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By

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B.S., Southern Illinois University, 2012

A Thesis
Submitted in Partial Fulfillment of the Requirements for the
Master of Arts degree

Department of Criminology and Criminal Justice
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TITLE: CHANGES IN ANTISOCIAL ATTITUDES AND RECIDIVIST OUTCOMES

MAJOR PROFESSOR: Dr. Daryl Kroner

This purpose of this study is to examine whether changes in offender antisocial attitudes predict recidivism, violent reoffense, and severity of reoffending among completers of the community based, Counter-Point treatment program. While offender antisocial attitudes changed following treatment completion, these changes did not significantly predict violent recidivism and general recidivism. However, violent offenders, upon entering the program, were more likely to recidivate violently, and a decrease in antisocial attitudes following treatment completion increased the severity of reoffending. These findings highlight that change takes time and treatment dosage may serve as an important component of maintaining attitudinal change in treatment and upon reentry into the community.

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CHAPTER 1

INTRODUCTION

The "nothing works" statement made by Martinson's report in the 1970's gave a dismal outlook on the effectiveness of offender rehabilitation (Bonta & Andrews, 2007). In response, scholars engaged in rigorous study to ascertain whether this statement was valid. Conversely, they found that treatment programs, specifically ones that used cognitive-behavioral principles, were highly effective in reducing recidivism, a statement still held true today (Landenberger & Lipsey, 2005).

Specific to these successful interventions is their integration of the Risk, Need, Responsivity (RNR) Model whose importance has been noted by scholars in reducing recidivism (Andrews, Bonta, & Wormith, 2011) in that it targets not only offender risk factors, but also addresses criminogenic needs (i.e. antisocial cognitions) that lead to criminal behavior (Andrews et al., 2011). Implementation of this model has empirically demonstrated effectiveness in treating criminogenic needs and reducing recidivism among violent and nonviolent offenders (Berman, 2005; Clarke et al., 2010; Cortoni, Nunes, & Latendresse, 2006; Hanson et al., 2009; Polaschek, 2010; Polascheck & Dixon, 2001; Polaschek, Wilson, Townsend, & Daly, 2005; Ronan, Gerhart, Bannister, & Udell, 2010; Wong, Gordon, Gu, Lewis, & Olver, 2012).

Although the RNR treatment model is effective, research needs to distinguish the causal mechanisms within interventions incorporating this model that create the distinct change among offenders (Landenberger & Lipsey, 2005). This study aims to fill the gap in the literature by assessing whether the targeting of antisocial attitudes in RNR based treatment programs reduces criminal thinking patterns and decreases the likelihood of recidivism and violent reoffending as well as the severity of reoffense (i.e. violent or nonviolent). This is of notable importance since

violent offending contributes to more financial burden in incarceration costs, increases in security, and services for the victims of their crime. If offenders are not treated successfully, they are more likely to reoffend and reduce the public's faith in the criminal justice system (Serin, Gobeil, & Preston, 2009).

The purpose of this study is to examine whether changing the antisocial attitudes of offenders (i.e. addressing needs) in a Risk, Needs, Responsivity (RNR) based treatment program is one of the main causal mechanisms for a decrease in recidivism overall as well as violent reoffending and severity of reoffending. Using a subsample of violent and nonviolent offenders who have completed an RNR based (i.e. Counter-Point) treatment program, measures of criminal antisocial attitudes (i.e. Criminal Sentiments Scale-Modified; Pride in Delinquency Scale) will be assessed pre- and post-treatment in determining whether this component, addressed in therapy, is associated with changes in criminal thinking patterns pre- to post-treatment, affects the likelihood of recidivism, violent reoffending, and the severity of reoffense when controlling for race and initial offense type.

CHAPTER 2

LITERATURE REVIEW

Psychological Attitude Literature

Attitudes Generally

When trying to understand criminal thinking, it is critical to examine the foundations of

how an attitude is defined. Our lives are driven by our choices, which hinge upon our likes or

dislikes (Johnson & Boynton, 2010). The term attitude is used to identify these favorable or

unfavorable preferences for certain people, objects, or things. Although definitions may vary

slightly among social psychologists, they all agree that an attitude contains an evaluative

component (Ajzen, 2005; Bem, 1970; Eagly & Chaiken, 1993; Edwards, 1957; Fishbein &

Ajzen, 1975; Hill, 1981; Osgood, Suci, & Tannenbaum, 1957; Oskamp, 1991) and the notion

that attitudes can significantly influence behavior (Ajzen, 1991; Ajzen & Fishbein, 1980; Fazio,

1986).

Among the most notable definitions, Allport (1935) described an attitude as having a

"directive or dynamic influence upon the individual's response to all objects and situations with

which it is related" (p. 810). Similarly, other scholars have stated that an attitude is a consistent

response to social objects (Campbell, 1950), is predictable (Green, 1954), and occurs in the

individual in reaction to a stimulus, resulting in subsequent overt responses (Doob, 1947). Put

simply, an attitude is an evaluative construct directed towards an object that results in manifest

behaviors.

We cannot physically examine an attitude, nor do we have direct access to what a person

is feeling or thinking (Ajzen, 2005). Yet, researchers (Rosenberg & Hovland, 1960) have found a

way of inferring this latent construct by measuring cognitive, affective, and conative responses

within an individual. Cognitive responses reflect beliefs and perceptions about an attitude object while affective reactions entail the feelings held toward an attitude object and are physiological in nature. The overt behaviors exhibited in reaction to the attitude object are the conative responses and are expressions of behavioral intent. In summary, in order to understand an attitude, it may be inferred through the thoughts, feelings, or behaviors exhibited by an individual towards the attitude object (Ajzen, 2005; Rosenberg & Hovland, 1960).

Attitude-Behavior Relationship

Whether attitudes directly affect behaviors has been a continuing debate, as some scholars believe attitudes to directly affect dynamic behaviors, whereas others believe this affect to be only minimal (Allport, 1935; Johnson & Boynton, 2010: LaPiere, 1934). Until the 1960s, it was widely assumed that attitudes directly affected behaviors (Fazio, 1986). This view was challenged by researchers who upon further investigation, scrutinized this relationship stating that attitudes do not lead to subsequent behaviors and that this concept should be disregarded (Wicker, 1971).

This profound statement sparked interest and further investigative research that indicated this declaration was made erroneously (Fazio, 1986). Later studies found the attitude-behavior relationship to be more correlated than previously thought (Fazio & Zanna, 1981; Schuman & Johnson, 1976) and inspired a new direction in which this relationship could be better studied and understood (Fazio, 1986).

Rather than asking *if* attitudes relate to behaviors, research should focus on *when* do attitudes predict further actions (Fazio, 1986; Fazio & Zanna, 1981). Scholars have pursued this question in subsequent studies, but have differing views in relation to whether the attitude-

behavior relationship is a controlled (conscious) or automatic (unconscious) process (Ajzen, 1991; Ajzen & Fishbein, 1980; Fazio, 1986).

Fazio's Model of the Attitude-to-Behavior Process

In beginning to understand the relationship between attitudes and behaviors, Fazio (1986) assumed that behavior was largely a result of an individual's immediate perceptions of his or her environment. Since the human environment is ambiguous and open to interpretation, it is the individual's definition of the environment or attitude object (e.g., person, place, thing, idea) that ultimately determines the nature and direction of his or her behavior in any given situation (Fazio, 1986).

As evidenced in many empirical studies, it is the immediate perceptions of the target person (Snyder & Swann, 1978; Snyder, Tanke, & Berscheid, 1977; Word, Zanna, & Cooper, 1974) or context (Fazio, 1986) in which they are encountered that encompasses an individual's definition of the event. This selective interpretation consequently serves as a "prompt for attitudinally consistent behavior" (Fazio, 1986, p. 210). For example, if an individual holds a negative attitude towards an attitude object, this adverse cognition will affect how they behave when encountering this target. When an interaction occurs, the individual will be affected by this attitude and everything the target does or encompasses will be perceived in a negative manner leading the individual to react in a possibly hostile or adverse way. Research has supported this relationship of attitudes and negative behaviors when examining student academic honesty (Bolin, 2004) and employee deviance (Bolin & Heatherly, 2001; Kulas, McInnerney, & Frautschy, 2007). Put simply:

Through a process of selective perception, the attitude colors the individual's current perceptions of the target person [or object]. These immediate perceptions, filtered as they

are through the attitude, then influence the individual's [positive or negative] behavior

response…The end result is behavior consistent with the attitude that initiated and guided

the entire process (Fazio, 1986, p. 210)

While this explanation helps to understand the attitude-behavior relationship, research indicates

that this modest correlation is not always constant, indicating that other mechanisms exist that

help to mediate this process (Fazio, 1986).

One such factor that Fazio (1986) suggested is the effect of subjective norms. When an

individual forms his or her definition of a target, this attitudinally defined perception may also be

influenced by knowledge of what is socially acceptable behavior. Thus, an individual's behavior

may be influenced by how they think others would want them to behave under the same

circumstances. While subjective norms account for some mediating differences in the attitude-

behavior relationship, not all attitude objects have normative standards. As such, another

mechanism proposed by Fazio (1986) to mediate attitudinal-behavioral consistency is the role of

attitude accessibility. If an attitude cannot be accessed quickly, it will not be able to affect the

perception of the individual and influence congruent behaviors in the presence of an attitude

object (Fazio, 1986; Snyder & Swann, 1976).

When an attitude is easily accessible, it will influence how one behaves towards an

attitude object, but what determines whether it will be available upon retrieval? To answer this

question, Fazio (1986) recognized that the strength of the held attitude determines whether it will

be accessible. The strength of an attitude is determined by how *often* the attitude is applied to a

given situation (Higgins, Rholes, & Jones, 1977) and if this association is experienced *directly*

rather than indirectly (Zanna, Olson, & Fazio, 1981). Hence, attitudes that are repeatedly paired

(primed) with behaviors in direct settings will be stronger and will have a greater likelihood of being automatically activated when the attitude object is encountered again (Fazio, 1986).

In summary, Fazio's (1986) model of the attitude-behavior process posits that attitudes are responsible for guiding our immediate perceptions of our environment. This theory serves as a basis for understanding not only good behaviors, but demonstrates how negative attitudes can lead to overt behaviors. As the attitude-behavior relationship is not consistent, Fazio (1986) has identified meditating factors (e.g., subjective norms, accessibility) that determine whether a held attitude will result in consequent behaviors. Given that attitudes will only have an effect if they are cognitively accessible, Fazio (1986) suggested that accessibility is determined by the strength of the held attitude. He concluded that if an attitude has considerable strength, it will be automatically accessed and attributed to an individual's behavior in the presence of an attitude object (Fazio, 1986).

Azjen and Fishbein's Theory of Reasoned Action

While Fazio's (1986) model assumes that attitudes are automatically activated and subsequently affect behaviors towards the attitude object absent conscious thought, Azjen and Fishbein (1980) hold a contrasting view. Their theory is grounded in the idea that humans are rational thinkers and make use of all available information. Advocating this approach, they do not subscribe to the view that human behavior is driven by unconscious, intrinsic needs, but rather consider the consequences of their actions before deciding whether to act upon their thoughts. For this reason, their approach is referred to as the "theory of reasoned action."

