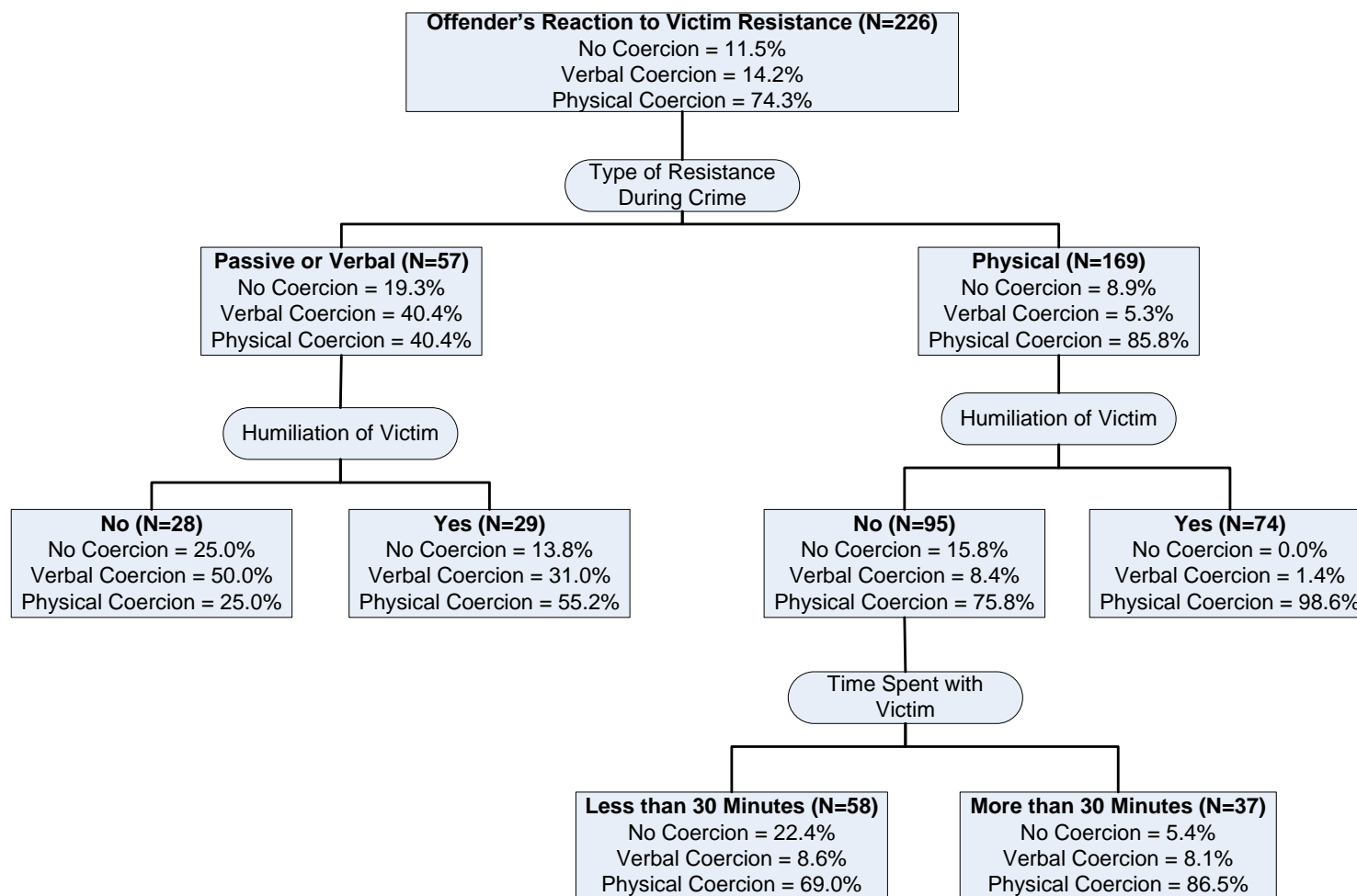


Area under the curve (AUC) = .892

3.2.2 Exhaustive CHAID Model for Adult Victim Sample

The second and third classification trees presented consist of only a portion of the full sample. The first of these tested for the factors most important to predict degree of coerciveness for situations involving adult victims (16 years and older; $n = 226$). As depicted in Figure 6, the first variable that splits this sample is the type of resistance by the victim. The fact that this variable is the

Figure 6. Exhaustive CHAID decision tree of victim, situation, and crime characteristics and their effect on offender's reaction to victim resistance for adult victim sample (Study 2).



first variable to begin the classification process designates it as the most significant predictor of offender reaction to victim resistance (Hoare, 2004). Physical resistance by the victim results in a higher likelihood of physical coercion, with 145 cases (85.8%) involving physical coercion. Furthermore, when interacting with other variables, descending from this node consistently predicts a physically coercive response. Comparatively, when the victim employs verbal or passive resistance, the number of physical coercion cases drops to 23 (40.4%), with an equal number of verbal coercion cases.

