

COPING STYLE AS A MEDIATOR TO THE INFLUENCE OF
EMOTIONAL INTELLIGENCE ON SELF-ESTEEM
AND ANXIETY FOR JUVENILE
DELINQUENT MALES

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CHAPTER I

INTRODUCTION

Research shows that emotional factors such as anxiety and low self-esteem are associated with juvenile delinquent behavior (Agnew, 1992; Donnellan, Trzesniewski, Robins, Moffitt, & Caspi, 2005). Within some experimental models, the emotional factors of anxiety and self-esteem are considered to be a contributing factor to delinquent behavior (Agnew, 1992; Hirschi, 1969). Furthermore, many of the problems associated with these emotional influences are often related to the use of maladaptive coping strategies under stressful situations (Hussong & Chassin, 2004).

Emotional intelligence (EI) represents an individual's skill or ability to perceive, understand, and utilize affective information in order to exert control over his or her emotional life (Salovey, Bedell, Detweiler, & Mayer, 2008). Research demonstrates a relationship between higher emotional intelligence and higher self-esteem (Fernandez-Berrocal, 2006) and a relationship between higher emotional intelligence and less anxiety (Fernandez-Berrocal, 2005; Salovey, 2001) yet, it is unclear what mediating effect coping strategies may play on these relationships. Furthermore, although previous research has demonstrated the influence of maladaptive coping strategies on self-esteem and levels of anxiety (Feldman & Elliot, 1990; Gould, Welting, Kleinman, Lucas, Thomas & Chung,

2004), little research exists examining the influence of these strategies within a juvenile delinquent population. Essential to the similar relationships discovered in the literature between self-esteem and anxiety to both emotional intelligence and specific coping styles, is the potential for emotional intelligence to influence the use of specific coping styles. Therefore, this study examined the mediating influence of coping styles on the relationship between emotional intelligence with both self-esteem and anxiety within an adolescent population of juvenile delinquent males.

Extensive studies examining the relationship between self-esteem and delinquency have demonstrated that engagement in delinquent behavior is associated with low self-esteem (Donnellan et al., 2005; Fergusson & Horwood, 2002; Rosenberg, Schooler, & Schoenbach, 1989). While some researchers have contested this finding with a suggestion that unrealistically high self-esteem is positively correlated with aggression and delinquency (Baumeister, Smart, & Boden, 1996), this disagreement ultimately seems to hinge on a differing conceptualization of self-esteem. One side of the argument is that increasing levels of self-esteem represent a healthy self-regard and the other side of the argument is that self-esteem is viewed on a continuum between low self-esteem and narcissism. Donnellan et al. (2005) found that it is possible to draw a distinction between healthy self-regard and narcissistic self-views. Their studies indicated that the effect of low self-esteem on aggression and externalizing behaviors was independent of narcissism and when healthy self-regard was disentangled from narcissism, the relation between low self-esteem and aggression became even stronger.

Research regarding the relationship between anxiety and delinquency has resulted in mixed results. A large portion of this literature seems to be directed at the empirical analysis

of Agnew's (1992) general strain theory, in which he posits that an individual will experience a negative emotion ranging from depression to anxiety to despair whenever an experience of strain is encountered. However, studies indicating that anxiety and deviance do not significantly correlate tend to focus only on situations of anxiety as a stand-alone response to a specific strain (Aseltine, Gore, & Gordon, 2000). The measure and identification of anxiety in situations where anger represents a separate response to the specific strain seems predisposed to exclude anxiety from strong correlations with deviant behavior. These studies seem to view anger and anxiety as completely separate types of emotional response and therefore treat them as separate predictors of deviant behaviors. On the other hand, when anxiety and anger are viewed as linked affective states that create internal pressure for corrective action, one can quickly recognize that anxiety may often be masked by the more overt manifestations of anger (Agnew, 1992).

The results of research from the Economic and Social Research Council (2008) indicates that increased anxiety can have significant consequences on cognitive processing and consequently, a youth's ability to remain engaged within academic settings. These researchers found that anxious individuals find it harder to avoid distractions and take more time to turn their attention from one task to the next. Similarly, Byrne (2000) showed that adolescents who have higher anxiety levels have a greater number of disruptive behaviors and lower self-concept.

Research in the area of coping strategies may provide further understanding of self-esteem and anxiety in adolescence, because adequate coping in this phase of development predicts good future adjustment and health outcomes (Feldman & Elliot, 1990; Gould et al., 2004). Two main categories of problem-focused and emotion-focused have been used to

summarize the function of coping (Rijavec & Brdar, 2002). Problem-focused coping strategies refer to a “task” orientation and involve cognitive and behavioral efforts aimed at solving or minimizing the effects of the stressful situation. Emotion-focused coping strategies refer to a “person” orientation and involve cognitive and behavioral efforts to manage emotional discomfort (Moos, 1993; Endler & Parker, 1999). On the basis of continued empirical research (Endler and Parker, 1990; 1999) a third basic coping strategy of avoidance is suggested. Avoidance-focused coping can include task-oriented strategies, where one engages in distraction by focusing on another task such as watching television, and it can include person-oriented strategies, where one engages in social diversion (Endler & Parker, 1999). Studies have found that in response to stressful situations, adolescents’ use of approach coping strategies is associated with fewer negative outcomes than avoidance coping strategies (Moos, 1993).

Emotional Intelligence

In recent decades, a consistent view has emerged suggesting that affective phenomena constitute a unique source of information about the surrounding environment. This emotional information can inform the thoughts, actions, and subsequent feelings (Salovey et al., 2008). Since individuals differ in their ability to perceive, understand, and utilize this emotional information, many have begun to refer to such differences as emotional intelligence (EI), which is considered to substantially contribute to an individual’s psychological well-being (Salovey & Mayer, 1990). While different pioneers of the field seem to view emotional intelligence differently, as either a spectrum of abilities, or a mix of abilities and personality characteristics (Bar On, 1997; Goleman, 1995; Mayer & Salovey, 1997), they generally agree that the emotional intelligence construct could provide a

framework for identification of the skills needed to adaptively experience and understand emotions. Therefore, emotional intelligence is now recognized to have particular relevance in emotional regulation and overall development (Chan, 2005).