Since it is assumed that behaviors are under volitional control, Azjen and Fishbein (1980) hold that the determinant of human action is an individual's *intention* to act (or not act) in a given context. Simply, the best predictor of what people do is what they intend to do. However,

what predicts behavioral intentions? These scholars postulate that behavioral intentions are influenced by two basic determinants (i.e. attitudes toward the behavior, subjective norms) that regulate subsequent actions (Azjen & Fishbein, 1980).

When faced with a behavioral judgment, an individual must decide whether the behavior in question is good or bad (Azjen & Fishbein, 1980). One's *attitude toward the behavior* then determines their positive or negative evaluation of the behavior and whether they will act upon it. Another mediator of intention, similar to that of Fazio (1986), is the *subjective norm*. As aforementioned, this term refers to how an individual perceives his or her behavior to fit the standards or desires of others important to them. For example, if child is told by his parent that pursuing a college degree would be ideal for his future, this child may be persuaded to pursue academia further to meet his parent's expectations. Also central to their theory of reasoned action, is the assumption that *behavioral beliefs* underlie attitudes (Azjen & Fishbein, 1980). If a person believes that engaging in a behavior will lead to undesirable outcomes, they will hold an unfavorable attitude and if they believe the behavior will have positive outcomes, they will hold a favorable attitude (Azjen & Fishbein, 1980).

As previously mentioned, *subjective norms* (i.e. social pressures) are predictors of behavioral intentions (Azjen & Fishbein, 1980). Similarly, they too are a function of underlying beliefs that guide subsequent behavior. While one may be aware of how others would like for them to act (subjective norm), their motivation to comply with these referents is influenced by their *normative beliefs*. Put simply, these beliefs refer to how much one *cares* about what other people think which is largely influenced by the value one places in the expectations of important people (e.g. teachers, friends, parents) in their life. To illustrate, if a teacher suggested to a student that they should pursue a graduate degree, the teacher's advice may be acted upon if the

student holds the teacher in a high regard. On the other hand, if the student does not think highly of his teacher, he may not pursue graduate study (Azjen & Fishbein, 1980).

To summarize, Azjen and Fishbein's (1980) theory of reasoned action assumes that the best predictor of behavior is behavioral intentions. When deciding whether to engage in a certain action, an individual engages in a deliberative reasoning process that is influenced by their held attitudes and subjective norms. These two meditating factors consequently are affected by the person's behavioral and normative beliefs that ultimately lead to the consciously chosen behavioral performance (Azjen & Fishbein, 1980).

Azjen and Fishbein's Theory of Planned Behavior

As stated in their original theory of reasoned action (Azjen & Fishbein, 1980), the best predictors of behavior are behavioral *intentions*. Resulting from underlying attitudes and beliefs, the theory assumes that "the stronger the intention to engage in a behavior…the more likely should be its performance" (Ajzen, 1991, p. 181).

However, the behavioral intention can only be expressed if it is under volitional control (e.g., money, skills, time, support). Thus, in extension of their original theory, Azjen (1991) added the additional factor of *perceived behavioral control* which identifies the need that the individual must recognize that they have control over their intentions and actions in order to perform the behavior of interest (Ajzen, 1991). Thus, "their sense of confidence in their ability to perform" (Ajzen, 1991, p. 184) will determine their choice of action (Bandura, Adams, & Beyer, 1977; Bandura, Adams, Hardy, & Howells, 1980). So in conjunction with their earlier theory, Azjen (1991) holds that behavioral achievement is best predicted by behavioral intentions and perceived behavioral control.

Cognitive Dissonance

Empirical research and theory has identified that attitudes subsequently lead to behaviors. However, what happens when a held attitude and a desired behavior mismatch? Leon Festinger (1957) recognized this issue is his theory of cognitive dissonance. He posited that when a mismatch occurs, an individual will either experience consonant or dissonant thoughts. Ideas or thoughts that highlight that your behavior does not match your held attitudes create a negative affective state. As this dissonance increases in magnitude, so too does the pressure to reduce this feeling (Harmon-Jones & Mills, 1999). To make this negative feeling go away, one can either change their behavior or their attitude.

When deciding to change their attitude, a person can either remove or decrease the importance of the dissonant thought or they can create new consonant cognitions (Harmon-Jones & Mills, 1999). A consonant cognition helps to alleviate negative affect by providing a justification for the mismatch in behavior. It helps to explain away behavior so one will no longer feel dissonance (Harmon-Jones & Mills, 1999).

Summary

To summarize, this section has highlighted how attitudes significantly affect our behaviors by affecting our perceptions and intentions. While some scholars suggest that this association is automatic (Fazio, 1986), others have posited that it is a controlled, deliberative reasoning process (Ajzen, 1991; Ajzen & Fishbein, 1980). These academics have also demonstrated how this relationship is mediated by many factors (e.g., subjective norms, accessibility, behavioral beliefs, normative beliefs, perceived behavioral control) that influence the overall attitude and subsequent positive or negative behaviors (Ajzen, 1991; Ajzen & Fishbein, 1980; Bolin & Heatherly, 2001; Fazio, 1986; Kulas et al., 2007).

It should be noted that the terms mediator and moderator are used interchangeably throughout social psychological literature (Baron & Kenny, 1986). While these terms are similar, they have distinct properties. A moderator (i.e. effect modifier) refers to when a variable will predict an outcome with estimations based on strength or direction (Kraemer, Kiernan, Essex, & Kupher, 2008; Kraemer, Stice, Kazdin, Offord, & Kupfer, 2001). Conversely, a mediator distinguishes how or why a variable accounts for a relationship between a predictor and an outcome. Throughout attitude literature, the term mediator is commonly used (Azjen & Fishbein, 1980; Fazio, 1986). Thus, for the purposes of this paper, the term mediator will be applied when referring to the attitude-behavior relationship. This is fitting given that attitudes are referred to as possible mechanisms in treatment outcomes (Kraemer, Wilson, Fairburn, MPhil, & Agras, 2002).

It appears that both controlled and automatic process can adequately explain the attitude-behavior relationship (Fazio, 1986). Given that these theories explain both positive and negative behaviors, it can be presumed that criminal overt behaviors can be explained under these contexts; specifically, through the Ajzen and Fishbein's (1991;1980) theory of reasoned action and planned behavior. When conflict between held attitudes and desired behaviors create cognitive dissonance, a person can either choose to change their attitude or find explanations to neutralize or justify it (consonant thoughts). It appears then that some degree of deliberative, conscious reasoning is occurring within offenders to create these explanations in an effort to continue with desired criminal behavior. This idea is further supported by Yochelson and Samenow (1976) who posited that cognitive processes occur before, during, and after the commission of a crime which they coined the criminal thought process. As criminal behavior is seen as an act of free choice, one must develop a sense of responsibility in changing these overt

behaviors (Walters, 1990). As empirical literature suggests, attitudes are malleable and can change (Fazio, 1986). This idea is central to the Risk, Need, Responsivity (RNR) treatment model that aims to change offender antisocial attitudes (i.e., neutralizing thoughts, thinking errors) to render more prosocial, non-recidivist outcomes (Bonta & Andrews, 2007).

Attitude Literature and Application in Criminology

Prior to the 1970's, rehabilitation was seen as a highly effective means of correcting an offender's future behavior (Bonta & Andrews, 2007). However, this notion was challenged by Robert Martinson and his partners in their review of offender treatment (Martinson, 1974; Lipton, Martinson, & Wilks, 1975) as they held that 50%-60% recidivism rates were inadequate to render offender rehabilitation effective (Bonta & Andrews, 2007). With their declaration of "nothing works" the criminal justice system diverted their attention and efforts away from rehabilitation and focused them on strict punishments for offenders. This began what is known as the "get tough" movement which has been implemented heavily for the last 30 years, but yet has had very little impact on deterring criminal behavior (Bonta & Andrews, 2007).

Despite the negative consequences that resulted from the "nothing works" ideology, laborious efforts ensued to evaluate treatment programs not only in the United States, but around the world (Bonta & Andrews, 2007; Andrews & Bonta, 2010). This progressive event became known as the "what works" movement which resulted in the numerous positive findings demonstrating that offender treatment was effective (Andrews & Bonta, 2010). Treatments that were consistently found to be effective for reducing offender recidivism were then applied by correctional systems in hopes of rehabilitating offenders (Stohr, Walsh, & Hemmens, 2013). Accordingly, this created the search for evidence-based practices (EBP) or put simply, treatments that would be highly effective in reducing criminal offending.

Risk, Needs, Responsivity (RNR) Model

For programs to be effective in reducing criminal activity, a theoretical model was developed to provide essential guidelines for the correct assessment and treatment of offenders (Bonta & Andrews, 2007). This highly influential mechanism is known as the Risk-Need-Responsivity (RNR) model. Originally formalized as a foundation for all human services in 1990, the model was modified to "enhance and strengthen the design and implementation of effective [correctional] interventions" (Bonta & Andrews, 2007, p. 1). These reformations consisted of three essential principles: risk, need, and responsivity.

The "risk principle" states that offender's risk for reoffending must be matched with the appropriate level of services to effectively reduce recidivism (Bonta & Andrews, 2007; Stohr et al., 2013). The "needs principle" suggests that offenders lack certain needs that put them at a higher risk for offending. Thus, to decrease their risk of reoffending, these needs should receive the highest priority in treatment. However, these two components cannot be effective unless the third principle of "responsivity" is met. In order for treatment to be meaningful and fully adequate in treating the offender, it must be tailored to meet the learning styles, motivations, and developmental stages of the offender. With that said, treatment models are not a "one size fits all;" rather, they must be customized to rehabilitate offenders of all varieties (Stohr et al., 2013; Bonta & Andrews, 2007). Overall, the RNR model is a reliable and valid model for evidence-based treatment programs. However, to ultimately be successful, adherence to all the principles is important (Andrews et al., 2011).

'Needs' Principle

Although all of the aforementioned principles are important to reducing criminal behavior, special attention must be given to the "needs principle" that directly targets

criminogenic attitudes (Bonta & Andrews, 2007). While risk factors are static and cannot be changed, criminogenic needs are dynamic factors that are directly correlated with criminal behavior that can be changed and reformed. More specifically, criminogenic needs consist of procriminal attitudes or rationalizations for crime. Therefore, this model holds that by shifting attitudes from procriminal to prosocial, behaviors will also change as "what you think influences how you behave" (Bonta & Andrews, 2007, p. 5). Accordingly, the way in which we plan, empathize, problem solve, accept responsibility and anticipate the consequences of our actions are processes and skills that encompass our thinking (Voorhis & Salisbury, 2014). Furthermore, the term "cognitive" refers to "what we think, our attitudes, beliefs, values, and the relatively stable manner in which we make sense of our surroundings" (Voorhis & Salisbury, 2014, p. 183).

Criminogenic Thinking

Albert Ellis (1973) recognized, as humans we are all susceptible to irrational beliefs that distort our perceptions and cause us undue pain and unhappiness (Voorhis & Salisbury, 2014). He devised a therapy which incorporated the use of cognitive restructuring to target common irrational ways of thinking. While Ellis (1973) noted common thinking errors of all individuals, Yochelson and Samenow (1976) and later Samenow (2004), identified over 50 common thinking errors specific to offenders.