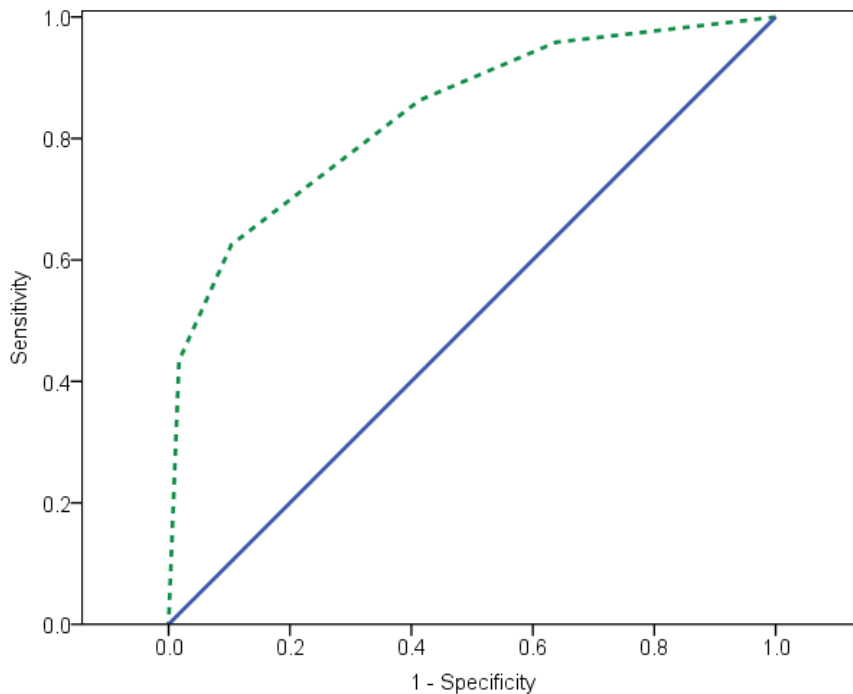
Both nodes present after the first division subsequently interact with the presence or absence of victim humiliation with a similar pattern evident in the increase in coerciveness when humiliation occurs. When this factor interacts with verbal or passive victim resistance, the lack of humiliation predicts a response of verbal coercion, which occurs in 14 cases (50.0%). The presence of victim humiliation, however, predicts a physically coercive response, with 16 cases (55.2%) resulting in such a response.

When the humiliation variable interacts with physical victim resistance, the presence of this factor creates the highest proportion of physical coercion within the model. Physical coercion occurs in 73 cases (98.6%), verbal coercion in only one case, and there were no cases without coercion. The absence of humiliation decreases the physical coercion occurrence to 72 cases (75.8%) and increases the verbal coercion cases to 8 (8.4%) and the no coercion cases to 15 (15.8%). This lack of humiliation node interacts further with the amount of time spent with the victim so that, once again, a crime that takes a longer time has an increased

likelihood of physical coercion. When less than 30 minutes are spent with the victim, physical coercion is seen in 40 cases (69.0%). If the offender spends more than 30 minutes committing his crime, however, the likelihood of physical coercion reaches the second highest proportion within the adult victim model at 32 cases (86.5%).

The overall classification accuracy appears to be much higher for the adult victim model than the previous, full sample model, with 77.4% correct classification. However, this model appears to best predict physically coercive

Figure 7. Receiver Operating Characteristic (ROC) analysis of the ability of the adult victim sample Exhaustive CHAID model to predict a physically coercive reaction to victim resistance (Study 2).



Area under the curve (AUC) = .839

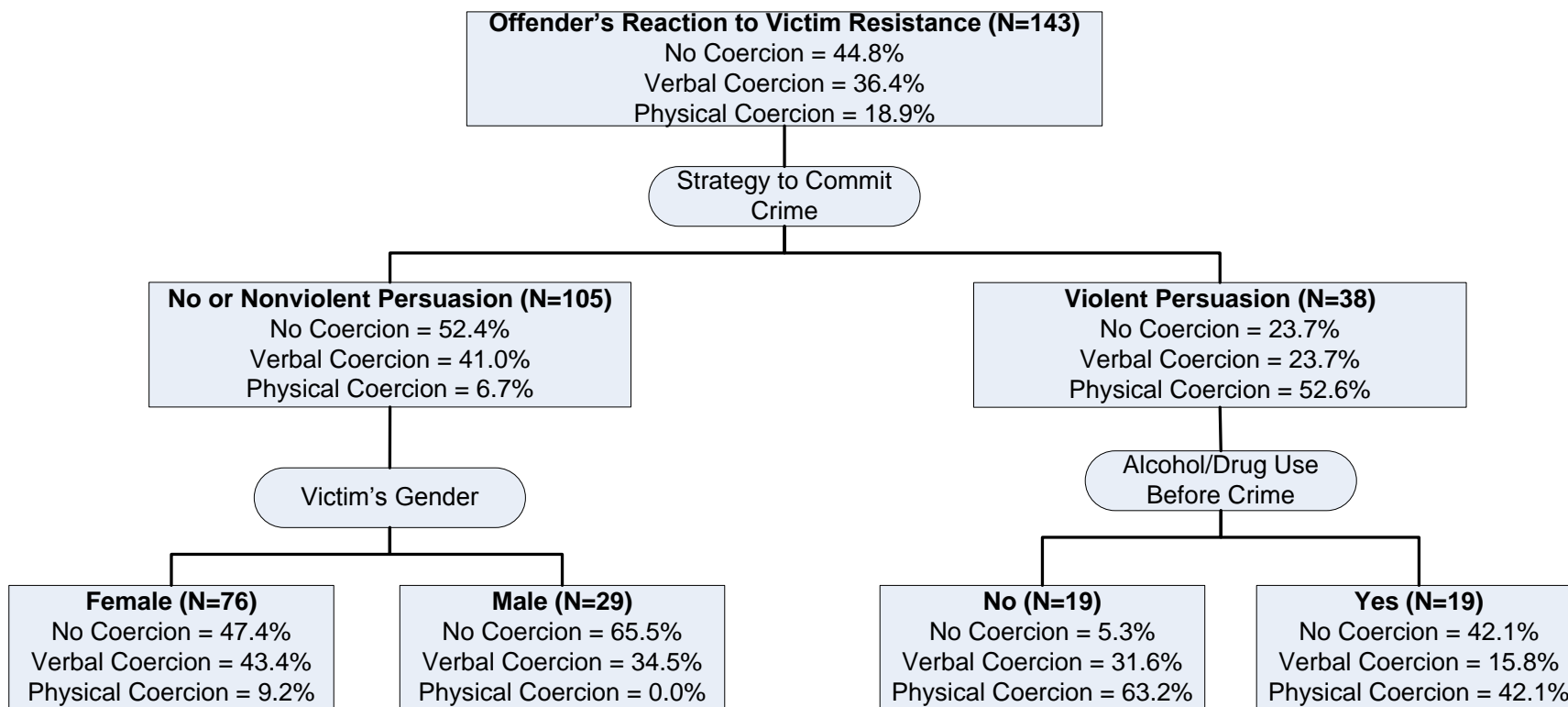
responses, with a classification accuracy of 95.8% for this level. The ROC analysis (Figure 7) showed a respectable ability of the model to predict physical coercion, with a resulting AUC of .839, reflecting a good level of accuracy (Swets, 1988).