Recent research has revealed that there is a significant relationship between emotional intelligence and self-esteem. Babu (2008) found that increases in the emotional intelligence of teachers in training marked a significant corresponding increase in self-esteem. Similarly, Salovey et al. (2002) found that individuals reporting greater emotional clarity and greater ability to repair their own emotional states, also report higher levels of self esteem. Other research has also indicated that individuals who report an inability to regulate their own emotional states show poor emotional adjustment on a number of measures including anxiety (Fernandez-Berrocal et al., 2005; Salovey, 2001). Fernandez-Berrocal et al. (2006) found that adolescent reporting higher ability to discriminate clearly among feelings and to regulate emotional states showed less anxiety.

Background to the Problem

Juvenile delinquency refers to the behavior of children or minors that is in violation of the law and is therefore subject to legal or criminal action (Agnes, 1996). It is a serious and growing problem that adversely affects communities of every socioeconomic status across the United States. In 2003, nearly 2.2 million juveniles were arrested, accounting for 16% of all arrests and 15% of all violent criminal offenses (Katsiyannis & Ryan, 2008). The proportion of arrests sent to juvenile court increased from 58% in 1980 to 71% in 2003 (Snyder, 2005). Furthermore, juvenile delinquency has a serious effect on the economy. According to Snyder and Sickmund (1999), an average chronic offender costs society between \$1.3 and \$1.5 million in victim and criminal justice costs, along with lost

productivity over a 10-year period (Katsiyannis & Ryan, 2008). Therefore, efforts to identify factors that influence outcome variables associated with juvenile delinquency have been of interest to researchers for many decades, and the current investigation of the mediating effect of coping style on the influence of emotional intelligence on self-esteem and anxiety among this population may lead to both the recognition of potential treatment targets as well as an increased understanding of this population.

Understanding the factors associated with the emotional intelligence of youth in juvenile delinquency correctional programs is important for a number of reasons. First, the concept of emotional intelligence suggests an ability to understand and effectively express one's emotions, recognize the emotions of others, and to engage in emotional regulation. All of these abilities seem to constitute the underpinnings of what many refer to as pro-social behavior. Poor social interactions leads to a lack of social connectedness within both the school and community environment, and contributes to behavior problems which may lead to disciplinary exclusions, school failure, and drop out, thus perpetuating the problems associated with delinquency (Krezmien et al., 2008). Secondly, the BarOn model of emotional intelligence suggests that individuals who possess emotional intelligence are able to actualize their capacities in a productive manner, and the very nature of engaging in delinquent behavior would seem to suggest an abandonment of this pursuit. Finally, since previous research has demonstrated a relationship between delinquency and both self-esteem and anxiety, while other lines of research have demonstrated a relationship emotional intelligence and both self-esteem and anxiety, the combined results would suggest that juvenile delinquents may exhibit low levels of emotional intelligence. Therefore, this study

will examine the influence of emotional intelligence on self-esteem and anxiety within a population of juvenile delinquent males.

Furthermore, since the problems associated with anxiety and low self-esteem have been shown to be related to the use of maladaptive coping strategies, it would seem to suggest that juvenile delinquents may demonstrate a tendency to utilize less adaptive coping strategies. Therefore, this study will further examine the mediating effect of coping style on the influence of emotional intelligence on self-esteem and anxiety within this population. The identification of potential mediating variables may provide researchers with a better understanding of this population and aid with the identification of potential treatment targets.

Statement of the Problem

Research has previously demonstrated that emotional factors such as anxiety and low self-esteem are associated with delinquent behavior (Agnew, 1992; Byrne, 2000; Donnellan et al., 2005). Additionally, recent interest in the field of emotional intelligence has led to a consistent view that individuals differ in skill or ability to perceive, understand, and utilize affective information, and that these skills are directly associated with the individual's ability to exert control over his or her emotional life. Since the ability to regulate emotional influences such as self-esteem and anxiety seems to be directly related to the skills encompassed within emotional intelligence, it would seem to suggest that emotional intelligence influences self-esteem and anxiety, and that juvenile delinquents may be deficient in the specific skills needed to engage in adaptive emotional regulation. Therefore, additional research examining the influence of emotional intelligence on self-esteem and anxiety, within a population of juvenile delinquent males may provide a significant contribution to our understanding of this population, and the role of emotional intelligence.

Furthermore, existing literature demonstrates both the negative influence of maladaptive coping strategies on self-esteem and anxiety (Feldman & Elliot, 1990; Gould et al., 2004) as well as a relationship between anxiety and self-esteem with emotional intelligence (Fernandez-Berrocal et al., 2006; Salovey, 2001), however very little research exists examining the mediating effect of coping strategies on these relationships, particularly within the juvenile delinquent population. In other words, further insight may be obtained by identifying the effects of coping style on the influence of emotional intelligence on self-esteem and anxiety, and this may provide both a better understanding of the juvenile delinquent population as well as aid in the identification of potential treatment targets. Therefore this study examined the mediating effect of coping style on the influence of emotional intelligence on self-esteem and anxiety within an adolescent population of juvenile delinquents.

Theoretical Framework

The theoretical framework for this study is emotional intelligence as defined by BarOn (1997). According to the BarOn model, emotionally intelligent people are able to recognize and express their emotions, possess positive self-regard, and actualize their potential capacities to lead fairly happy lives. They are able to understand the way others feel and are capable of making and maintaining mutually satisfying and responsible interpersonal relationships, without becoming dependent on others. These people are generally optimistic, flexible, realistic, and successful in solving problems and coping with stress, without losing control (BarOn & Parker, 2000). Taken together, this would seem to suggest that emotionally intelligent people are more likely to engage in adaptive styles of coping, which leads to an

increase in self-esteem and a decrease in anxiety, thus decreasing the likelihood of experiencing the emotional problems associated with juvenile delinquency.