When Yochelson (1976) first began his treatment with offenders at St. Elizabeth's Hospital in Washington, D.C., he quickly discovered that accepting his patient's stories on how their environment and life has led to their offending had no effect on reducing their behaviors. Rather, he noted that individuals have the right to choose between good and bad and thus, criminal actions are a result of current thinking (Samenow, 2004). Yochelson and Samenow

(1976) identified many offender thinking errors that excuse, support, or reinforce criminal behaviors (i.e., blaming others, failure to empathize, use of anger to control others, the need for power, and many others). Since crimes result from the way an individual thinks (Samenow, 2004), Yochelson and Samenow (2004) held the firm belief that in order to reduce criminal offending, these thinking errors should be strongly addressed in correctional treatment programming, a statement that a meta-analysis has reaffirmed in finding that criminogenic needs of offenders are among the strongest predictors of offender recidivism (Gendreau, Little, & Goggin, 1996).

Glenn Walters (1995) recognized this need for treatment to focus on criminal thinking. To assess criminal thinking content and processes, he developed the Psychological Inventory of Criminal Thinking Styles (PICTS), consisting of eight thinking styles (e.g., mollification, cutoff, entitlement, power orientation, sentimentality, superoptimism, cognitive indolence, and discontinuity) indicative of promoting and upholding a criminal lifestyle (Walters, 2009a). Additionally, Walter's (2006a) developed the proactive and reactive composite scales. In his assessment of the two scales, he found that they equally predicted criminal thinking and change, showing promise for advancing assessment tools to target and treat thinking errors contributory to offending (Walters, 2006a).

Markedly, these composite scales specifically target antisocial and aggressive thinking patterns of offenders (Walters, Frederick, & Schlauch, 2007). When applied to youth, scholars found that the scales accurately identified aggression in children (Dodge, 1991; Dodge & Coie, 1987). Specific to adult offenders, Walters, Frederick, and Schlauch (2007) found that these scales contributed to the assessment and correction of antisocial attitudes and aggressive behaviors of violent criminals. Further, this self-report measure has been found to successfully

predict offending outcomes (Walters, 2009a; Walters, 2006b) and is consistently valid in its measures (Walters & Geyer, 2010; Walters, 2009a). As such, these distorted thinking styles as noted by Walters (1995) have been incorporated into the criminogenic needs principle of RNR to effectively implement treatment to reduce recidivism.

Neutralization Theory

Another perspective as to why a criminal antisocial attitude focus in treatment is effective can be found in Sykes and Matza's (1957) theory of neutralization. In parallel with Festinger's (1957) theory of cognitive dissonance, an individual may experience a period of dissonance when deciding to act criminally. While choosing to engage in a criminal act may seem advantageous, this attitude will also be impacted by beliefs and subjective norms of the individual that may suggest that this behavior is morally wrong and punishable. It is during this period of attitude-behavior mismatch that the offender must decide whether to change their behavioral choice (i.e. crime or no crime) or change their attitude.

Unfortunately, as Yochelson and Samenow (1976) discovered, criminals consciously develop thinking errors or consonant thoughts (Festinger, 1957) that excuse them of responsibility for their actions and serve their desires for immediate gratification (Mandracchia, Morgan, Garos, & Garland, 2007). Similarly, Sykes and Matza (1957) posited that offenders use many defenses (i.e., denial of responsibility, denial of injury, denial of the victim, condemnation of the condemners, appeal to higher loyalties) to justify and sustain their deviant behavioral choices, known as the five techniques of neutralization. This theory then not only helps to explain criminal behavior, but also demonstrates how criminal attitudes allow offenders to diverge from social norms (Sykes & Matza, 1957). In summary, criminal consciously develop or

learn neutralizations, or consonant thoughts, to excuse their unlawful behavior and relieve dissonance so that the can continue to engage in crime.

Cognitive Behavioral Therapy (CBT)

As it can be understood that criminal antisocial attitudes contribute to their criminal behavior, cognitive-behavioral therapy (CBT) serves the goal of offender treatment in that this therapy is based on the premise that our cognitive processes affect how we feel and behave. This idea was realized by Beck (1967) who coined the term automatic thoughts, as those cognitions which have become fixed over time. Due to the repetition of their use, the individual no longer is aware that they are being used, but their affect is still unknowingly influenced (Beck, 1967). Additionally, these self-verbalizations, which have become automatic, are the prerequisite for behavior and if these thoughts are maladaptive, then the behavior will be adversely affected as well (Meichenbaum, 1977).

With these principles in mind, the focus of cognitive behavioral therapy is to target and bring to consciousness these automatic cognitions in order to improve the way a client thinks and feels which will subsequently affect how they interact with their environment (Meichenbaum, 1977). This is accomplished by having the client engage in self-observation to address their maladaptive thoughts and then teaching the client a new internal dialogue and how to apply this narrative in real-world situations (Meichenbaum, 1977).

Integration of the RNR Model

As previously mentioned, controlled and automatic processes of the attitude behavior relationship can be used to explain criminal behavior. When an offender chooses to engage in crime, he or she may initially experience a period of dissonance in that engaging in criminal behavior is unlawful. However, to engage in this desired behavior, they may consciously choose

to self-verbalize that their behavior is justified in some way so that they may proceed with crime (Meichenbaum, 1977). Over the course of time, the repetition of this thinking and subsequent self-serving behavior, can lead to the automaticity of these neutralizations whereas the offender may no longer experiences dissonance when choosing to engage in criminal activity.

Given that these dysfunctional thinking patterns are initially learned from others, rather than being innate to the individual, CBT serves as a "top tier rehabilitative treatment" (Lizama, Matthews, Reyes, 2014, p. 4 as cited in Lipsey, Landenberger, & Wilson, 2007) in changing criminal attitudes and behaviors as it serves as a foundation for addressing the "needs" principle of the RNR model.

Criminal attitudes allow for offenders to engage in overt behaviors. Fortunately, these cognitions are not innate to individuals, but rather are learned by observation and the modeling of others (Lizama et al., 2014; Voorhis & Salisbury, 2014). With that said, role models and the process of modeling are crucial for addressing criminal thinking patterns in treatment and as such, are incorporated in the CBT approach (Lizama et al., 2014; Voorhis & Salisbury, 2014).

Using social learning, many successful offender treatment programs engage in a cognitive-behavioral approach to change and restructure the many thinking errors held by offenders (Lizama et al, 2014; Voorhis & Salisbury, 2014). As counselors recognize that cognitions and behaviors are learned and that criminal actions are reinforced, supported, and mediated by criminal thinking patterns, social learning methods of modeling and role play are utilized in replacing thinking errors with pro-social thoughts and behaviors to reduce future criminality (Lizama et al., 2014; Voorhis & Salisbury, 2014). For as Voorhis and Salisbury (2014) state, "what we do in our minds controls what we do in our lives" (p. 196).

As indicated, irrational thinking leads to cognitive distortions of reality. For offenders, this is a noteworthy problem given that their errors in thinking are predictive of criminal behavior (Kroner & Morgan, 2014; Sykes & Matza, 1957). Furthermore, these thinking patterns remain somewhat stable throughout an offender's lifetime unless treatment measures are taken to correct this issue. Specifically, the use of cognitive-behavioral treatment (CBT) assists in making these changes by addressing criminal thinking errors and altering them through the use of social learning processes (i.e. reinforcement of pro-social attitudes, use of rewards and punishment, use of role-play, rehearsal and practice of prosocial behaviors, prosocial coping strategies) in a group setting (Lizama et al., 2014; Voorhis & Salisbury, 2014). Further, as noted by scholars Andrews, Bonta, and Wormith (2011), when CBT incorporates core principles of the RNR model with its focus on criminogenic needs, or offender attitudes, it is highly effective in reducing reoffending.

Effectiveness of RNR

General Offending: Of the various CBT treatment programs for offenders that utilize the RNR model for general offending, one widely used treatment program is the Reasoning and Rehabilitation which academics have found to be effective in reducing recidivism among mentally ill offenders (Clarke et., 2010), nonviolent offenders (Berman, 2005; Clarke et al., 2010), and sex offenders (Hanson et al., 2009).

In their study of mentally ill offenders, Clarke and his colleagues (2010) examined changes in criminogenic thinking and problem solving pre- and post-treatment. While a reduction in criminal attitudes was not a substantial finding in this study, results indicated significant improvement in problem solving and coping skills following program completion. Despite the small sample size of this study, it should be noted that these findings demonstrated

the utility of the Reasoning and Rehabilitation program among offending populations in improving maladaptive behaviors (Clarke et al., 2010).

Using a larger sample size, Berman (2005) found that the Reasoning and Rehabilitation program had positive outcomes in treating criminogenic needs and reducing recidivism among nonviolent offenders. These outcomes were not short-term, but rather demonstrated long-term results (Berman, 2005).

Even more notable are the findings of a meta-analysis conducted by scholars in their review of the effectiveness of treatment programs for sexual offenders (Hanson et al., 2009). In their thorough examination of 23 recidivism outcome studies, these academics observed the lowest recidivist rates among programs that adhered to RNR principles. Specifically, sexual and general recidivism rates were approximately 8% and 16% lower among those who received RNR based treatments respectively (Hanson et al., 2009).

Violent Offending: The literature on whether treatment programs reduce violent offending is limited; however, it strongly suggests that interventions for violent offenders can be effective in reducing recidivism. In their study examining the Violence Prevention Project (VPP), a program that treats violent offenders using social learning principles, Polascheck and Dixon (2001) found this program to be effective in reducing convictions for participants who completed the program compared to non-completers. With a duration of 3 months and consisting of four 90-minute sessions per day five days a week, this program also incorporates the use of individual and group therapy. While components of this treatment program were developed by experienced clinical psychologists, less experienced clinicians assisted in the implementation of the sessions. Although this program did not use CBT, its emphasis on social learning methods (i.e. use of modeling, group therapy, rehearsal of newly learned skills and behaviors) was

effective in reducing recidivism. Further, although this treatment did not adhere to a specific model, its focus on reducing criminal behaviors by teaching offenders' new skills and prosocial alternatives parallels with the 'needs' principle of the RNR treatment model (Polaschek & Dixon, 2001).

Conversely, another intervention, known as the Persistently Violent Offender (PVO) Treatment Program, that does not specifically adhere to RNR principles, but uses the CBT approach, was found to be ineffective in reducing institutional misconduct and reoffending among persistently violent offenders (Serin et al., 2009). However, a notable difference of this program, in comparison to Polaschek and Dixon's (2001) study of the VPP, can be seen in the differences in program implementation. While the PVO Treatment Program was longer in duration (i.e. 144 hours), the amount of sessions per week differed in that the VPP had the same amount of sessions, but the duration of each session was shorter. Thus, perhaps these differences in which the program was executed may help to explain the discrepant findings among studies (Serin et al., 2009; Polaschek & Dixon, 2001).

While the study by Serin, Gobeil, and Preston (2009) may suggest lack of effectiveness for CBT based programs, a plethora of literature states otherwise (Cortoni et al., 2006; Polaschek, 2010; Polascheck, 2010; Polaschek et al., 2005; Ronan et al., 2010; Wilson, Bouffard, & Mackenzie, 2005; Wong et al., 2012). Wilson, Bouffard, and Mackenzie (2005) conducted a meta-analysis of CBT programs delivered to groups of convicted offenders. Among the many cognitive-restructuring programs examined in this study, including the Moral Reconation Therapy and Reasoning and Rehabilitation, both known for implementing the RNR model, they found that these programs are not only effective in teaching cognitive skills and employing

cognitive restructuring approaches, but are highly effective in reducing recidivism among all offender types (Wilson et al., 2005).