3.2.3 Exhaustive CHAID Model for Child Victim Sample

The final model to be delineated consisted of only those cases involving child victims (12 years old and younger; $n = 143$). As shown in Figure 8, the first splitting variable is reminiscent of the first, full sample model as the strategy used by the offender to commit the offense; however, the trichotomous strategy variable collapses into a dichotomous factor. When there is no persuasion or nonviolent persuasion, no coercion is predicted in response to victim resistance, with 55 cases (52.4%) resulting as such. In comparison, when a violent persuasion strategy was utilized by the offender, physical coercion becomes the predicted response based on the finding that 20 cases (52.6%) involved physical coercion.

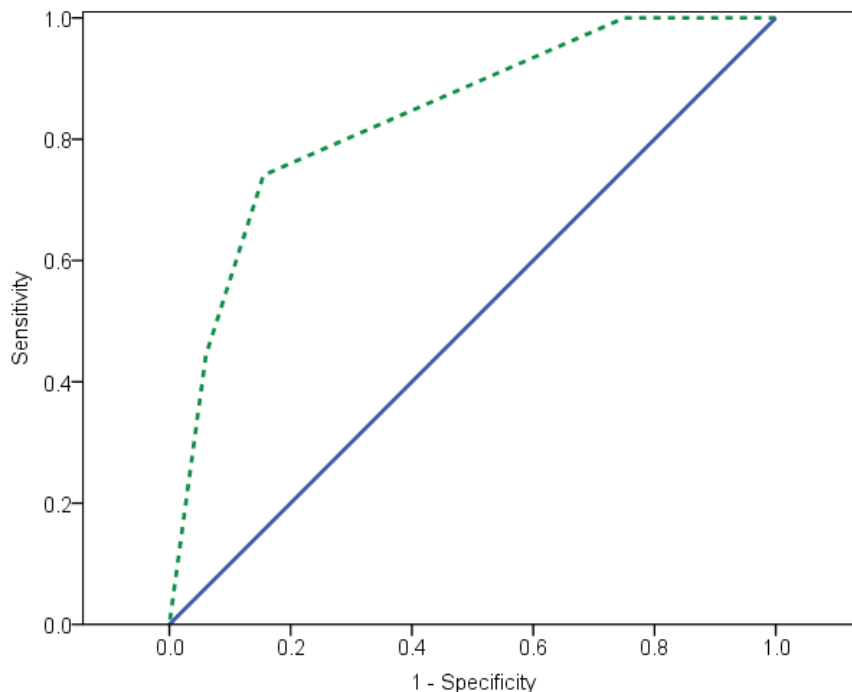
A nonviolent offender strategy interacted with the gender of the victim so that females are more at risk of encountering greater degrees of coerciveness than male victims. Although no coercion is predicted for both groups, male victims are associated with a greater proportion of noncoercive reactions from the offender. Female victims were more at risk of coercion, with 36 cases (47.4%) of no coercion, 33 cases (43.4%) of verbal coercion, and seven cases (9.2%) of physical coercion.

Figure 8. Exhaustive CHAID decision tree of victim, situation, and crime characteristics and their effect on offender's reaction to victim resistance for child victim sample (Study 2).



When the offender has consumed alcohol or drugs in the hours prior to the offense, the level of coerciveness in response to victim resistance is lower than when there was no use of such substances. When alcohol or drugs has been used, no coercion and physical coercion present with the same degree of likelihood, each occurring in eight cases (42.1%). When alcohol or drugs has not been utilized by the offender, physical coercion becomes the most likely situation in the classification tree. Physical coercion is present in 12 cases (63.2%), verbal coercion in six (31.6%), and no coercion in only one case (5.3%).

Figure 9. Receiver Operating Characteristic (ROC) analysis of the ability of the child victim sample Exhaustive CHAID model to predict a physically coercive reaction to victim resistance (Study 2).



Area under the curve (AUC) = .837

The classification accuracy of the child victim model is a relatively low 52.4%. Again, however, this model is best able to predict one particular level, with poor discriminative accuracy for the remaining two levels. In this sample, the model predicts no coercion with an accuracy of 98.4%. A ROC analysis (Figure 9) delineated an AUC of .837, indicating a good level of accuracy (Swets, 1988) in predicting physical coercion in this sample.

CHAPTER 4: DISCUSSION

Some victims of sexual assault do not resist the attacks of their assailants, often because they fear for their lives or are wary of the negative social consequences – such as embarrassment or rejection – that may result from misinterpreting or overreacting to a man’s cues (Galliano et al., 1993; Gidycz et al., 2006; Nurius et al., 2000; Rozee & Koss, 2001). Women especially are afraid that resistance will only serve to increase their chances of being injured or killed by their attacker (Rozee & Koss, 2001).