Purpose of the Study

The purpose of this study was to determine the mediating effect of coping styles (CS), as defined by the *Coping Inventory for Stressful Situations* (Endler & Parker, 1999) on the influence of emotional intelligence (EI), as defined by the *BarOn Emotional Quotient-inventory: Youth Version* (BarOn & Parker, 2000), on self-esteem (SE), as defined by the *Children's Depression Inventory* (Kovacs, 2003) and anxiety (ANX), as defined by the *Multidimensional Anxiety Scale for Children* (March, 1997), for juvenile delinquent males. Additionally, the relations between this variable set were explored. Figures 1 and 2 provide an illustration of the mediation models that will be analyzed within the study.

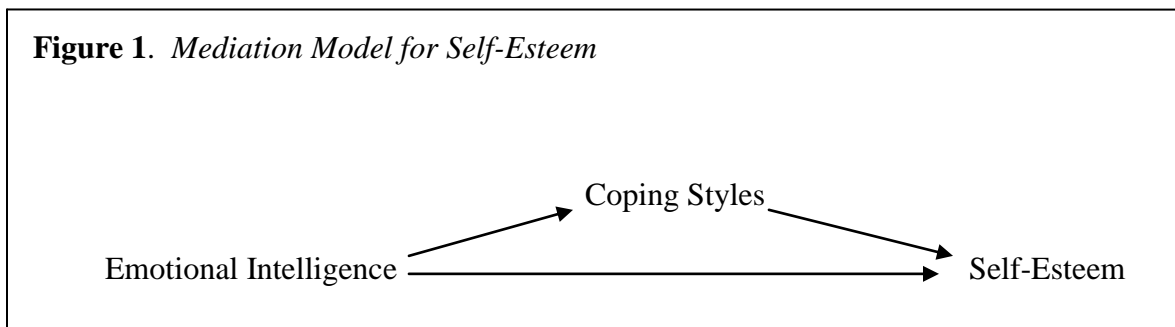
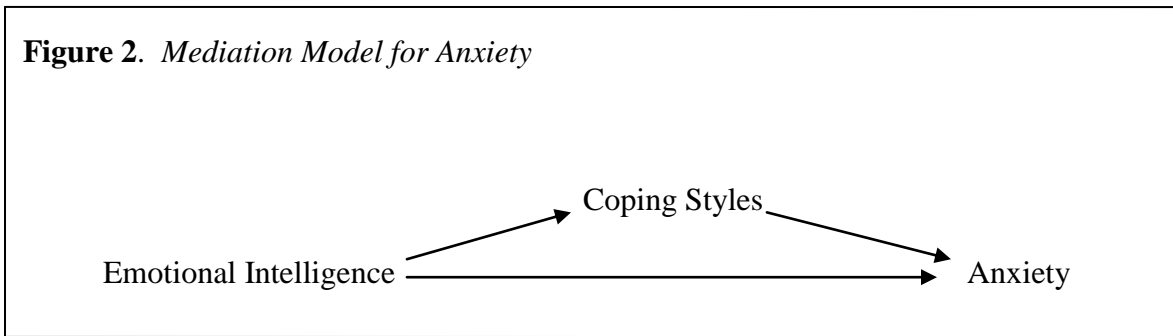


Figure 1 presents a diagram demonstrating the assumptions of the 1st mediation model. The model predicts that self esteem is a function of both emotional intelligence and coping styles. The model also presents self-esteem as a function of emotional intelligence working through coping styles.

Figure 2. *Mediation Model for Anxiety*



Similarly, Figure 2 presents a diagram demonstrating the prediction that anxiety is a function of both emotional intelligence and coping styles, as well as a function of emotional intelligence working through coping styles.

Research Questions

(1) What are the inter-relations of self-esteem, anxiety, emotional intelligence and coping styles within a population of juvenile delinquent males?

H1: There are significant relations between self-esteem, anxiety, emotional intelligence and each of the separate task-oriented, emotion-oriented, and avoidance-oriented coping styles for juvenile delinquent males.

(2) Does coping style mediate the influence of EI on self-esteem for juvenile delinquent males?

H2: Task-oriented coping has a significant mediating effect on the influence of emotional intelligence on self-esteem for juvenile delinquent males.

H3: Emotion-Oriented coping has a significant mediating effect on the influence of emotional intelligence on self-esteem for juvenile delinquent males.

H4: Avoidance-Oriented coping has a significant mediating effect on the influence of emotional intelligence on self-esteem for juvenile delinquent males.

(3) Does coping style mediate the influence of EI on anxiety for juvenile delinquent males?

H5: Task-oriented coping has a significant mediating effect on the influence of emotional intelligence on anxiety for juvenile delinquent males.

H6: Emotion-Oriented coping has a significant mediating effect on the influence of emotional intelligence on anxiety for juvenile delinquent males.

H7: Avoidance-Oriented coping has a significant mediating effect on the influence of emotional intelligence on anxiety for juvenile delinquent males.

Significance of the Study

The problems associated with juvenile delinquency have very serious and often long-term effects on both the individuals who engage in delinquent behavior as well as the communities and society at large. Previous research has demonstrated that emotional factors such as anxiety and self-esteem are associated with juvenile delinquent behavior (Agnew, 1992; Byrne, 2000; Donnellan et al., 2005).

Other lines of research have reported a strong relationship between emotional intelligence and self-esteem (Salovey et al., 2002) as well as a strong inverse relationship between emotional intelligence and anxiety (Fernandez-Berrocal et al., 2006; Salovey, 2001), and have recognized that adolescents reporting a higher ability to regulate emotional states showed improvement within both factors (Fernandez-Berrocal et al., 2006).

Taken together, these two lines of research suggest that juvenile delinquents may have greater difficulty with emotional regulation, which is central to the concept of emotional intelligence (EI) as conceptualized by the BarOn model. Therefore, the possible identification of potential mediating effects of coping styles may provide researchers with not

only a better understanding of this population but may also help to identify potential treatment targets.

Furthermore, this research will attempt to provide more balance to the overall literature investigating the relationships between self-esteem, anxiety and emotional intelligence, by specifically utilizing a sample of delinquent males within the adolescent population.