Wong and his colleagues (2012) evaluated the effectiveness of CBT based violence reduction treatment programs that employed the use of RNR principles. The sample groups consisted of psychopathic offenders who were known for their antisocial and violent behaviors. For all three treatment groups, reductions in violent reoffending were found. However, it is important to note a significant method used in this study. While some treatment studies only measure recidivism as a dichotomous yes or no variable, this analysis measured time prior to reoffending and offense severity. Their results found that desistance is gradual, especially for violent offenders upon treatment completion. Thus, if studies do not consider additional measures of recidivism, they will inaccurately report whether a program is effective. Such was the case of this study in which these scholars admitted that if they measured recidivism dichotomously, they would have found no evidence of program effectiveness at all. Further, they stated that programs do not instantly reduce recidivism, but rather can lessen the severity of reoffending as found in their study (Wong et al., 2012).

Another CBT based program utilized in New Zealand for treating high-risk violent offenders was evaluated by Polaschek and her colleagues (2005). The outcomes of this program for violent offenders, known as the Violent Prevention Unit (VPU), found significant reductions in violent reoffending over a period of 2 or more years and among those who reoffended, a longer period of time passed before another criminal behavior was committed following treatment in comparison to the control group of untreated offenders. Yet, they found no reductions in nonviolent recidivism which they postulated to either be a result of a lack of focus on nonviolent offender criminogenic needs or methodological error (Polaschek et al., 2005).

In another study of a treatment program that targets medium to high risk offenders, Polaschek (2010) conducted a quasi-experimental investigation of the Rimutaka Violence Prevention Unit to assess the outcome for completers of this CBT based program. This intervention is approximately 330 hours and consists of group sessions held over a period of 28 weeks. Like her previous study on the Violence Prevention Unit (VPU), she again found lower reconviction rates among high risk completers of the program. Likewise, those who reoffended desisted longer compared to the control group over a post release follow-up period of 3.5 years (Polaschek, 2010).

Although research has shown that programs treating violent offenders can reduce recidivism, a common problem for these interventions is the elevated rates of dropout or program non-completion (Wormith & Olver, 2002). Scholars have postulated that the reasoning for this failure to complete treatment maybe centered upon one's readiness to change (Ronan et al., 2010). These scholars also addressed whether a treatment focus specifically on violent offender needs (i.e., strategies for resolving high conflict situations, social problems solving skills, readiness to change) was an effective rehabilitative plan. Their results suggested that a CBT approach, with a focus on violence reduction, was effective in increasing problem solving skills and anger management strategies. However, despite acquiring these new prosocial skills, one's readiness for change effected whether these new behaviors were implemented in one's lifestyle (Ronan et al., 2010).

Given the findings presented, it can be seen that CBT based programs with special attention given to cognitive restructuring and the 'needs' principle of the RNR model, can effectively reduce recidivism and generate positive thinking patterns among violent offenders

(Cortoni et al., 2006; Dowden & Andrews, 2000; Polaschek, 2010; Polascheck & Dixon, 2001; Polaschek et al., 2005; Wilson et al., 2005; Wong et al., 2012;).

Summary

Once determined as nothing works, research has been consistently evolving in evaluating treatment programs. The Risk-Needs-Responsivity (RNR) model has served as a valid and reliable guideline for mental health treatment. Improvements of the model were made to specifically address the correctional treatment of criminals. Special attention has been given to the 'needs' principle of RNR that addresses criminogenic attitudes. As established by Yochelson and Samenow (1976), treatments must serve to correct criminal thinking error rather than excuse it, for cognitive distortions are the foundations for a criminal lifestyle. Walters (1995) built upon this idea and developed the Psychological Inventory of Criminal Thinking Styles (PICTS). This assessment addressed eight specific thinking errors that contribute to criminal offending.

Another way in which to understand criminal thinking and how it leads to antisocial behaviors was explained by Sykes and Matza's (1957) theory of neutralization. This theory identifies how offenders maintain thinking errors that justify their overt behaviors and allow them to deviate from the moral codes of society. These thinking errors parallel with Walters (1995) PICTS in that they both represent cognitive distortions held by offending individuals in explaining offending behaviors.

As thinking errors are understood as being learned from others, the cognitive-behavioral therapeutic (CBT) approach serves as an effective treatment modality in addressing the RNR principles and specifically, in changing offender thinking patterns to reduce recidivistic behaviors (Andrews et al., 2011; Lipsey, Landenbeeger, & Wilson, 2007; Lizama et al., 2014). Through its implementation of social learning principles the CBT approach acts to restructure

criminal thinking patterns by helping offenders to identify their distortions and teaching them new pro-social thoughts and behaviors (Andrews et al., 2011; Lipsey et al., 2007; Lizama et al., 2014; Voorhis & Salisbury, 2014).

Among general offending, treatment programs that utilize the RNR model and CBT or social learning treatment modalities, have been evidenced to reduce recidivism among mentally ill offenders, sex offenders, and nonviolent offenders (Berman, 2005; Clarke et al., 2010; Hanson et al., 2009). Among violent offenders, similar findings of effectiveness in changing criminal thinking patterns and reducing recidivism have also been found (Cortoni et al., 2006; Dowden & Andrews, 2000; Polaschek, 2010; Polascheck & Dixon, 2001; Polaschek et al., 2005; Wilson et al., 2005; Wong et al., 2012;). Although, other studies have not shared similar findings in reducing reoffending patterns (Serin et al., 2009). However, in comparing these studies, a possible explanation for these differences may be found in other factors of these programs other than criminal attitudes, such as program implementation (i.e. duration, intensity) (Polaschek & Dixon, 2001).

Synopsis of Literature

Our attitudes affect the way in which we think about and respond to our environment (Ajzen, 1991; Ajzen & Fishbein, 1980; Fazio, 1986). While scholars have agreed that attitudes affect our behaviors, they have differing opinions of whether this relationship is automatic or controlled (Ajzen, 1991; Ajzen & Fishbein, 1980; Fazio, 1986). According to Fazio (1986), our attitudes color our perceptions of the world and influence how we respond to our circumstances. These automatic behavioral responses are mediated by subjective norms held by society and how often the attitude is used, affecting its accessibility (Fazio, 1986). Conversely, Azjen and Fishbein (1980) held that while we have attitudes, we are rational beings who have the cognitive

capacity to choose how and when we react to these thoughts. Hence, our behavioral performance is determined rather by a deliberative thinking process that takes into account one's attitude toward the behavior and societal norms (Azjen & Fishbein, 1980). In extending their theory, Azjen (1991) further held that the individual must believe that they have control over their intentions and actions, known as perceived behavioral control, in order to engage in their chosen behavior. Thus, according to Azjen and Fishbein (1980, 1991), a behavior is consciously determined by one's intentions and confidence in their ability to act.

Even though attitudes lead to behavior, an individual may experience distress when their held attitude and desired behavior do not align (Festinger, 1957). Festinger referred to this experience as cognitive dissonance. He held that during this period of dissonance, an individual either chooses to change their behavior or change their attitude in order to reduce this negative feeling. If one chooses to maintain their behavior, they will change their attitude by either decreasing its importance or by creating a new attitude (i.e. consonant cognition) (Festinger, 1957). This also helps to understand criminal behavior, as Samenow and Yochelson (1976) found when working with offenders, in that cognitive processes occur before, during, and after the commission of a criminal act.

As stated by Fazio (1986), attitudes are malleable and can be changed, an idea that is central to the Risk, Needs, Responsivity (RNR) model (Bonta & Andrews, 2007). Used to change criminal thinking and recidivist outcomes, this reliable and valid model upholds matching program services to meet offender risk, targeting offender needs, and reinforces that programs should be tailored to meet the developmental stages of offenders, their motivations, and their style of learning. While all three principles are important for proper implementation of this model, the "needs" principle specifically targets offender attitudes that rationalize crime. It is

this focus on changing offender thinking patterns that consequently influences their future behaviors (Bonta & Andrews, 2007).

To change these irrational ways of thinking, Albert Ellis (1973) originally held that all people suffer from errors in thinking and cognitive restructuring should be utilized in therapy to change these distorted perceptions. Specific to offenders, Yochelson and Samenow (1976, 2004) recognized, in their treatment with offenders, that these individuals also have common errors in thinking that allow for overt behavior which they also suggested should be targeted in offender intervention. This idea was pursued by Glenn Walters (1995) who developed the Psychological Inventory of Criminal Thinking Styles (PICTS) which identified eight common thinking styles of offenders that effect overt behavioral choices. When incorporated into the "needs" principle of the RNR, this valid self-report measure has successfully predicted offender behaviors (Walters, 2009a; Walters, 2006b; Walters & Geyer, 2010).

To understand why criminal thinking and/or attitudes are strong predictors of offending behavior (Gendreau et al., 1996), Sykes and Matza's (1957) theory of neutralization, like Festinger's (1957) theory of cognitive dissonance, asserts that offenders may experience internal conflict when deciding whether to act criminally. Rather than changing their behavior, they change their attitudes in order to gain the rewards of their criminal behavior, which these scholars coined as neutralizations (i.e., denial of responsibility, denial of injury, denial of the victim, condemnation of the condemners, appeal to higher loyalties) which aid to justify overt behavior (Sykes & Matza, 1957). Simply put, "techniques of neutralization are used to cognitively prepare oneself for potential dissonance" in order to engage in criminal pursuits (Simourd, 1997, p.54).

Given that these ways of thinking are learned from others, cognitive-behavioral therapy (CBT) serves an effective treatment modality to the RNR model in addressing these specific criminogenic needs (Lipsey et al., 2007; Lizama, Matthews, & Reyes, 2014) that predict criminal behaviors (Kroner & Morgan, 2014; Sykes & Matza, 1957). By using social learning, these criminal attitudes are challenged and new prosocial ways of thinking and behaving are taught and reinforced to reduce reoffending (Andrews et al., 2011; Lizama et al., 2014; Voorhis & Salisbury, 2014).

Although academics have come to discover that RNR modeled treatment programs are effective for both general (Berman, 2005; Clarke et al., 2010; Hanson et al., 2009; Clarke et al., 2010) and violent offenders (Cortoni et al., 2006; Dowden & Andrews, 2000; Polaschek, 2010; Polascheck & Dixon, 2001; Polaschek et al, 2005; Wilson et al., 2005; Wong et al., 2012), much research is still needed to further clarify the underlying mechanisms that effect offender change.

Many of these mechanisms were unveiled by Landenberger and Lipsey (2005) in their meta-analysis of over 50 studies in evaluating the effectiveness of cognitive-behavioral therapy (CBT). One mechanism is the implementation of CBT, which can vary results greatly, a point also made by Kroner and Morgan (2014) who suggested that, at the minimum, treatment should be 15 sessions or more. Quality of implementation is also important to ensure that the treatment program is delivered accurately and consistently adheres to its guidelines (Landenberger and Lipsey, 2005).

Notable in their meta-analysis (Landenberger & Lipsey, 2005) was the finding that the "effects of CBT were greater for offenders with higher-risk of recidivism than those with lower-risk" (p. 471). Thus, one could assume that programs that target antisocial attitudes and behaviors common of violent offenders could further reduce violent reoffending. However, as

suggested by Kroner (2012), although we know that CBT programs are effective, we still are limited in knowing the causal mechanisms that create the individual change among offenders. So "although a change of criminal thinking patterns is occurring in the … research, we do not know how or why this change is occurring" (Kroner, 2012, p. 20). Hence, future research should focus on analyzing the underlying mechanisms of treatment that are favorable to reducing criminal reoffending (Kroner, 2012).