4.1 Offender Violence in Response to Victim Resistance

The results of the analyses presented here indicate that specific variables and interactions among variables increase the risk of sexual assault victims experiencing a violent reaction to their resistance. In Study 1, the most influential situational factor in both the logistic regression model and the CHAID model is the strategy used by the offender to commit the crime. If the offender uses a violent persuasive strategy, the most likely scenario is one of violence; even after interaction with other variables within the CHAID tree, violence remains the consistently predicted offender response. This relationship is logical, since it is reasonable to suppose that an offender who begins his crime in a violent manner is more likely to react violently to resistance from his victim. This violence may be due to personality characteristics that predispose the offender to act in a violent

manner (Carr & VanDeusen, 2004). However, it is also plausible that situational factors influence violence and increase the offender's anger or modulate other factors that increase aggression. Tark and Kleck (2004) have found that when victims who resisted were hurt, it was almost always injury that came first, suggesting that the offender had decided to use violence before any interaction with the victim.

The results of Study 1 also consistently found the type of victim resistance to be significant, and to interact with offender strategy. The importance of this variable, and specifically its interaction with offender strategy, is consistent with previous findings indicating that resistance strategies of the victim tend to match offender strategies (Nurius et al., 2000; Ullman, 1998, 2007b; Ullman & Knight, 1992). Essentially, if the offender begins the assault using physical aggression, the victim is more likely to react with physical resistance. Furthermore, Scott and Beaman (2004) report physical resistance by adult women to be triggered by threats with a weapon or being physically hit or punched. Thus, the modification of victims' resistance strategy in response to violent persuasion by the offender was expected and is reported in the literature to be a valid, predictive relationship. The converse of this relationship was supported in this study: the victim's physical resistance, in contrast to passive or verbal resistance, increases the likelihood of a violent reaction by the offender. Although the data are cross-sectional and thus it is impossible to conclude with certainty, our findings seem to suggest that violent persuasion by the offender increases physical resistance by the victim, which further increases the use of violence by the offender.

The fact that humiliation had a significant association with violence in both models within the first study is suggestive of the importance of offender motivation for sexual assault. Knight and Prentky (1990) and Rosenberg and Knight (1988) emphasize elements of anger and sadism as pertinent components of underlying motivations to rape. According to Knight and Prentky (1990), offenders motivated by anger are undifferentiated in their expression of this emotion, and those motivated by sadistic tendencies use physically damaging assault techniques, confusing sexual and aggressive drives. It is not unrealistic to predict that offenders motivated by anger or sadism will resort to humiliation as a specific form of abuse, especially since humiliation has been found to be a form of abuse practiced by those diagnosed with sexual sadism (Fedoroff, 2008).

The final variable determined to be a significant addition to both the logistic regression model and the CHAID model in Study 1 was the use of a weapon by the offender, with violence more likely when a weapon was present. There are several possible reasons that an offender who utilizes a weapon would be more likely to become violent. First of all, an offender who brandishes a weapon potentially has a different range of coercive possibilities than does an offender who does not use a weapon. If the attacker is prepared with a weapon, he is likely willing to use it to either injure or threaten the victim if the need arises (Coker et al., 1998), which could very well be the case if the victim tries to resist his assault. An attacker without a weapon is likely not anticipating resistance and, although he could subdue a resistant victim without a weapon – using physical

force or verbal threats – he might also view fleeing the scene as the easiest option. Secondly, if an offender possesses a weapon during the commission of a sexual assault, use of that weapon could be viewed as a much easier solution than physical restraints or threats. If there is no weapon to use, the only options for the offender are to manually restrain or subdue the victim or flee. Thus, if the offender is in possession of a weapon and is motivated to complete the sexual assault, threats with, or use of, a weapon are more likely to ease the completion of the assault (Kleck & McElrath, 1991; Mieczkowski & Beauregard, 2010). Thirdly, victims may be more evenly matched to an attacker without a weapon, and are therefore possibly more likely to physically resist. Although male perpetrators are often more physically capable than their victims – who are primarily women or children – the victim has a better chance to escape or to make the offender doubt his chances of assault completion if the offender does not have a weapon. If the offender does possess a weapon, he will likely be more confident in his ability to overcome resistance due to this inherent imbalance of power. Lastly, the presence of a weapon may be indicative of an intention to commit expressive violence in excess of the instrumental violence necessary to complete the assault. This may coincide with angry or sadistic motivations and simply be a different (or additional) way, distinct from humiliation techniques, to fulfill such desires.

The findings in Study 1 that victim age and time spent with the victim were significant in the logistic regression model were not unexpected. Victims over the age of 16 were found to be more at risk of encountering violent reactions to their

resistance than were victims 12 years old and younger or victims between the ages of 13 and 15. This finding reiterates previous evidence about differences in violence and physical injuries sustained by adults and children within a sexual assault, with greater levels of violence and injury reported for adults (Scott & Beaman, 2004; Weaver et al., 2004). Furthermore, charges and convictions of aggravated sexual assault – which involve physical injury of the victim – are less likely in cases of sexual abuse of children than in cases of sexual assault of adults (MacMartin, 2004; Spohn, 1994). Thus, age of the victim has consistently been determined to be an important variable associated with offender violence and resultant victim injury, and its role was confirmed by the current analyses. This further supports the focus of Study 2 on the important distinction to be drawn between offenders against adults and offenders against children, especially with regards to level of offender violence.

The final significant factor determined to influence offender violence in the first study was the amount of time the offender spent with the victim during the assault. The likelihood of violence in response to victim resistance was greater when the sexual assailant spent more than 30 minutes with the victim. This connection could be due to a greater amount of time available in which to harm the victim. Alternately, the assailant may become frustrated and angry when the sexual assault takes longer than he had planned, leading to aggressive and violent behaviour (Mieczkowski & Beauregard, 2010) or a sadistically motivated offender may take additional time to inflict pain and injury on their victim, thus

increasing their likelihood to react in a similarly violent fashion to victim resistance.