Definition of Terms

- 1) Anxiety: apprehensive anticipation of future danger or misfortune accompanied by a feeling of dysphoria or somatic symptoms of tension (DSM-IV-TR; APA, 2000).
- 2) Coping: a response or set of responses to stressful or negative events that usually involves conscious strategies or styles on the part of the individual (Endler & Parker, 1999)
- 3) Coping skills: cognitive and behavioral tools used to offset or overcome adversity, disadvantage, or disability without eliminating the underlying condition.
- 4) Coping strategies: thoughts and behaviors that are used to manage or cope with stressful situations, in order to reduce or tolerate the stress.
- 5) Coping style: a characteristic or typical manner of confronting a stressful situation and dealing with it (Folkman & Lazarus, 1985)
- 6) Correlation: concomitant variation between two variables in such a way that change in one is associated with change in the other (Chaplin, 1985).
- 7) Emotion: an aroused state involving conscious, visceral, and behavioral changes (Chaplin, 1985).

- 8) Emotional Intelligence: (in general) refers to the potential, ability, or competence to feel, use, communicate, recognize, remember, describe, identify, learn from, manage, understand, and explain emotions, in a manner that promotes adaptive growth.
- 9) Juvenile delinquency: refers to antisocial or illegal behavior by minors that subject to legal action (Agnes, 1996).
- 10) Mediating variable: a variable that represents the mechanism through which the independent variable influences the dependent variable (Baron & Kenny, 1986).
- 11) Placement: the forced attendance of a juvenile delinquent to a facility designed to promote delinquency prevention and treatment.
- 12) Self-Esteem: the global evaluative dimension of the self, referring to as an individual's perception of his or her self-worth (Santrock, 2008).

Limitations

First, because emotional intelligence (EI) is a relatively new construct that has generated a heightened level of interest over the past decade within both the scientific community as well as the lay public, many researchers have simultaneously begun to pursue both an accurate conceptualization of the construct as well as a valid measure of their own conceptualization. This has led to a number of different conceptualizations of EI simultaneously appearing in the literature, which has often created a mixture of confusion and controversy regarding the best approach to defining and measuring this construct (BarOn, 2006). Therefore, the selection of one specific model and assessment within this study, may likely lead to criticisms from many regarding the specific model and conceptualization chosen.

Second, although this study will attempt to provide more balance to the overall literature regarding the relationship between anxiety, self-esteem, and emotional intelligence by specifically focusing on a population of adolescents, the findings cannot be generalized to the regular population of adolescents. The population sampled was that of male juvenile delinquent youth who were placed in the custody of the Office of Juvenile Affairs (OJA) in Oklahoma. Therefore, any results indicating a specific relationship between emotional intelligence and other factors will need to be determined in future research on general populations of adolescents.

CHAPTER II

REVIEW OF RELEVANT LITERATURE

The purpose of this study was to determine the mediating effect of coping styles (CS, as defined by the *Coping Inventory for Stressful Situations*) on the influence of emotional intelligence (EI, as defined by the *BarOn Emotional Quotient-inventory: Youth Version*), on self-esteem (SE, as defined by the *Children's Depression Inventory*) and anxiety (ANX, as defined by the *Multidimensional Anxiety Scale for Children*), for juvenile delinquent males. Additionally, relations within this variable set were explored.

Literature related to the purpose of this study will be reviewed to examine the relationship and significance of each variable to the problems associated with juvenile delinquency. Next, the primary empirical models of emotional intelligence will be reviewed in order to establish a foundation for the overall concept of emotional intelligence as well as the specific model utilized within the study. Lastly, literature examining the relationships between emotional intelligence and both anxiety and self-esteem will be reviewed.

Juvenile Delinquency

Research indicates that juvenile delinquency is a serious and growing problem in the United States, and that a substantial relationship exists between youth diagnosed with

an emotional or behavioral disorder and juvenile delinquency (Johnson-Reid, Williams, & Webster, 2001). Data from the U.S. Department of Education, Office of Special Education Programs (OSEP) indicate that adolescents with an emotional disturbance accounted for 42% of those incarcerated in 1996. Two commonly studied factors associated with overall emotional well-being are anxiety and self-esteem. The identified effects of each of these important attributes provide us with many examples of this relationship. Furthermore, many of the problems associated with these emotional factors are often related to the use of negative or maladaptive coping strategies under stressful situations and have an impact on the overall psychosocial adjustment of children and adolescents (Hussong & Chassin, 2004). Given the recent interest by researchers in the emotional intelligence (EI) construct, and the essential assumption shared by those who pioneer the field that emotional intelligence contributes to an individual's growth and well-being, this study attempted attempt to identify the mediating effect of coping styles on the relationship between anxiety and self-esteem to emotional intelligence, within a juvenile delinquent population.

Anxiety

Anxiety is a negative mood state that occurs in anticipation of a perceived threat (Barlow, 1991). Theory and research suggest that a high level of anxiety creates internal pressure for corrective action, and that delinquent behavior is one possible response within these situations. Consequently, there is a link between high anxiety and delinquent behavior, because deviant or criminal acts may be used if youths see them as providing an alternate means to get what they want, or as a means to reduce or escape the negative emotions (Agnew, 1992).

Research has indicated that highly anxious adolescents engage in more problem behavior, are more disliked by their peers, and have poorer self-concepts as compared with less anxious adolescents (Byrne, 2000). Research regarding the relationship between emotional disturbance and delinquency seems to provide further support to this view. Johnson-Reid et al., (2001) found that the rate of emotional disturbance within incarcerated youth in California was about seven times that of the normative population within the state.

Cross sectional studies have also identified links between elevated levels of anxiety and impaired social functioning (Fordham & Stevenson-Hindle, 1999; Langley et al., 2004). Children and adolescents who are highly anxious may avoid peer interaction, or may act in a less competent manner when around peers because of a preoccupation with potential threats and an inability to focus on the social cues at hand.

In a longitudinal study conducted by Jeff Wood (2006), the direction of this relationship was identified where reductions in anxiety over the course of an intervention predicted improvements in both child and parent ratings of social functioning. An implication of the study was that adolescent's social functioning can be improved through a reduction in their level of anxiety, and these findings seem to support theories which consider anxiety as a factor which undermines an adolescent's pro-social functioning.