While the literature suggests the importance of criminal antisocial attitudes in understanding criminal behavior, this construct has not been singularly examined in assessment and treatment of offenders due to lack of suitable assessments of this construct (Simourd, 2002). The current study will try to answer Kroner (2012) by looking at whether antisocial attitudes are causal mechanisms in changing criminal thinking patterns. While the context of what a person is thinking or feeling may be difficult to assess, this latent construct can understood by measuring one's beliefs, values, and feelings regarding an attitude object and criminal activity (Ajzen, 2005; Simourd, 1997; Rosenberg & Hovland, 1960) which is unique to two assessment instruments, the Pride in Delinquency scale (PID) and the Criminal Sentiments Scale (CSS), that measure one's values, beliefs, and antisocial attitudes related to criminal behavior and degree of comfort when engaging in overt behavior (Simourd, 1997). Additionally, this study will also look to see whether a positive change in criminal thinking will reduce general and violent reoffending as well as whether attitude changes predict the severity of reoffense given that violent offending poses many burdens upon society (Serin et al., 2009).

Research Hypotheses

H_1:   Pre-treatment CSS-M change scores should decrease due to the program.

H_2:   Pre-treatment PID change scores should decrease due to the program.

H_3:   A CSS-M change score should predict a reduction of recidivism when controlling for race and index offense.

H_4:   A PID change score should predict a reduction of recidivism when controlling for race and index offense.

H_5:   A CSS-M change score should predict a reduction of violent reoffense when controlling for race and violent index offense.

H_6:   A PID change score should predict a reduction of violent reoffense when controlling for race and violent index offense.

H_7:   A CSS-M change score should predict the severity of reoffense (violent or nonviolent).

H_8:   A PID change score should predict the severity of reoffense (violent or nonviolent).

CHAPTER 3

METHODS

Sample

The data for this study was obtained from the final report of the Counter-Point Community Program (Kroner et al., 2007& Yessine, 2007) that included a sample size of (N=331) federal male offenders under community supervision. The data was originally collected to examine the effectiveness of the Counter-Point program in targeting mechanisms of change and reducing rates of reoffending. The data was taken from the Correctional Service of Canada among five administrative regions between the years of 1999 to 2006. For the purposes of this study, the present sample ($N = 216$) included only those participants who completed the program (see Table 1). A subsample of 78 participants recidivated (recidivism group). Of these reoffenders, 28.21% committed a violent reoffense and 71.79% committed a nonviolent reoffense (see Table 2).

Analytic Approach

Data Cleaning

Prior to statistical analyses (i.e. dependent t-tests, binary logistic regressions), the data were cleaned to ensure that missing data, outliers, and multicollinearity issues were addressed (Tabachnick & Fidell, 2013). Missing data was addressed by substituting missing values with mean centered values. A correlational analysis indicates that multicollinearity was not an issue (see Table 3).

Dependent t-tests

After statistical assumptions were met, a dependent t-test was ran to predict whether a relationship existed between pre- and post-treatment antisocial attitudes. This technique is

appropriate given that there is a comparison of mean values among two dependent samples (Kim, 2015).

Logistic Regressions

After *t*-tests, binary logistic regressions were conducted. This technique was appropriate given that the dependent variables were dichotomized (Tabachnick & Fidell, 2013). The first set of logistic regressions examined the predictive capability of CSS-M and PID scores on recidivism for the full sample ($N = 216$). Specifically, three models were tested. Model 1 examined whether certain subscales in the CSS-M index were predictive of recidivism (versus the overall composite index) and if so, these subscales would be used in the final model. Model 2 examined the effects of CSS-M and PID scores on recidivism outcomes without controls. The final model included all variables. Subsequently, to specifically test for violent reoffending, the recidivism variable was recoded to reflect a violent and nonviolent reoffense whereby no recidivism and nonviolent recidivism were combined into one variable (i.e., violent recidivism = 1, nonviolent recidivism = 0). Similarly, three sets of logistic regression analyses were fashioned according to this recoded violent recidivism variable.

As noted earlier, 78 participants reoffended, thus a third set of logistic regressions were conducted to see whether CSS-M and PID scores were predictive of the severity of reoffense (i.e. violent or nonviolent). Similar to the first set of regressions, three models were also tested with the same specifications mentioned above. Finally, the Nagelkerke's R^2 was used to examine model fit.

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Counter-Point

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Counter-Point is a community-based program for those who have served their term of incarceration but are currently on probation. It is a group intervention specifically designed to

reduce the presence of antisocial attitudes and to increase prosocial attitudes in reducing future criminal behavior (Kroner et al., 2007& Yessine, 2007; Yessine, 2004). The major goals of this program include teaching participants the necessary skills needed to identify and challenge their procriminal attitudes/neutralizations as well as empower them to make these changes (Kroner et al., 2007; Yessine, 2004). Additionally, this program assists participants in developing and adopting prosocial attitudes and well as teaches and provides them with resources for self-management, personal responsibility, perspective-taking, and problem-solving skills in order to uphold behavioral change (Kroner et al., 2007; Yessine, 2004).

Counter-Point consists of 25 sessions, at 2 hours each. These sessions are divided into 3 processes: intake, intervention, and closure (Kroner et al., 2007; Yessine, 2004). The intake process entails 3 individual sessions that focus on orientation, assessment, and goal setting. The intervention process includes 6 modules (i.e. setting the context for change; identifying support for change; identifying pro-criminal attitudes, values, and beliefs; altering pro-criminal sentiments; pro-social problem-solving; maintaining change) that occur in succession over 20 group sessions that are delivered 1 to 3 times per week. Composed of 2 individual sessions, the closure process is utilized to review the individuals progress and formulate a relapse prevention plan with the assistance of a Parole Officer (Kroner et al., 2007; Yessine, 2004).

In addition to incorporating the RNR model, the Counter-Point program works from the social learning perspective and applies CBT to facilitate attitudinal change. Specific techniques used include: self-management, self-monitoring, generic problem-solving skills, perspective taking, prosocial modeling, sequential and structured learning, role play, rehearsal, and effective disapproval and reinforcement. Participants are also required to complete homework for each session that challenges them in applying their newly learned skills to real life situations and

events (Kroner et al., 2007; Yessine, 2004). As this intervention incorporates CBT and the RNR model, the Counter-Point program operates to target offender neutralizations, or attitudes, using social learning principles to transform these automatic thoughts into prosocial narratives in order to reduce future criminality.

Program integrity is maintained as this program is consistently evaluated and uses standardized manuals for delivery of therapy created by qualified and experienced program designers (Kroner et al., 2007; Yessine, 2004). Additionally, standards for participation and program entry are also specifically outlined. The program is delivered by 2 facilitators which are present at each session, who have received training in effective intervention principles and standards professional conduct and have access to clinical guidance and support. Quality control is maintained through fidelity checks by 5 supervisors who review taped sessions or personally attend (Kroner et al., 2007; Yessine, 2004).

Measurement of Attitudes

Two scales were used in the study to measure offender antisocial attitudes pre- and post-treatment. The Criminal Sentiments Scale-Modified (CSS-M) takes into account the criminal antisocial attitude construct and reflects neutralizations specific to criminal behavior (Simourd, 1997; Sykes & Matza, 1957). In addition, the Pride in Delinquency Scale was designed to complement the CSS-M in measuring how attitudes are processed rather than their specific content. Specifically, this scale evaluates the degree in which an offender feels shame or pride in committing a criminal offense (Shields & Whitehall, 1991; Simourd & Olver, 2002). Taken together, these two scales reflect offender antisocial attitudes, specifically their neutralizations of criminal behavior specific to cognitive thought and feelings which are associated with their

criminal behaviors. In this study, both measurements were administered prior to treatment and upon treatment completion.

Criminal Sentiments Scale-Modified (CSS-M) (Simourd, 1997)

The CSS-M is a 41-item self-report instrument that consists of five subscales: Attitudes Toward Law, Courts, Police; Tolerance for Law Violations; and Identification with Criminal Others. Together these scales are used to measure the antisocial attitudes directly related to criminal behavior. For each of the items, respondents are asked to answer whether they agree, disagree, or are undecided. An antisocial statement that is endorsed (or rejection of a prosocial statement) scores 3 points, while an antisocial statement that is rejected (or acceptance of prosocial statement) scores 1 point. Responses that are undecided score a 2. The 41 items are summed into one variable that ranges from 41 to 123 with higher scores reflecting more antisocial attitudes. In this study, this assessment was administered prior to treatment as well as post-treatment to address changes in antisocial attitudes among completers. Scholars have established the validity and reliability of this scale for adult offenders (Simourd, 1997; Simourd & Van de Ven, 1999). Specifically, Simourd and Olver (2002) have demonstrated that the CSS-M has predictive reliability and is linked with criminal outcomes. In this study, this assessment demonstrated high reliability with a Cronbach Alpha of 0.86.

Pride in Delinquency Scale (PID) (Shields & Whitehall, 1991)

The PID scale is a brief 10-item self-report instrument that assess the degree to which neutralizations are applied to various criminal activities (i.e., "Seeing a store being robbed and not calling the police"). A Likert-type scale is used to record responses ranging from -10 to +10. Negative responses indicate shame while positive responses reflect pride in the commission of the criminal act. Undecided responses are indicated by a score of 0. Scores are summed up and

added to a constant of 100 to ensure a positive total with higher scores reflecting increasing antisocial attitudes. To determine whether changes in antisocial attitudes occurred among completers, this assessment was administered pre- and post-treatment. This scale possesses acceptable psychometric properties and is a reliable and valid measure of antisocial attitudes among young (Shields & Whitehall, 1991) and adult (Simourd, 1997) offenders. Among nonviolent offenders, Simourd and Van de Ven (1991) further indicated that the PID was predictive of recidivist behaviors.

Independent Variables

CSS-M Change Scores

To account for differences between pre- and post-treatment CSS-M scores, this variable was measured by subtracting post-treatment CSS-M scores from pre-treatment CSS-M scores. A negative change score indicated an increase in antisocial attitudes, whereas a positive change score indicated a decrease in antisocial attitudes.

PID Change Scores

To account for differences between pre- and post-treatment PID scores, PID Change Scores were measured by subtracting post-treatment PID scores from pre-treatment PID scores. A negative change score indicated an increase in antisocial attitudes, whereas a positive change score indicated a decrease in antisocial attitudes.

Control Variables

Index Offense Type

Generally, past behavior predicts future behavior (Ouellete & Wood, 1998). This statement can also be said for criminal offending (Bonta et al., 1998). To account for this effect of prior offenses on recidivism, each initial offense upon entering the Counter-Point program

was dichotomously coded (violent = 1; nonviolent = 0). Of the original 24 index offenses recorded, seven were coded to reflect violent offenses. These index crimes included: robbery, extortion, murder, attempted murder, manslaughter, assaults, and threats, as these offenses are identified by the FBI's Uniform Crime Reporting (UCR) Program (Barnett-Ryan, 2007) as violent crimes. The remaining 17 items were coded to reflect nonviolent offenses: drug offenses, property, loitering, fraud, forgery, false pretenses, negligence, major driving offenses, sexual offenses, possession of weapons or explosives, kidnapping, confinement, hijacking, arson, treason, smuggling, and income tax evasion. Sample 1 (full sample, N=216) (see Table 1) had 36.11% violent index offenses and 63.89% nonviolent index offenses. Sample 2 (subsample, N=78) (see Table 2) had 34.61% violent index offenses and 65.39% nonviolent index offenses.