4.2 Victim Characteristics and their Impact on Victim-Offender Dynamics

Characteristics of the victim – often beyond their control – may increase their likelihood of victimization, the type of offender they will attract, and the amount of violence that may occur during the assault itself. Additionally, the victim's actions during the commission of the crime affect the offender's behaviour, just as the offender's actions will affect the victim's (Block, 1981; Luckenbill, 1977; Tedeschi & Felson, 1994). This social interaction that takes place between victim and offender is one that must not be addressed lackadaisically, as its influence may change a situation of sexual assault into one of abject violence and physical danger.

This concept has been supported in the analyses in Study 2 simply by showing the substantial differences in situational factors and interactions when comparing offenses against adult victims to those against child victims. As can be seen in the three CHAID models (full sample, adult victims, child victims), there are very different components relevant to the prediction of how an offender will react to victim resistance. By directly addressing a single variable, the victim's age – albeit an extremely important variable – the overall picture of the victim resistance portion of the criminal event changes dramatically. In fact, as can be viewed in Figures 6 and 8, there is no single variable in common between

the two models, indicating a different type of crime dependent solely upon whether the victim is an adult or a child.

In general, the CHAID models in Study 2 support the notion that adult victims are more likely to encounter violence from the offender than child victims, as has been previously shown in the literature (Hunter, 2008; Scott & Beaman, 2004; Spohn, 1994; Weaver et al. 2004). Delving deeper, however, the models also suggest a different offense planning and stratagem, dependent upon the type of victim. In essence, it appears that when an offender chooses a child victim, there is a higher degree of preparation that occurs before the crime takes place. In contrast, an offense against an adult victim appears to be somewhat more impulsive and a reaction to the situation. The main support for this supposition lies in the different “first split” variables within the two classification trees. As evident in Figures 6 and 8, the first splitting variable when the victim is an adult is the type of resistance the victim employs, whereas the first splitting variable when the victim is a child is the strategy used by the offender to commit the crime. Thus, at the outset of a sexual crime against a child, an offender is aware of the level of violence he is willing to resort to if the victim resists; he is simply continuing the violence that began the assault and using only the amount of force necessary to complete the assault (instrumental violence). This is not the case, however, when the victim is an adult.

These results suggest that, with an adult victim, an offender is more likely to resort to violence according to the resistance level of the victim. This is a very important finding, especially because previous studies have found the resistance

of the victim to have no effect on the physical forcefulness of the offender (Ullman, 1998, 2007b; Ullman & Knight, 1995). Part of the reason for this discrepancy may lie in the different units of analysis between previous studies and the current research. Most studies analyzing the phenomenon of victim resistance gather information about the criminal event from the victim, rather than the offender (Brecklin & Ullman, 2005; Ullman, 1998, 1999; Ullman & Knight, 1991, 1992, 1993, 1995). Although both aspects are certainly important to consider, different renditions of the offense would most assuredly be depicted by victims compared to offenders. Not only would the individual interpretations of the events differ, but the different sampling strategy would also be expected to affect the types of offenses portrayed within each sample. Samples of victims would include offenses that perhaps were not reported, did not lead to charges, or did not result in conviction and/or incarceration. Alternatively, sampling incarcerated offenders draws from a different pool of subjects. Since all criminal events included in the analysis of convicted and imprisoned sex offenders obviously did proceed through all steps necessary to result in incarceration, it can be expected that the severity of these offenses are – aggregately, at least – greater than within victim-reported offenses. Thus, it is possible that the factors determined to affect the level of offender violence in the current analyses (such as level of victim resistance) are simply more pertinent to more severe offenses.

Perhaps more notably, many previous studies have consistently suffered from an inability to distinguish a temporal sequence in the event. If, for example, the offender begins with a violent offense strategy, and the victim reacts

physically, this is a much different scenario than if an offender reacts violently to a victim's physical resistance. Such a distinction has been made in the current study, as the dependent variable was specifically designed to represent, as the name states, the offender's reaction to victim resistance. This is distinct from the offender's attack strategy, which has been encompassed within the separate variable, strategy to commit the crime. Therefore, as the present analysis has been able to control for the temporal sequence of events within the criminal event, it can be stated with confidence that the level of resistance employed by an adult victim does in fact strongly affect the level of coercion that the offender undertakes in response to that resistance.

Part of the reason for such a finding may, at least in some cases, be related to what Tedeschi and Felson refer to as "token resistance" (1994, p. 321). Although resistance is one of the most effective tools in a victim's struggle against unwanted sexual advances, it is a natural occurrence within a variety of everyday sexual interactions (Tedeschi & Felson, 1994). As Tedeschi and Felson discuss, in a conventional heterosexual encounter, men typically initiate the various levels of sexual activity, proceeding through each successive level until they encounter resistance from their female partner. Additionally, many women admit to sometimes utilizing resistance even when they actually want the sexual activity to continue; often, such token resistance is described as a "playing hard to get" strategy meant to increase the woman's power and control over the situation. In accordance with this social expectation, men anticipate resistance from their partners and experience little to no moral dilemmas in attempting to

overcome the resistance or negotiate the woman into compliance. Thus, within a situation that an offender perceives as one of token resistance – despite the fact that the victim may be an unwilling stranger or a child – coercion may be viewed as a natural, and even expected, course of action. However, the degree and type of coercion employed by the offender in response to resistance can vary between similar situations, and this is suggested to be dependent upon situational variables and the actions and behaviours of victim and offender.