Furthermore, research has indicated that older children and adolescents with anxiety disorders are at increased risk for leaving school prematurely as compared to the general population (Kessler, Foster, Saunders, & Stang, 1995). While there are many factors that determine whether or not a high school student will drop out, the influence of anxiety may be an important determinant. In a study conducted by Kessler et al. (1995),

the researchers reported that 14.2% of high school dropouts had a psychiatric disorder, and that conduct disorder was the most important psychiatric determinant for males who drop out, while anxiety disorders were the most important psychiatric determinant of dropping out for females. While conduct disorder may appear to be completely separate and unrelated to anxiety it is important to consider that behaviors associated with the diagnostic criteria of conduct disorder, may in fact represent the escape behaviors referred to by Agnew (1992), which result from the initial emotional state creating pressure for corrective action.

Self-Esteem

The identified relationships with self-esteem provide us with further evidence of the negative influence of emotional problems on all aspects of a child or adolescent's life. Self-esteem is often defined as the global evaluative dimension of one's self (Santrock, 2008). "Self-esteem is a general personality characteristic; not a momentary attitude or an attitude specific to individual situations. Self-esteem is a personal judgment of worthiness" (Pervin, 1985). "Self-esteem is appreciating one's own worth and importance and having the character to be accountable for oneself and to act responsibly towards others" (Podesta, 2001). Self-esteem is distinct from conceitedness or narcissism, because the focus is on the valuing of oneself, as he or she truly is.

Research demonstrates a consistent negative correlation between self-esteem and delinquency, even when delinquency was divided into aggression and non-aggression types of delinquent behavior (Donnellan et al., 2005). These researchers also found that self-esteem was negatively correlated with parent and teacher reports of externalizing

behavior, where individuals with low self esteem were more likely to engage in antisocial behaviors, as reported by both parents and teachers.

Coping Styles

Coping in adolescence is a particularly relevant concept to health because adequate coping in this developmental phase predicts good future outcomes. Some studies have reported a positive relationship between maladaptive coping strategies and different emotional disorders (Endler & Parker, 1990). Seiffge-Krenke (2000) observed that children and adolescents with pathological behaviors use maladaptive coping strategies, which in the future can increase their pathological behaviors, which often results in a vicious cycle. Therefore, it is important to examine the coping strategies that children and adolescents use in order to deal with stress, considering that coping can be a key issue in understanding successful performances under stressful events (Hussong & Chassin, 2004).

Research has shown that approach or active coping strategies are associated with better adjustment and health outcomes (Feldman & Elliot, 1990). Alternatively, maladaptive coping strategies have been viewed as a precipitating factor not only in anxiety and self-esteem but also in self destructive behaviors in adolescents (Evans, Hawton, & Rodham, 2005). Steiner et al. (2002) reported that avoidance coping correlated positively with indicators of health problems and health risk behaviors. Compas et al. (2001) suggests that during adolescence, coping skills significantly affect an individual's psychosocial functioning. Adolescence is recognized as a time of rapid change and transition that can be stressful and difficult, and which draws upon all of one's resources. Therefore, it is not surprising that coping skills are predictably related to

emotional problems like anxiety and low self-esteem in adolescents (Holahan & Moos, 1991; Moos, 1993).

Emotional Intelligence

Given the consistent view within the field of emotional intelligence (EI) that affective phenomena represent a unique source of information, and that emotional intelligence (EI) represents one's level of skill in the use of this information to inform thoughts, actions, and subsequent feelings, it is not surprising that various instruments have been developed in an attempt to measure this construct (Salovey, Detweiler-Bedell, Detweiler-Bedell, & Mayer, 2008). This shared assumption of emotional intelligence would appear to suggest that individual differences in emotional intelligence (EI) may account for individual differences in the use of coping skills, as well as individual differences in anxiety, self-esteem, and delinquent behavior. If such relationships are identified, emotional intelligence (EI) may further provide direction for interventions targeting such factors.

The concept of emotional intelligence has captured considerable public interest due to its popularization in several recent books (e.g., Goleman, 1995) and articles that have appeared in the lay press. In the scientific literature however, the basic components of this construct were elaborated over a decade ago, with precursors that extend back to the beginning of the twentieth century (Salovey & Mayer, 1990). The general concept of emotional intelligence (EI) has distant roots that can be traced back to Thorndike's (1920) concept of "social intelligence" which he used to refer to an ability to understand and manage people, and to act wisely in human relations. The more recent roots of this concept of emotional intelligence (EI) can be found in Gardner's (1983) theory of

multiple intelligences, and more specifically, in his concepts of interpersonal and intrapersonal intelligence (Petrides et. al., 2002).

Research of emotions and the concept of Emotional Intelligence have proliferated over the past few decades. Currently within the community of researchers interested in furthering the study of this domain, there seems to be a consistent view that affective phenomena constitute a unique source of information for individuals about their surrounding environment and prospects, and this information informs their thoughts, actions, and subsequent feelings (Salovey, Detweiler-Bedell, Detweiler-Bedell, & Mayer, 2008). The essential assumption of the Salovey and Mayer, as well as many others who pioneer this field of study, is that individual's differ in how skilled they are at perceiving, understanding, regulating, and utilizing this emotional information, and that a person's level of "emotional intelligence" contributes substantially to his or her intellectual and emotional well-being and growth. (Salovey, Detweiler-Bedell, Detweiler-Bedell, & Mayer, 2008).

Emotional Intelligence was popularized by Daniel Goleman's 1995 best-selling book, *Emotional Intelligence*. The book described emotional intelligence as a mix of skills, such as awareness of emotions; traits, such as persistence and zeal; and good behavior (Cobb & Mayer, 2000). The introduction of this book led to many mass-market books, articles, and television programs that made grand suggestions of the influences of such intelligence. Emotional Intelligence, according to Time magazine, "may be the best predictor of success in life." According to the book *Emotional Intelligence*, evidence suggests that it is "as powerful, and at times more powerful, than IQ," and provides "an advantage in any domain of life" (Mayer, 1999). This type of popularization of emotional

intelligence has led to the concept becoming a product of two worlds. One is the popular culture world of such best-selling books, and magazine articles previously described. The other is the world of scientific journals, book chapters, and peer reviews (Mayer, 1999). This review will maintain a scientific focus in the exploration of the emotional intelligence concept, and will attempt to describe the different models that have been used to describe the concept, as well as the assessments that are used to measure the concept in accordance with such models.