Race

As stated by Spiropoulos and her colleagues (2014), race contributes to differences in recidivist outcomes following correctional rehabilitation. To account for these differences, race was measured by constructing a dummy variable (White = 1; other = 0). Five items were merged to create the other category: Black, Native, Asian, Other, and Hispanic. The racial composition of Sample 1 (see Table 1) was 78.7% White and 21.3% other. The racial composition of Sample 2 (see Table 2) was 75.64% White and 24.36% other.

Dependent Variables

General Recidivism

Following completion of the Counter-Point program, occurrence of a reoffense (i.e. recidivism) was measured dichotomously (0 = no; 1 = yes). Reoffense was measured each time an offender recidivated, and every subsequent offense was also recorded. However, for the purposes of this study, only the first reoffense was utilized as a measure of general recidivism.

Within Sample 1 (see Table 1), 63.88% of the subjects reoffended following treatment

completion.

Recidivism Group

If a new offense was committed, signified by a re-arrest following program completion,

the reoffense was dichotomously coded (violent = 1; nonviolent = 0). As with index offense type,

violent and nonviolent reoffense type was coded identically (Barnett-Ryan, 2007). Among those

who recidiviated, 28.21% of offenders had a violent reoffense and 71.8% had a nonviolent

reoffense (see Table 2).

Table 1. Summary of Program Completers Descriptive Statistics

Variable	Description	Descriptive Statistics		
		Mode	Percentage	Range
Recidivism	0 = No, 1 = Yes	0	63.88%	0-1
White	0 = Other, 1 = White	1	78.70%	0-1
Index Offense Type	0 = Nonviolent, 1=Violent	0	36.11%	0-1
		Mean	S.D	Alpha
CSS-M Change Scores	Pre-CSS-M scores - Post-CSS-M scores	4.41	9.40	0.725
PID Change Scores	Pre- PID scores - Post-PID scores	7.92	37.39	-

Note: N = 216

Table 2. Summary of Recidivism Group Descriptive Statistics

Variable	Description	Descriptive Statistics		
		Mode	Percentage	Range
Recidivism	0 = No, 1 = Yes	1	100.00%	0-1
Reoffense Type	0 = Nonviolent, 1=Violent	0	28.21%	0-1
White	0 = Other, 1 = White	1	75.64%	0-1
Index Offense Type	0 = Nonviolent, 1=Violent	0	34.61%	0-1
		Mean	S.D	Alpha
CSS-M Change Scores	Pre-CSS-M scores - Post-CSS-M scores	3.92	9.44	0.692
PID Change Scores	Pre- PID scores - Post-PID scores	6.05	37.25	-

Note: N = 78

CHAPTER 4

RESULTS

Prior to testing any hypotheses, correlation analyses were conducted for both Samples 1

and 2 to tease out the bivariate relationships between the variables (see Tables 3 and 4,

respectively). The correlations indicate that neither, CSS-M or PID change scores were

significantly correlated with recidivism or reoffense variables. However, the relationships were

in the predicted direction for recidivism in Sample 1 (i.e. negative). Surprisingly, the relationship

between CSS-M and PID change scores for Sample 2 were not in the predicted direction (i.e.

positive); thus, the correlations suggest that positive change scores also increase the likelihood

violent recidivism (this will be explored later on). Despite the lack of significance and predicted

directions, logistic regressions were carried out to tease out these relationships net of controls

(i.e. hypotheses 3 through 8).

Table 3. Correlation Coefficients (Sample 1)

Variables	(1)	(2)	(3)	(4)	(5)
(1) Recidivism	1.000				
(2) White	-0.056	1.000			
(3) Index Offense Type	-0.023	-0.103	1.000		
(4) CSS-M Change Scores	-0.039	0.077	-0.035	1.000	
(5) PID Change Scores	-0.038	0.100	-0.053	0.396**	1.000

Note: $p < 0.05$*, $p < 0.01$**, $N = 216$

Table 4. Correlation Coefficients (Sample 2)

Variables	(1)	(2)	(3)	(4)	(5)
(1) Reoffense Type	1.000				
(2) White	0.024	1.000			
(3) Index	0.442**	-0.215	1.000		
(4) CSS-M Change Scores	0.187	0.193	-0.161	1.000	
(5) PID Change Scores	-0.08	0.123	-0.169	0.266*	1.000

Note: $p < 0.05$*, $p < 0.01$**, $N = 78$

Hypothesis 1 and 2 were supported. In Sample 1 (see Table 5), the CSS-M and PID treatment total scores decreased demonstrating a significant reduction in antisocial attitudes upon program completion. Specifically, pre CSS-M total scores were on average four points higher than CSS-M total post scores. Additionally, pre PID scores were on average eight points higher than PID post scores. These differences were statistically significant ($p <0.01$, paired t-test) with small effect sizes (Cohen, 1988). In Sample 2 (see Table 6), the CSS-M and PID treatment total scores also decreased, demonstrating a significant reduction in antisocial attitudes upon program completion. Specifically, pre CSS-M total scores were on average four points higher than CSS-M total post scores. These differences were statistically significant with the exception of pre-post scores for the CSS-Police subscale and pre-post scores for the PID ($p <0.01$, paired t-test), with small effect sizes (Cohen, 1988).

Table 5. Paired T-Test for Program Effectiveness (Sample 1)

	Variable	Paired Differences ($N = 216$)				
		Mean	Std. Deviation	Std. Error Mean	t	d
Pair 1	Pre-Post CSS-Law[b]	0.940	2.445	0.166	5.652***	0.384
Pair 2	Pre-Post CSS-Courts	0.875	3.142	0.214	4.091***	0.278
Pair 3	Pre-Post CSS-Police	0.750	2.471	0.168	4.461***	0.304
Pair 4	Pre-Post CSS-Identification	0.519	2.275	0.155	3.354**	0.228
Pair 5	Pre-Post CSS-Tolerance[a]	1.329	3.165	0.215	6.170***	0.420
Pair 6	Pre-Post CSS Total[b]	4.413	9.403	0.640	6.897***	0.469
Pair 7	Pre-Post PID	7.921	37.391	2.544	3.113**	0.212

Note: p < 0.05*, p < 0.01**, p < 0.001***
[a] Significant difference in violent reoffenders at p < 0.01
[b] Significant difference in violent reoffenders at p < 0.05

Table 6. Paired T-Test for Program Effectiveness (Sample 2)

	Variable	Paired Differences ($N = 78$)				
		Mean	Std. Deviation	Std. Error Mean	t	d
Pair 1	Pre-Post CSS-Law	0.720	2.428	0.275	2.618*	0.297
Pair 2	Pre-Post CSS-Courts	0.795	3.051	0.345	2.301*	0.261
Pair 3	Pre-Post CSS-Police	0.782	2.886	0.327	2.393	0.271
Pair 4	Pre-Post CSS-Identification	0.308	2.365	0.268	1.149**	0.130
Pair 5	Pre-Post CSS-Tolerance	1.321	3.273	0.371	3.563**	0.404
Pair 6	Pre-Post CSS Total	3.925	9.443	1.069	3.671***	0.416
Pair 7	Pre-Post PID	6.050	37.256	4.218	1.434	0.162

Note: p < 0.05*, p < 0.01**, p < 0.001***

Hypothesis 3 and 4 were not supported (see Table 7). Specifically, treatment gains, as demonstrated by CSS-M and PID positive change scores, were not statistically related to reductions in recidivism (i.e. first instance of reoffending upon program completion) although they were in the predicted direction. In fact, none of the variables reached statistical significance.

Consequently, it seems that changes in antisocial attitudes, race, and original index offense were not predictive of recidivism.

Table 7. Logistic Regression for Recidivism (Sample 1)

Variable	Model 1			Model 2			Model 3		
	b	S.E.	Exp(β)	b	S.E.	Exp(β)	b	S.E.	Exp(β)
CSS-M Change Scores				-0.007	0.017	0.993	-0.006	0.017	0.994
CSS-Law	-0.068	0.065	0.934						
CSS-Courts	-0.016	0.059	0.984						
CSS-Police	0.031	0.071	1.032						
CSS-Identification	-0.079	0.069	0.924						
CSS-Tolerance	0.036	0.057	1.036						
PID Change Scores				-0.001	0.004	0.999	-0.001	0.004	0.999
White							-0.276	0.344	0.759
Index Offense Type							-0.138	0.299	0.871
Nagelkerke R^2		0.016			0.003			0.008	

Note: N =216

Violent Recidivism Results

After dichotomizing the recidivism outcome variable to reflect violent and nonviolent recidivism, no support was found for hypotheses 5 or 6 (see Table 8). In models 1 and 2, neither the specific subscales for CSS-M nor total change scores for CSS-M and PID were significant. Furthermore, in model 3, neither CSS-M nor PID change scores were significant after controlling for index offense type and race. However, index offense type was significantly related to violent reoffense (Exp(β) = 4.633, $p < 0.01$). That is, those who entered the Counter-Point program initially for a violent crime were over four and half times more likely to reoffend violently.

Hypothesis 7, conducted using the subsample (N=78), was not supported in the predicted direction (see Table 9); however, two notable findings emerged. First, the results suggest that among participants who recidivated, those with an initial violent index offense were approximately 14.5 times more likely to reoffend violently (Exp(β)=14.396, p < 0.01). Surprisingly, results demonstrate that positive change scores in antisocial attitudes, as measured

by CSS-M change scores, actually increased the severity of violent reoffending (Exp(β)=1.089, *p*
<.05). Thus, participants who actually made treatment gains (i.e. those who held less antisocial
attitudes after treatment) were slightly more likely to reoffend violently. In addition, hypothesis 8
was not supported. Although PID change scores were in the predicted direction, they did not
achieve statistical significance. This final model reasonably fit the data (Nagelkerke's R^2 =
0.393).

Table 8. Logistic Regression for Violent Reoffense (Sample 1 Recoded)

Variable	Model 1			Model 2			Model 3		
	b	S.E.	Exp(β)	b	S.E.	Exp(β)	b	S.E.	Exp(β)
CSS-M Change Scores				0.038	0.026	1.039	0.042	0.027	1.043
CSS-Law	0.000	0.098	1.000						
CSS-Courts	-0.059	0.092	0.943						
CSS-Police	0.121	0.108	1.129						
CSS-Identification	-0.106	0.106	0.900						
CSS-Tolerance	0.130	0.088	1.139						
PID Change Scores				-0.006	0.007	0.994	-0.005	0.006	0.995
White							0.035	0.564	1.035
Index Offense Type							1.533**	0.490	4.633
Nagelkerke R^2		0.046			0.021			0.121	

Note: p < 0.05*, p < 0.01**, N = 216

Table 9. Logistic Regression for Reoffense Type (Sample 2)

Variable	Model 1			Model 2			Model 3		
	b	S.E.	Exp(β)	b	S.E.	Exp(β)	b	S.E.	Exp(β)
CSS-M Change Scores				0.052	0.030	1.053	0.086*	0.038	1.089
CSS-Law	0.076	0.115	1.079						
CSS-Courts	-0.018	0.103	0.982						
CSS-Police	0.077	0.110	1.080						
CSS-Identification	-0.078	0.128	0.925						
CSS-Tolerance	0.132	0.105	1.141						
PID Change Scores				-0.005	0.007	0.995	-0.002	0.008	0.998
White							0.486	0.732	1.625
Index Offense Type							2.667**	0.673	14.396
Nagelkerke R^2		0.082			0.056			0.393	

Note: p < 0.05*, p < 0.01**, N = 78

CHAPTER 5

DISCUSSION AND CONCLUSION

The present study examined whether attitude change occurred in the Counter-Point program and whether these changes in antisocial attitudes predicted likelihood of recidivism, violent recidivism, and severity of reoffense. By examining these relationships between attitudes and behavior among offenders in the Counter-Point program, this study allowed for a more in-depth investigation of whether antisocial attitude change is a strong predictor of recidivist outcomes.