The idea of anger contributing to coercion in the face of resistance is supported in the analyses in the second study – as in the first study – by the importance of humiliation as a precipitating factor. If an offender resorts to humiliation, it supports the notion that the offender is motivated to hurt the victim more than is necessary to complete the assault (noninstrumental, expressive violence). Coercion alone serves a purpose to the offender, which is usually to subdue the victim so that the assault can be completed – what Tedeschi and Felson refer to as a “tactical use of force” (1994, p. 327). However, humiliation serves a completely different purpose with a sole intent on humbling and hurting the victim in a different capacity than simple physical injury. Because humiliation increases the likelihood of physical coercion for adult victims, it can be hypothesized that the offender is angry – possibly at the victim who resisted – or possibly influenced by sadistic fantasies or motivations, and subsequently attempts to harm the victim as much as possible, in as many ways as possible. Tedeschi and Felson (1994) support this view, hypothesizing that the presence of

humiliation suggests a feeling of grievance toward the victim and creates a separate value for the offender in deliberate harming of the victim.

There appears to be a completely different social environment surrounding a sexual assault of a child. According to the present findings, such assaults seem to be premeditated to a greater degree in an attempt to circumvent the use of expressive violence to complete the assault. Offenders against children are prepared, with regard to the surrounding set-up and physical environment, and are aware of the amount of force they are likely and willing to use prior to the commencement of the assault (thus, the importance of the strategy to commit the crime). These interpretations are congruent with findings showing that planning is an important step, either implicitly or explicitly, in the offense process of child molesters (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.

4.3 Support for the Social Interactionist Perspective

The factors determined to be important to the assaultive interchange are congruent with the social interactionist perspective, particularly as it is discussed by Luckenbill (1982). Although Luckenbill posits that certain factors are related to an increase in victim resistance, an offender’s reaction to resistance may also increase due to similar factors. Features of the abusive scenario that increase

victim desperation, leading to increased resistance, would also arguably increase the offender's belief in his own capabilities. Thus, his increased confidence could make the offender less afraid of consequences and more likely to believe that he can overcome resistance with violence.

The significance of both the offender attack strategy and offender weapon use relate to this interpretation of Luckenbill's (1982) role-related conditions. Both crime elements would potentially increase threat severity as well as its believability and the offender's perceived capacity to carry out the threat. An increased level of offender violence at the outset of the attack would arguably increase the victim's fear of threats because they have already been privy to a level of violence that the offender is capable and willing to utilize. In most cases, the victim's fear would be evident to the offender, thus increasing his satisfaction with his performance or at least his belief in his own power and domination. Similarly, offender weapon use could easily demonstrate an obvious coercive advantage to the offender who wields it, giving credence to his threat, increasing victim resistance and fear.

Also in support of Luckenbill's (1982) role-related conditions are the findings that more time spent with the victim, victim humiliation, and increased victim age are all related to an increase in offender violence. As time passes, threats may become more believable and the victim may begin to lose hope, resulting in desperation and a decrease in their believed capacity to oppose. Whether transmitted through victim actions or his own interpretations, the offender may also recognize that desperation grows and victim capacity

decreases as time under his control builds. In the same way, humiliation increases the power – whether real or simply perceived – that the offender holds over the victim, which also acts to increase the offender’s perceived capability to overcome any resistance with physical violence. Younger victims may be viewed by the offender as possessing less oppositional capabilities; furthermore, since threats from the victim (delivered via the use of resistance) are perceived as less severe and believable when the victim is young, the offender’s reaction would be correspondingly less coercive.

The finding that the type of victim resistance has such a momentous impact on how the offender reacts – particularly in the case of offenses against adults – demonstrates the inherent link between victim behaviour and subsequent offender behaviour. Not only does this support the social interactionist perspective, in that the behaviour of one actor impacts the behaviour of others within the exchange (Block, 1981; Goffman, 1967; Luckenbill, 1977; Tedeschi & Felson, 1994), but also highlights the importance of Luckenbill’s (1977) working agreement that is developed between victim and offender. When a victim physically resists her attacker, although more than justified, the offender perceives this physical resistance as entrance into an agreement in which violence is an acceptable tool that may be utilized to achieve his goals. Thus, Luckenbill’s (1977) theoretical reasoning predicted increased physical coercion in response to physical resistance.

It appears that the most dangerous situation for a sexual assault victim in general is the combination of the offender’s use of a violent persuasion strategy,

the offender using humiliation tactics as a form of abuse during the assault, and physical resistance by the victim; the presence of a weapon is an additional aggravating factor under particular circumstances. Furthermore, victims over the age of 16 are at greater risk of a violent reaction from the offender as are victims of an assault that lasts longer than 30 minutes. Delving deeper into the phenomenon of coercion in response to resistance, there also appear to be different situational factors that increase offender violence dependent upon whether the victim is an adult or a child. Adults are more at risk when they resist more forcefully, when the offender has utilized humiliation as an additional offending technique, and when the offense is of longer duration. Alternatively, children are most at risk of violence in response to resistance when the offender begins with a violently persuasive strategy and when there is no alcohol or drug use by the offender prior to the commission of the assault. Female victims are also at greater risk under particular circumstances. The logistic regression and CHAID models are all compelling endorsements of the importance of the individual significant variables, as well as the interactions that take place between variables, within the criminal event.

CHAPTER 5: CONCLUSION

Block (1981) states that the most important function of criminology research lies in the gathering of information necessary to educate potential victims in how best to prevent victimization. Although the criminal justice system and law enforcement work to protect victims and prevent crime, prevention is ultimately the responsibility of the victim within each individual scenario in which crime is a possibility.