While the author Daniel Goleman seems to have enthusiastically endorsed the potential predictive value of emotion intelligence, the primary authors of the “ability model” have made no such claims. Rather, the ability version emphasizes that emotional intelligence exists. Two models of emotional intelligence thus developed. The first, the “ability model”, defines emotional intelligence as a set of abilities and makes claims about the importance of emotional information and the actual uses of reasoning well with that information. The second will be referred to as the “mixed model”. It mixes emotional intelligence as an ability; with social competencies, traits, and behaviors, and makes claims about the success that this intelligence leads to (Cobb & Mayer, 2000).

Ability Model of Emotional Intelligence

The contemporary view that emotions convey information about relationships suggests that emotions and intelligence work hand-in-hand. Emotional intelligence refers in part to an ability to recognize the meanings of emotional patterns and to reason and solve problems on the basis of them (Mayer & Salovey, 1997; Mayer, Salovey, & Caruso, 2000).

The mental ability model of emotional intelligence makes predictions about the internal structure of the intelligence and also its implications for a person's life. The theory predicts that emotional intelligence is an intelligence, and like other intelligences, it will meet three empirical criteria. First, mental problems have right or wrong answers, as assessed by the convergence of alternative scoring methods. Second, the measured scores correlate with other measures of mental ability as well as with self-reported empathy. Third, the absolute ability level rises with age (Mayer, Salovey, & Caruso, 2000).

Mixed Models of Emotional Intelligence

Mixed models of emotional intelligence are substantially different than the mental ability models. Although these models set out a mental ability conception of emotional intelligence, they also incorporate personality characteristics that might accompany such intelligence. These models seem to expand the meaning of emotional intelligence by explicitly mixing in non-ability traits. For example, BarOn's (1997) model of emotional intelligence was intended to answer the question "Why are some individuals more able to succeed in life than others?" Bar-On reviewed the psychological literature for personality characteristics that appeared related to life success and identified five broad areas of functioning relevant to success. These characteristics include: (a) intrapersonal skills, (b) interpersonal skills, (c) adaptability, (d) stress management, and (e) general mood (Mayer, Salovey, & Caruso, 2000).

BarOn offered the following rationale for his use of the term emotional intelligence:

Intelligence describes the aggregate of abilities, competencies, and skills that represent a collection of knowledge used to cope with life effectively. The

adjective *emotional* is employed to emphasize that this specific type of intelligence differs from cognitive intelligence...(BarOn, 1997, p. 15).

BarOn's theoretical work combines what may qualify as mental abilities, with other characteristics that are considered separable from mental ability, such as personal independence, self-regard, and mood; and this makes it a mixed model. Despite the breadth of his model, BarOn (1997) is relatively cautious in his claims for his model of emotional intelligence. Although his model predicts success, this success is "the end product of that which one strives to achieve and accomplish..." Moreover, his emotional Quotient Inventory (EQi) relates to "the potential to succeed rather than success itself." At a broader level, he believes that EQ, along with IQ, can provide a more balanced picture of a person's general intelligence (Bar-On, 1997, p. 19; Mayer, Salovey, & Caruso, 2000).

A third view of emotional intelligence was popularized by Daniel Goleman, and was previously discussed regarding its influence on popular media. This view will now be further analyzed in order to allow comparison of the model from a scientific point of view. Goleman created a model that also was mixed and was characterized by the five broad areas of (a) knowing one's emotions, (b) managing emotions, (c) motivating oneself, (d) recognizing emotions in others, and (e) handling relationships. Goleman recognized that he was moving from emotional intelligence to something far broader. He states that "ego-resilience ... is quite similar to his model of emotional intelligence" in that it includes social (and emotional) competencies (Goleman, 1995, p. 285). He goes so far as to note that, "There is an old fashioned word for the body of skills that emotional

intelligence represents: *character*.” (Goleman, 1995, p. 285) (Mayer, Salovey, & Caruso, 2000).

There are both mental ability models and mixed models of emotional intelligence. The mental ability model focuses on emotions themselves and their interactions with thought (Mayer & Salovey, 1997; Salovey & Mayer, 1990). The mixed models treat mental abilities and a variety of other characteristics such as motivation, states of consciousness, and social activity as a single activity (Bar-On, 1997; Goleman, 1995; Mayer, Salovey, & Caruso, 2000).

The Measurement of Emotional Intelligence

Mental ability models of emotional intelligence, as well as mixed models, have prompted the construction of instruments to measure emotional intelligence. Mental ability models of emotional intelligence are most directly assessed by ability measures. Ability measures have the advantage of representing an individual’s performance level on a task. By contrast, self report measures (used within the mixed models) are filtered through a person’s self-concept and impression management motives (Mayer, Salovey, & Caruso, 2000). Thus, self-report is a less direct way of assessing performance, however, it has its own merits, including being relatively easy to administer, tapping internal experiences difficult to obtain using performance measures, and assessing ongoing conscious processes related to emotional thinking (Mayer, Salovey, & Caruso, 2000). Just as the ability model of emotional intelligence can be operationalized and measured, so too can the mixed models. To date, all mixed models have been measured using self-report approaches, while the ability model has utilized both performance-oriented assessment as well as self-report assessment (Mayer, Salovey, & Caruso, 2000).

Ability Model Emotional Intelligence Measurement

The ability model conceptualizes emotional intelligence as a set of mental skills that can be assessed with performance tests. The first comprehensive performance test of emotional intelligence was the Multifactorial Emotional Intelligence Scale (MEIS) that consisted of 12 ability measures of emotional intelligence divided into 4 branches of abilities, including (a) perceiving, (b) facilitating, (c) understanding, and (d) managing emotion (Mayer & Salovey, 1997; Mayer, Salovey, & Caruso, 2000).