Statistical analysis of pre- to post-treatment measures of antisocial attitudes indicated that following treatment, antisocial attitudes decreased as predicted. This is consistent with the current literature in that treatment works; specifically, treatment that adheres to the RNR model and is implemented using cognitive-behavioral therapy (CBT) (Berman, 2005; Hanson et al., 2009; Clarke et al., 2010; Landenberger & Lipsey, 2005; Lipsey et al., 2007; Lizama et al., 2014).

CBT is based on the premise that cognitive distortions influence behavior and thus deviant behavior is a result of criminal thinking (Lipsey et al., 2007). Given that these attitudes are learned, rather than intrinsic to the individual, this treatment modality aids offenders in identifying and challenging their antisocial attitudes. Once identified, CBT is then used to restructure these cognitions into prosocial thoughts that will influence positive rather than adverse behaviors (Lipsey et al., 2007; Lizama, et al., 2014; Voorhis & Salisburg, 2014). As treating offender antisocial attitudes or addressing the "needs" principle of the RNR model (Bonta & Andrews, 2007) is important to reduce offending behavior, it makes sense that

Counter-Point program, which adheres to this model and treatment modality, was effective in reducing antisocial attitudes following treatment completion.

While it is evident that CBT is effective, the central issue is whether these changes in offender antisocial attitudes are the key mechanism responsible for recidivist outcomes (Landenberger & Lipsey, 2005). When conducting statistical analyses to determine whether positive changes in antisocial attitudes following treatment decreased the likelihood of recidivism and violent recidivism, this study did not find support for this effect. While it may seem as though positive antisocial attitude change is not a predictor of recidivism, rather it may simply be that this effect was not found due to the fact that change takes time (Bushway, Piquero, Cauffman, & Mazerolle, 2001; Kroner & Yessine, 2013).

Although attitudes are malleable (Ajzen, 2005) criminal thinking patterns occurring regularly in an offender's life become more stable over time (Kroner & Morgan, 2014). During and following treatment, offenders with extensive criminal histories can be expected to recidivate as they are gradually learning and attempting to overcome many years of criminal thinking and behavior (Polaschek & Dixon, 2001; Wong et al., 2012). This idea is further supported by theories of desistance and habit change which suggest that to change one's behavior is a long-term process that occurs gradually over time (Maruna, 2001; Prochaska et al., 1992; Serin, Lloyd, Helmus, Derkzen, & Luong, 2012; Taxman, 2004). Therefore, when evaluating recidivist outcomes, rather than being measured dichotomously, they should be studied as a matter of degree since desistance is a continuing process (Polaschek & Dixon, 2001; Wong et al., 2012). Also, this evaluation should be longitudinal since change takes time and individual changes may not occur until a long period of time has passed following treatment

completion (Maruna, 2001; Prochaska et al., 1992; Serin, Lloyd, Helmus, Derkzen, & Luong, 2012; Taxman, 2004).

While complete desistance of criminal behavior may not be a result of treatment, scholars suggest that a change in antisocial attitudes may decrease the severity of future criminal behavior (Wong et al., 2012). In this study, two assessments were used to measure antisocial attitudes, the Criminal Sentiments Scale-Modified (CSS-M) (Simourd, 1997) and the Pride in Delinquency Scale (PID) (Shields & Whitehall, 1991). Interestingly, although PID scores pre- to post treatment demonstrated a decrease in reoffense severity, as predicted, these findings were not significant. However, it was found that those offenders who were initially violent upon entering the program were more likely to reoffend violently. Further, while the Counter-Point program decreased the amount of antisocial attitudes following treatment completion, a decrease in antisocial attitudes actually increased the severity of a reoffense. Notably, those participants who reported reduced levels of antisocial attitudes, as measured by the CSS-M, were slightly more likely to violently reoffend.

In further understanding these findings, it is first important to recognize why only one (i.e. CSS-M) of the two measures of antisocial attitudes predicted severity of reoffending. Further examination of these two assessments (i.e. CSS-M and PID) reveals the extent to which their measure of the antisocial attitude greatly differs. To begin, the CSS-M is an assessment used to examine the attitude construct based on neutralization theory (Sykes & Matza, 1957; Simourd & Olver, 2002; Walters, 2006c). In exploring the dimensions of the attitude construct, this assessment is focused more on the content of the attitude rather than the process (Simourd, 1997).

As a complement to the CSS-M, the PID scale was developed to assess the process of the attitude, or the degree to which neutralizations are applied to criminal activity (Shields & Whitehall, 1991; Simourd & Van De Ven, 1999) More specifically, it measures the amount of pride or guilt that an offender may feel when engaging in criminal behavior (Simourd & Olver, 2002). However, not all criminals may feel pride or shame when committing a crime. As previously discussed, when offenders face a mismatch between choosing to commit a criminal act while knowing that it is unlawful (Festinger, 1957), they create neutralizations or antisocial attitudes to justify the behavior so that they may be able to relieve the dissonance and commit the act (Sykes & Matza, 1957). Further, "by rendering … dominant norms ineffective, [these] techniques of neutralization protect the individual from self-blame" (Yessine, 2004, p. 13). This helps to explain why the CSS-M rather than the PID was more predictive of severity of reoffending in that due to the neutralizations or antisocial attitudes held by the offenders, the degree of pride or shame experienced from deviant activity may be minimal.

As stated by Kroner and Yessine (2013, p. 322), "those that change the most on antisocial attitudes should have the greatest reductions in recidivism." While the results of this study indicated that antisocial attitudes decreased following treatment completion, those who had less antisocial attitudes were more likely to reoffend violently. Additionally, among those who were classified as violent offenders when entering the program, following treatment completion, they were more likely to reoffend violently. In analyzing these findings, it is important to acknowledge that past behavior predicts future behavior (Aarts, Verplanken, & Van Knippenberg, 1998). Additionally, when applying the RNR model to treatment programming, it is possible that the "risk" principle and "responsivity" principle play an equal role in offender outcomes as it is suggested that adherence to all three principles (i.e. risk, needs, responsivity) is

necessary to reduce recidivism (Andrews et al., 2011) especially among violent offenders (Dowden & Andrews, 2000).

While the "needs" principle is specific to targeting and changing criminogenic needs or antisocial attitudes, the "responsivity" principle focuses on program delivery which takes into account offenders learning styles, cognitive abilities, and what treatment modalities best suited to address the offender's needs (Dowden & Andrews, 2000; Ward, Day, Howells, & Birgden, 2004). As literature has suggested, CBT serves as the one of the most effective treatment modalities in changing offender antisocial attitudes and reducing recidivism (Berman, 2005; Hanson et al., 2009; Clarke et al., 2010; Landenberger & Lipsey, 2005; Lipsey & Landenberger, 2001; Lizama et al., 2014; Shields & Whitehall, 1991). However, other factors representative of the "responsivity" principle such as the counselor and other therapy features can also play a role in treatment outcomes (Ward et al., 2004). The therapeutic alliance or bond between therapist and client is a consistent and significant predictor of offending outcomes (Samstag et al., 1998; Skeem, Eno Louden, Polaschek, & Camp, 2007; Ward et al., 2004). Program integrity is also important in treatment as programs may not be implemented as they were intended (Crites & Taxman, 2013). It is important for a program to be conducted according to its design and that staff are well trained in treatment delivery (Andrews & Dowden, 2005). If implementation fidelity is adhered to, as recommended by the "responsivity" principle, these factors are key aspect of larger treatment outcomes (Andrews & Dowden, 2005; Lipsey & Landenberger, 2005).

Also, central to the RNR model is the "risk" principle which holds that offender risk should be matched with appropriate levels of treatment services (Gourgon & Armstrong, 2005). Where offenders who present more risk should receive a higher degree of treatment services (Dowden & Andrews, 2000; Gourgon & Armstrong, 2005; Sperber et al., 2012), a statement

which is upheld by studies that have found that treatment dosage is related to reductions in recidivist outcomes (Bourgon & Armstrong, 2005; Di Placido et al., 2006; Gordon & Moriarty, 2003; Kroner & Takahashi, 2012; Lipsey et al., 2007). Scholars have coined dosage as the intensity of treatment programming which refers to the amount of hours per session, number of sessions per week, and/or the amount of interpersonal interaction between counselor and client during each session (Kroner & Takahashi, 2012) Additionally, scholars have found that programs that do not adhere to the "risk" principle may fail to reduce recidivism entirely (Lowenkamp, Latessa, & Holsinger, 2006).

When understanding why dosage a significant factor in treatment outcomes, it is important to acknowledge again that desistance following treatment completion is a gradual process which can be understood given that offenders have many years of antisocial attitudes to challenge and dispose of on their path to a life without crime (Wong et al., 2012). That said, reaching a final state of non-offending is a dynamic process in which many personal and sociogenic factors play a role (Bushway et al., 2001).

As stated by various scholars, criminal behavior has its roots in conscious thought and choice (Mandracchia et al., 2007; Walters & White, 1989; Yochelson & Samenow, 1976). According to Azjen and Fishbein's (1980) theory of reasoned action, when deciding whether to engage in a particular behavior, an individual engages in a conscious reasoning process, which is influenced by subjective norms and their attitudes, to determine their behavioral performance. However, when considering criminal behavior, with knowledge of societal norms, a state of cognitive dissonance may be experienced in that the illegal behavior contradicts these ideas (Banse et al., 2013; Festinger, 1957). In order to overcome this barrier to violate the law, it becomes necessary for the individual to find reasons to excuse or justify this behavior (Banse et

al., 2013; Sykes & Matza, 1957). It is these techniques of neutralization, or antisocial attitudes, which allow the individual to proceed with criminal behavior (Sykes & Matza, 1957).

While these antisocial attitudes were created consciously, after repetitive enactment of criminal behavior, these cognitive patterns become automatic wherein engaging in criminal behavior no longer requires conscious thought (Fazio, 1986; Walters, 2014). As mentioned by Walters & White (1989), criminals are lazy in thought and action and put minimal effort in evaluating their thoughts and behaviors. As these attitudes help to serve an offender's chosen behavior, their automaticity frees the offender from engaging in controlled processing when committing a crime (Fazio, 1986). This occurs because as the neutralization or antisocial attitude is continuously paired with criminal behavior, it becomes strengthened and is more easily accessible in one's memory when needed again (Fazio, 1986; Simourd & Olver, 2002).

Therefore, it appears though both controlled and automatic cognitive processes play a role in establishing and maintaining criminal antisocial attitudes and behavior (Fazio, 1986). However, these two processes are involved again when using treatment programs to address automatic antisocial attitudes and in teaching new prosocial ways of thinking. As antisocial attitudes are dynamic and malleable, they can be reduced or eliminated through treatment (Banse et al., 2013). While CBT works to address and change criminogenic thinking, addressing needs alone may not be enough to reduce future recidivism (Kroner & Yessine, 2013).