In line with Block's reasoning, the present study was initially aimed at discovering what situations led to increased offender violence to inform victims when they should resist and when, with a focus on harm reduction, it is in their best interests to reduce their level of resistance. The information discovered herein could have potential utility in the context of programming and policy initiatives in helping to educate potential sexual assault victims in harm reduction and situational prevention strategies. Specifically, it appears that, if an offender is using violent means to attempt to persuade a victim, it is in the victim's best interests to verbally resist (such as calling for help and ensuring the offender hears an undeniable and unambiguous "No"), on the off-chance that this is enough to stop the assault or get help without inducing greater physical coercion, or attempt to flee as soon as possible. However, perhaps more research should first be conducted on the psychological effects of not fully resisting a sexual assault, as surrendering to an assailant could possibly take a greater toll on the

victim than physical injury (Galliano et al., 1993; Rozee & Koss, 2001).

Regardless, as the overall results unfolded, it began to become increasingly clear that, at this point, the issue is far too complex and unexplored to make any blanket statements that apply to all potential victims. The current study examined only one small portion of the entire event that results in a completed sexual assault: what happens when a victim resists? Then, when only focusing on one major variable, that of victim age, the results demonstrated very different factors contributing to offender violence at this stage. Thus, although more information has been unearthed through the present analyses, the phenomenon remains relatively unclear.

The social interactionist perspective emphasizes the true importance of behaviours of the various players within a coercive interchange (Block, 1981; Goffman, 1967; Luckenbill, 1977; Tedeschi & Felson, 1994). As evidenced by the findings within the current study, and supported by Luckenbill (1982), offender behaviour has the potential to drastically alter victim behaviour, especially the level of victim resistance. However, the current analyses have shown the reverse to be true as well: victim behaviour also considerably affects offender behaviour. Behaviour appears to be cyclical in the sense that actors continually affect one another: offender assaultive behaviour leads to victim resistance, which, depending upon the presence or degree of certain factors, may then lead to offender coercion in response to that resistance.

It can be argued that Block (1981) broke new ground in the area of victim-offender dynamics by emphasizing the importance of victim self-protective

actions and the necessity of further research development so that victims can be better informed. However, this viewpoint with a focus on victim prevention dismisses the other major participant within the criminal event: the offender. The victim may very well take certain steps to protect herself and, therefore, needs to be informed as to the best strategies available to most effectively do so, but there ought to be more onus on the offender. Accordingly, the current findings provide information that may be useful in the identification of further details in the offense process, which could be used to distinguish intervention points during the offense chain for offender therapy, specifically the implementation of harm reduction programs for offenders. Potentially, programs based on the relapse prevention model (Marlatt & Gordon, 1980; Pithers, 1990; Pithers et al., 1983) could utilize the information gathered to elucidate further the offense chains in order to better inform offenders when they are more likely to become violent and physically coercive. Effectively, this model would help offenders recognize triggers or high risk situations *during an offense* so that they may avoid further escalation. Unfortunately, criminal activity is an inevitability; the current idea allows for a model emphasizing harm reduction rather than crime prevention, with the hopes of combination with other, preventative methods.

The idea of harm reduction has been put forward previously by Laws (1996), who concedes the notion that all humans, including sex offenders, are imperfect and to expect perfection from those learning and employing relapse prevention strategies is illogical. It is unreasonable to assume sex offenders are able to eliminate their offending behaviour using relapse prevention strategies

when such a standard is not expected of those with substance addictions using the same techniques (Laws, 1996). Lapses and relapses are expected as part of the treatment of a substance addiction; however, a lapse or relapse by a sex offender only increases societal beliefs in the inefficacy of sex offender treatment and feeds the assumption that sex offenders cannot change. Laws further emphasizes that the focus of treatment (or, rather, sex offender *management*, as he suggests is a more appropriate phrasing) should be on the reduction of the frequency and intensity of relapses if they cannot be eliminated. Of course, the extermination of sexually abusive behaviours is the overarching goal of any sex offender treatment or management program, but while attempting to achieve this goal, harm reduction should be the focus in the interim.

The current research is not without limitations. Although the emphasis of the studies was clearly on event characteristics, the social interactionist perspective suggests the importance of offender characteristics as well (e.g., offending history, psychiatric diagnoses, deviant arousal). For instance, it can be hypothesized that previous violence and offence history are likely to affect the level of violence in subsequent offences, as a result of the development of a script for victim resistance (Beauregard et al., 2007). Future studies should attempt to integrate event and offender characteristics in the prediction of coercion 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 sexual assault data, more victim variables could have been examined 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 offence, 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.

Furthermore, in the current studies, only victims who resisted their attackers were considered within the present sample. Despite the fact that this information is valuable on its own, the next step would be to examine the scenarios in which the absence of victim resistance leads to violence. The two could then be amalgamated to better elucidate the phenomenon of the effect of victim resistance.

The sample of events that were examined throughout the analyses was limited to the first victim in the cases that involved multiple victims offended against by a single offender. This allowed for the control of discrepancies that may have arisen due to previous offending experience as well as provide the assurance that overlap in offending patterns would not arise due to multiple examinations of the same individual; however, this nonetheless presents as a further limitation. Future studies should attempt to integrate prior offending experience and the number of sexual assault victims into a situational analysis of violence to determine possible effects on how an offender may react to victim resistance.

Methodologically, a possible limitation of the CHAID analyses arises due to the “sample specific” nature of this statistical technique. In some instances, few cases with slightly different characteristics on key variables can dramatically affect the picture that emerges from the analysis. If CHAID analyses were to be performed on a different sample, different findings might be obtained. Thus, replication is necessary to strengthen the applicability of the current findings.