Branch 1 (perceiving): tasks measure emotional perception in Faces, Music, Designs, and Stories. Branch 2 (facilitation): contains two tests that measure Synesthesia Judgements (e.g., “How hot is anger?”) and Feeling Biases. Branch 3 (understanding): attempts to examine the individual’s understanding of emotion. For example, one question asks, “Optimism most closely combines which two emotions?” and the participant has to choose “pleasure and anticipation” over less specific alternatives such as “pleasure and joy.” Branch 4 (managing emotion): attempts to measure emotion management in (a) the Self, and (b) Others. These tasks ask participants to read a scenario and then rate five reactions to it according to how good they are (Mayer, Salovey, & Caruso, 2000). Since the initial development of this assessment, the authors have refined and developed a briefer version which has led to the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT).

Mixed Model Emotional Intelligence Measurement

BarOn’s mixed model of emotional intelligence was designed and operationalized as his Emotional Quotient Inventory (EQi). This assessment was then modified for the development of a Youth Version so that the assessment could be given, using separate

formats, to both adults and youth. The BarOn EQ-I:YV uses a 4-point Likert-type format in which respondents are asked to rate each item as to the extent that they relate to them. The response options are “Very Seldom True of Me”, “Seldom True of Me”, “Often True of Me”, and “Very Often True of Me”. The BarOn EQ-i:YV contains scales which divide the overall assessment into scaled measures of (1) Total Emotional Intelligence which incorporates scaled measures of (2) Intrapersonal “It is very easy to tell people how I feel”; (3) Interpersonal “I usually know how other people are feeling”; (4) Adaptability “I try to use different ways of answering hard questions”; and (5) Stress Management “I can stay calm when I am upset”; as well as scales for (6) General Mood “I feel sure of myself”; (7) Positive Impression (used to identify extreme positive endorsement within “faking good” response sets) “I like everyone I meet”; and an (8) Inconsistency Index (used as a reliability check for the consideration of inconsistencies in the way an individual has responded to similarly worded items (Bar-On & Parker, 2000)). The various scales of the BarOn EQ-i:YV were developed so that higher scores indicate increased levels of emotional intelligence.

The Total EQ scale is a measure of the overall level of emotional intelligence, and individuals who score well in this scale are considered to be generally effective in dealing with daily demands and are typically happy. The Intrapersonal Scale involves an individual’s ability to understand his/her emotions, as well as their ability to communicate their feelings and needs. This involves an individual’s ability to understand his/her own decision making process and the individual’s awareness of the degree to which thoughts and feelings are influencing his/her choices. The Interpersonal Scale involves an individual’s ability to maintain satisfying interpersonal relationships with

others. This domain would involve an individual's ability to be a good listener, as well as skills associated empathy involving his/her ability to understand and appreciate the feelings of others. The Adaptability Scale involves an individual's ability to be flexible, realistic, and effective in managing change. This domain incorporates an individual's ability to find positive ways of dealing with everyday problems. The Stress Management Scale involves an individual's ability to remain calm and work well under pressure. This ability to remain calm is associated with the individual's lack of impulsive behavior as well as his/her ability to respond to a stressful event without an emotional outburst. The General Mood Scale is associated with the overall current mood level of the respondent, and is a factor that needs to be taken into account when assessing an individual's true level of emotional intelligence, because of the strong relationship between demonstrated emotional intelligence and general mood. Individuals with high levels of emotional intelligence are frequently more optimistic than individuals with lower levels. Conversely, individuals who are more pessimistic often rate themselves lower with respect to the various abilities that such assessment items attempt to tap into (Bar-On & Parker, 2000).

According to the Bar-On model, emotionally intelligent people are people who are able to recognize and express their emotions, possess positive self-regard, and are able to actualize their potential capacities and lead fairly happy lives. They are able to understand the way others feel and are capable of making and maintaining mutually satisfying and responsible interpersonal relationships, without becoming dependent on others. These people are generally optimistic, flexible, realistic, and successful in solving problems and coping with stress, without losing control (Bar-On, 1997).

Regardless of the theoretical framework or model used by those who are currently pioneering both the conceptualization and assessment of emotional intelligence, there seems to be a consistent view that affective phenomena constitute a unique source of information for individuals about their surrounding environment and prospects, and this information informs their thoughts, actions, and subsequent feelings (Salovey, Detweiler-Bedell, Detweiler-Bedell, & Mayer, 2008). Therefore, an essential assumption shared by all models appears to be that individuals' differ in how skilled they are at perceiving, understanding, regulating, and utilizing this emotional information, and that this skill level represents a person's level of emotional intelligence, which contributes substantially to his or her intellectual and emotional well-being (Salovey et al., 2008).

Relations between Emotional Intelligence, Anxiety, and Self-Esteem

The shared assumption that emotional intelligence contributes to an individual's intellectual and emotional well-being seems to be supported when reviewing previous research investigating the relationships between emotional intelligence, anxiety, and self-esteem (Fernandez-Berrocal et al., 2006). The relationship between emotional intelligence (as measured by the Trait Meta-Mood Scale), anxiety, and overall physical and mental health has been well documented in adult samples. For instance, individuals who score lower on emotional clarity show poor emotional adjustment on a number of measures (Fernandez-Berrocal, Salovey, Vera, Extremera, & Ramos, 2005). Conversely, individuals reporting greater emotional clarity report higher levels of self-esteem, an important indicator of mental health (Salovey et al., 2002), and other research has demonstrated that trait EI is negatively associated with unauthorized absences and school expulsion (Petrides, Frederickson, & Furnham, 2002).

Summary of Relevant Literature

Despite the popularization of the construct known as Emotional Intelligence in the 1990's, serious empirical research has begun to emerge within the present decade. The problematic issues in this area of work are primarily related to the manner in which the term emotional intelligence is used to represent various aspects of the human condition. While some prefer to focus narrowly on specific abilities and competencies concerned with appraising, understanding, and regulating emotions, as well as using them to facilitate cognitive activities; others have chosen to define emotional intelligence in terms of motivation such as persistence and zeal, cognitive strategies such as the delay of gratification, and even character such as being a good person (Salovey, Detweiler-Bedell, Detweiler-Bedell, & Mayer, 2008).