In a CBT focused treatment program, like Counter-Point, offenders learn how to become more aware of their criminogenic cognitions and are taught new prosocial ways of thinking (Lizama et al., 2014; Voorhis & Salisbury, 2014). Thus, offenders transition from automatic thinking to learning and applying new prosocial thoughts to new behaviors which require conscious and deliberate effort. In order to uphold these new attitudinal changes, Fazio (1986)

holds that the attitude needs to be applied often and directly in order to strengthen the attitude-behavior relationship. By repeatedly pairing new prosocial thoughts with new behaviors, the likelihood will be greater that these new prosocial thoughts will be activated, rather than the old antisocial thoughts, when considering criminal activities (Fazio, 1986).

To strengthen these new prosocial thoughts, CBT utilizes social learning methods of modeling and role-playing to prime these new cognitions with lawful behavior (Lizama et al., 2014; Voorhis & Salisbury, 2014). However, during this process, many offenders in treatment may be experiencing fear of change, making them resistant to these life changes (Walters, 2014). Additionally, they may also be experiencing cognitive dissonance as they are challenging criminogenic thoughts with new prosocial thoughts and behaviors and their sense of freedom may feel threatened (Chambers et al., 2008). This is where the concept of dosage plays an important role in ensuring that these new changes are upheld (Taxman, 2004). Attitude and behavioral change is a long process that requires much time and effort. Therefore, it is important that programs provide treatment services that are frequent and intensive enough to implement and maintain these changes to prevent repetition of old behaviors (Taxman, 2004).

As found in a study by Landenberger and Lipsey (2005), amount and implementation of CBT is significantly correlated with recidivism outcomes. Suggested amount of dosage varies within the literature from 100-200 hours (Bourgon & Armonstrong, 2005) to a maximum of 300 hours depending on the needs of the offender and their level of risk (Gourgon & Armonstrong, 2005) with high risk offenders benefiting from more intensive programs (Polaschek et al., 2005). Generally, treatment effects will be stronger the longer an individual is in treatment (Simpson, Joe, & Brown, 1997; Zerger, 2002).

Policy Implications

As the results demonstrated, while antisocial attitudes decreased following treatment completion, the likelihood of violent re-offending increased. With this in mind, the importance of dosage should not only apply to treatment programming, but should also encourage policy implications for supporting the offender in the community following treatment completion. It is not simply the attitudinal changes in the offender's life that are important as is an investment of these changes in their life following treatment release (Kirkwood, 2016). Changes in both psychological and environmental contexts affect an offender's desistance from future criminal behavior (Kirkwood, 2016; Simourd & Olver, 2002). Embracing a new way of life in which the individual knows little about is challenging and commitment grows with time and experience (Samenow, 2004).

As previously mentioned, when offenders engage in attitudinal change during treatment, they are taught to become aware of their automatic antisocial thinking and then learn how to consciously address and challenge these instinctive thinking patterns with prosocial cognitions (Lizama et al., 2014; Voorhis & Salisbury, 2014). According to Azjen and Fishbein's (1980) theory of planned behavior, in order to engage in behavior, one must have the intention and the perceived ability to do so. Intention refers to the motivational components that influence behavior (Ajzen, 1991). Degree of effort and willingness on the part of the individual will determine how likely they are to perform a given behavior. Additionally, the individual has to believe that they have the opportunities and resources available to engage in the intended behavior which is known as perceived behavioral control. If they do not have this self-efficacy, they will not feel confident in pursuing their desired behavior (Ajzen, 1991) which is necessary

to strengthen the new prosocial attitude-behavior association into becoming an accessible, automatic process (Fazio, 1986).

While internal efforts in therapy and prosocial family members (Kroner & Takahashi, 2012) are useful in beginning the gradual replacement of antisocial attitudes with prosocial thoughts and behaviors, desistance is a gradual process (Wong et al., 2012). It is important during this transition, that society assists these individuals in living prosocially so that they can begin to dissociate from old antisocial influences (i.e. criminal peers, antisocial communities). This takes time, patience, and support from the community in helping these individuals make this steady change (Wong et al., 2012). As stated by Wong and Burt (2007), at the point of reentry when the greatest adjustments have to be made, community support is most critical. This form of dosage in addition to community treatment programs, like Counter-Point, may help to maintain or even accelerate the desistance process (Wong et al., 2012).

During this turning point in forming their new prosocial identities, outcome expectancies and performance accomplishments greatly influence and motivate behavioral change (Chambers et al., 2008; Walters, 2014) and create stability in a new prosocial lifestyle (Kroner et al., 2014). With this in mind, the reentry movement is based on the idea that in order to prevent offenders from going back to prison, it is necessary to provide them with both skill-based services (e.g. job training, treatment, education) and survival needs (e.g. housing, employment, food) to secure new prosocial thoughts and behaviors that were acquired in treatment (Banse et al., 2013). Unfortunately, upon reentry, offenders confront many challenges ranging from limitations on their civil liberties, restrictions to housing and employment, and insufficient services making it difficult to refrain from a criminal lifestyle (Taxman, 2004). Although, it is understood that offenders need treatment to reform their criminal thinking, society has the expectation that upon

release, offenders are fully reformed, negating the fact that change takes time and requires assistance and support from society (Taxman, 2004).

Thus, many offenders go back into the community with little more than what they had when they went to prison (Taxman, 2004). As their experiences upon release play a major role in how they perceive their lives with their newly acquired thoughts and behaviors, these challenges presented by society can have a negative and debilitating impact on treatment gains (Kirkwood, 2016).

As previously mentioned, in Azjen and Fishbein's (1980) theory of planned behavior, in order to enact conscious thoughts into behavior, an individual needs to be motivated as well as feel confident that they are in control of the situation. With this in mind, it is important to note that an individual's reinforcement history can influence what behavioral choices they make, thus positive reinforcement of new prosocial behaviors in the community following treatment is critical (Walters & White, 1989). If an offender is encountering many of the obstacles previously mentioned, this difficulty can influence his confidence and motivation in starting a new prosocial life (Ajzen, 1991). Low self-efficacy resulting from the perceived inability to succeed can prevent the offender from attempting new prosocial behaviors. As aforementioned, in order to strengthen an attitude in making it more accessible, it is necessary that the attitude is directly and repeatedly utilized (Fazio, 1986). If an offender rarely applies his newly learned thoughts and behaviors upon reentry, these weak attitude associations will prevent the new attitudes and behaviors from becoming automatic when encountering the attitude object or when considering criminal activity. Further, by not utilizing newly learned attitudes, prior behavior is much more likely to influence how one perceives their situation and reacts (Fazio, 1986).

In understanding the findings of this study, perhaps a decrease in antisocial attitudes was found to increase the likelihood of violent behavior in that because additional treatment dosage in the form of community support is necessary to aid offenders in upholding a new lifestyle. If this support is lacking, offenders may find it difficult to apply prosocial thoughts and behaviors to their lives and return to criminal activity that has been more useful in helping them meet their desired needs. With that said, it seems as though policy implications should provide for more support to offenders upon reentry which seems to be an effective method of maintaining these prosocial changes. As stated by Taxman (2004, p. 34), "informal community networks and supports have more direct and lasting effects on offender behavior than other informal government and service agencies, such as law enforcement, corrections, and treatment programs." As empirical research supports this idea that community aftercare significantly improves treatment outcomes (Lizama et al, 2014; Sperber, Latessa, & Makarios, 2012, p. 346), "investing resources, increas[ing] dosage, and intensive programming is money well spent" in reducing a criminal threat to society following reentry as well as helping offenders to maintain a new prosocial lifestyle. In light of the results of this study, as well as the empirical literature, policy makers and practitioners should ensure that, in addition to treatment, reentry services are in place and implemented successfully. This will undoubtedly require that additional resources are pooled towards the tail-end of an inmate's sentence to encourage positive adjustment and access to community resources and aid.

Limitations and Future Research

While these findings are notable, this study was conducted using a small sample size of offenders completing a community treatment program (n=216) and an even smaller subsample of completers who recidivated (n=78). Further, this was an all-male, mostly white (78.7%) sample

of offenders in Canada, so results may not be generalizable to all offenders of a different race, gender, or nationality.

While this study only focused on addressing antisocial attitudes within a treatment program, other aspects of treatment (i.e. risk, dosage, implementation, ect.) which were not measured, may have a significant effect on treatment outcomes as well. Future research should further investigate these additional factors of treatment implementation and aftercare that may reduce recidivist behaviors (Lowenkamp et al., 2006). Additionally, it has been suggested in this study, that recidivist outcomes may be mitigated by treatment dosage. Empirical study that further examines treatment dosage amounts specifically may provide more insight as to its effects on attitudinal change (Lowenkamp et al., 2006; Kroner & Takahashi, 2012) as degree of treatment dosage is not a one size fits all and differs according to offender risks and needs (Gourgon & Armstong, 2005). This notion is supported by research that has suggested that high risk offenders require longer treatment length (Polascheck & Dixon, 2001).

However, scholars have also noted that not all intervention components will play the same role in treatment outcomes for every individual (Bushway et al., 2001). With that said, the findings of this study were limited in that they only examined the offender's initial reoffense. By only examining a period of time in which an instance of recidivism occurred, the implications of this study may be limited in that they are not taking into account attitudinal change and dosage effects across time. This highlights the need for longitudinal research when examining offender pathways of desistance, as time is predictive of recidivism (Harris & Rice, 2007). Future studies that take into account attitudinal change, dosage effects, and these components at each time of reoffense may provide a more in depth understanding of how these factors mitigate offender change following treatment release.

Conclusion

Implementation of the Risk, Need, Responsivity (RNR) model has been empirically supported as a key model in reducing antisocial attitudes and recidivism among offenders (Berman, 2005; Hanson et al., 2009; Clarke et al., , 2010; Cortoni et al., 2006; Polaschek, 2010; Polascheck & Dixon, 2001; Polaschek, Wilson et al., 2005; Ronan et al., 2010; Wong et al., 2012). However, further research is warranted in determining the primary mechanism in programs implementing this model that result in offender prosocial change (Landenberger & Lipsey, 2005). The purpose of this study was to examine whether antisocial attitude change within an RNR based community treatment program would significantly predict recidivism, violent reoffense, and severity of a reoffense (i.e. violent or nonviolent), as attitudes are key predictors of behavior (Ajzen, 1991; Ajzen & Fishbein, 1980; Fazio, 1986).

Although antisocial attitudes decreased following treatment completion, these changes did not predict general recidivism or violent reoffending among the sample. However, two notable findings were that among those offenders who were initially classified as violent upon entering the treatment program, these individuals were more likely to reoffend violently after program completion. Further, a decrease in antisocial attitudes following treatment completion increased the severity of reoffending. These findings can be explained by the fact that past behavior predicts future behavior (Aarts et al., 1998) and change takes time (Bushway et al., 2001; Kroner & Yessine, 2013). For this reason, treatment dosage may help to explain why a decrease in antisocial attitudes is associated with an increase in violent offending in that perhaps this program in particular did not have enough intensity or duration of programming. However, dosage may also apply to community support in order to assist the offender in upholding new life changes suggesting a need to re-entry policy implications that may provide the additional

quantity of resources and support to uphold a crime-fee lifestyle. Additionally, future research should also examine the longitudinal effects of attitude change as well as the effects of other factors of treatment that may mitigate recidivist outcomes.

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