Additionally, further studies are needed to evaluate the criminal event so that the entire process can be better understood with an aim of prevention and situational intervention. This endeavor begins with the elucidation of the relevant factors at each stage in the process; the current study is a first step in this direction. Only after uncovering the complex offender-victim interactions that lead to varying levels of offender violence and coercion throughout the offending sequence will researchers be able to begin to advise potential victims as to the most protective course of action and policy-makers as to the most useful relapse prevention models. Educating victims or offenders prematurely could lead to a greater proportion of sexual assaults resulting in victim injury, hospitalization, and death (Mieczkowski & Beauregard, 2010). To prevent such tragic consequences, researchers must strive to understand all of the complex relationships that increase an offender’s propensity for violence within the context of a sexual assault.

We agree with Ullman (2007b) that it is not enough to simply advise women to avoid “risky situations”. This simply restricts the freedoms of those who do not deserve to be so punished and encourages potential victims to live in fear.

A healthier and more just approach lies in providing potential targets with the knowledge necessary to recognize a dangerous situation and know how best to react. This, in combination with information pertaining to harm reduction made available to offenders within a treatment setting, could get society one step closer to understanding and reducing violence within sexual assaults.

APPENDICES

Appendix A: Bivariate Correlation Matrix.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Victim gender	1.00													
2. Victim age	-.300**	1.00												
3. Victim poor	.086	-.023	1.00											
4. Alcohol/drugs	-.132**	.325**	.018	1.00										
5. Pornography	.148**	-.084	.079	-.003	1.00									
6. Premeditation	.100*	.026	-.043	-.127*	.129*	1.00								
7. Time of crime	-.155**	.410**	.011	.354**	-.108*	-.142**	1.00							
8. Intimacy	.000	-.422**	.097*	-.134**	.113*	-.049	-.291**	1.00						
9. Resistance	-.214**	.484**	-.007	.234**	-.198**	-.087	.329**	-.290**	1.00					
10. Strategies	-.164**	.569**	.033	.256**	-.013	.058	.250**	-.337**	.429**	1.00				
11. Weapon use	-.108*	.405**	-.108*	.119*	-.050	.074	.167**	-.235**	.254**	.443**	1.00			
12. Nature	-.365**	.085	-.003	.054	-.095*	-.020	.052	.132**	.051	.046	.007	1.00		
13. Humiliation	-.158**	.329**	.120*	.167**	-.043	.099*	.007	-.010	.187**	.329**	.276**	.146**	1.00	
14. Time spent	-.096*	.359**	.044	.179**	-.058	.124**	.155**	-.177**	.241**	.388**	.369**	.175**	.314**	1.00
DV: Offender reaction (Study 1)	-.181**	.552**	.000	.244**	-.123*	.028	.263**	-.268**	.489**	.640**	.445**	.104*	.442**	.417**
DV: Offender reaction (Study 2)	-.151**	.490**	.045	.221**	-.156**	-.001	.241**	-.247**	.462**	.553**	.354**	.100*	.418**	.388**

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

* $p < .05$. ** $p < .01$

Appendix B: Preliminary Sequential Logistic Regression Model (Study 1).

Predictor	Block 1					Block 2					Block 3				
	B	SE	Sig	OR	95% CI	B	SE	Sig	OR	95% CI	B	SE	Sig	OR	95% CI
Victim characteristics															
Victim gender	-.08	.33	.81	.92	.48-1.78	.14	.39	.71	1.16	.54-2.46	.78	.54	.15	2.17	.76-6.22
Victim age (≥ 16)			.00					.00					.14		
≤ 12 years	-2.73	.275	.00	.06	.04-.11	-2.13	.35	.00	.12	.06-.24	-.83	.47	.08	.44	.17-1.10
13 – 15 years	-2.17	.34	.00	.11	.06-.22	-1.81	.37	.00	.16	.08-.34	-.72	.48	.13	.49	.19-1.24
Victim background	.15	.25	.54	1.16	.71-1.91	.25	.28	.78	1.28	.74-2.20	-.09	.35	.79	.91	.46-1.82
Situational variables															
Alcohol/drugs						.39	.28	.16	1.48	.86-2.57	.01	.37	.97	1.01	.49-2.08
Pornography						-.25	.42	.55	.78	.35-1.77	-.36	.52	.50	.70	.25-1.95
Premeditation						.50	.30	.10	1.65	.91-2.97	.23	.39	.55	1.26	.59-2.71
Time of crime						.01	.30	.98	1.01	.56-1.83	.42	.40	.29	1.53	.70-3.39
Intimacy (Romantic)								.12					.14		
Stranger						.23	.41	.57	1.26	.57-2.79	-.17	.53	.74	.84	.30-2.37
Known/friendly						-.50	.34	.14	.61	.31-1.19	-.82	.47	.08	.44	.18-1.10
Type resist (Physical)								.00					.00		
Low level/passive						-1.74	.35	.00	.18	.09-.35	-1.42	.45	.00	.24	.10-.59
Verbal						-1.88	.31	.00	.15	.08-.28	-1.75	.41	.00	.17	.08-.39
Crime variables															
Strategies (Violent)													.00		
No strategy													-.237	.49	.00
Nonviolent													-1.49	.45	.00
Weapon use													.91	.42	.03
Nature of sex acts													.39	.40	.33
Humiliation													1.98	.45	.00
Time with victim													.85	.38	.02
													2.35		1.12-4.94
AUC			.801					.868					.936		
Cox & Snell R ²			.286					.376					.516		
Hosmer & Lemeshow Sig			.317					.064					.153		

Note. Variable names were shortened due to space constraints; full variable names are available in-text; B = beta weights; SE = standard error; Sig = significance; OR = odds ratio; CI = confidence interval; AUC = area under the curve.

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