The concept of emotional intelligence as an ability is distinct from mixed models of emotional intelligence. While each conceptualization seems to have guided the development of potential measures down a different path, both may be useful in the study of human effectiveness and success in life. To some extent, the fate of emotional intelligence measures may be connected to advances in personality psychology wherein better criteria of life activities, (including success) are specified. (Mayer, Salovey, & Caruso, 2000).

CHAPTER III

METHOD

The purpose of this study was to determine the mediating effect of coping styles (CS, as defined by the *Coping Inventory for Stressful Situations*) on the influence of emotional intelligence (EI, as defined by the *BarOn Emotional Quotient-Inventory: Youth Version*) on self-esteem (SE, as defined by the *Children's Depression Inventory*) and anxiety (ANX, as defined by the *Multidimensional Anxiety Scale for Children*) for juvenile delinquent males. Additionally, relations within this variable set were explored.

Procedure

Southwestern Oklahoma State University (SWOSU) operates five separate Level-E residential facilities. Level-E facilities refer to placements requiring the highest level of security without fences. This level of security is accomplished through contractual requirements of continuous 24 hour per day eyes-on supervision by facility staff. Each resident receiving placement in one of the SWOSU programs must be within the custody of the Office of Juvenile Affairs (OJA). This makes OJA the legal custodian of all residents placed in such settings. During the intake process of each resident receiving placement, a consent form was utilized allowing the legal guardian (OJA representative) of each resident to provide consent to participate in research for statistical data purposes.

In addition, each questionnaire was explained to the subjects at the onset of their participation, and Southwestern Oklahoma State University utilized all of the appropriate means to ensure that each resident was given the opportunity to understand his rights involving participation in such data collection assessments.

The Office of Juvenile Affairs (in the capacity of legal custodian) has provided Southwestern Oklahoma State University with permission to employ any research assessments, which may lead to the collection and future dissemination of empirical data. The data is therefore intended to inform the Office of Juvenile Affairs, and juvenile programming policy makers as well as practitioners within the field. The researcher received permission to utilize the data through a consent and release from Southwestern Oklahoma State University (Appendix A).

Upon arrival and immediately prior to discharge, all residents were administered a battery of assessments including the *BarOn Emotional Quotient Inventory- Youth Version* (EQ-I:YV), *Children's Depression Inventory* (CDI), *Multidimensional Anxiety Scale for Children* (MASC), and the *Coping Inventory for Stressful Situations* (CISS).

All scores were entered into a database in aggregate form. As previously noted, the researcher obtained permission through consent and release from Southwestern Oklahoma State University to utilize this database, and the researcher specifically chose to utilize only the scores associated with a resident's assessment at the time of arrival in order to maximize the number of subjects without utilizing a subject more than once.

Use of Human Subjects

The Institutional Review Board (IRB) at Oklahoma State University (OSU) reviews any research study that involves the use of human subjects. Although archival

data were used, the application reviewed the procedures and permission for access and approval was gained from the IRB before data collection began. A copy of the approval letter is provided in Appendix B.

Participants

The participants in this study were juvenile delinquent males between 15 and 18 years of age who were in an out-of-home placement at the time of data collection. The criteria for requiring such a placement ranges in both frequency and intensity of criminal or delinquent behavior. Thus, some residents may have a background of less severe or non-violent delinquent behavior that has been consistently demonstrated at a high frequency. Others may have demonstrated relatively few criminal behaviors, yet the severity of those infractions may be high, such as assault and battery or armed robbery. A total of 204 participant scores were utilized for the study.

Instruments

Instruments used in this study include the *BarOn Emotional Quotient – Inventory: Youth Version* (BarOn EQ-I: YV) to measure emotional intelligence, the *Children’s Depression Inventory* (CDI) to measure self esteem, the *Multidimensional Anxiety Scale for Children* (MASC) to measure anxiety, and the *Coping Inventory for Stressful Situations* (CISS) to measure coping style.

Emotional Intelligence

The BarOn EQ-I:YV is a self-report instrument designed to measure emotional intelligence in youth aged 7 to 18 years of age. The BarOn EQ-I:YV contains 60 items that are distributed across 7 scales, and uses a 4-point Likert-type format in which respondents are asked to rate each item as to the extent that they relate to them. The

response options are “Very Seldom True of Me”, “Seldom True of Me”, “Often True of Me”, and “Very Often True of Me”. The BarOn EQ-i:YV contains scales which divide the overall assessment into scaled measures of (1) Total Emotional Intelligence which incorporates scaled measures of (2) Intrapersonal “It is very easy to tell people how I feel”; (3) Interpersonal “I usually know how other people are feeling”; (4) Adaptability “I try to use different ways of answering hard questions”; and (5) Stress Management “I can stay calm when I am upset”. The assessment also includes scales for (6) General Mood “I feel sure of myself”; (7) Positive Impression (used to identify extreme positive endorsement within” faking good” response sets) “I like everyone I meet”; and an (8) Inconsistency Index (used as a reliability check for the consideration of inconsistencies in the way an individual has responded to similarly worded items (BarOn & Parker, 2000). The various scales of the BarOn EQ-i:YV were developed so that higher scores indicate increased levels of emotional intelligence.

The Total EQ scale is a measure of the overall level of emotional intelligence, where increased scores are generally considered to indicate an increased effectiveness in dealing with daily demands. This Total EQ scale is derived from a combination of the scores obtained on the Intrapersonal, Interpersonal, Stress Management, and Adaptability scales. As previously discussed, the Intrapersonal scale involves an individual’s ability to understand his/her emotions, and to communicate feelings and needs. This involves an awareness of the degree to which thoughts and feelings are influencing personal decisions. The Interpersonal scale involves an individual’s ability to understand and appreciate the feelings of others and an ability to maintain satisfying relationships. The Adaptability scale involves an individual’s ability to be flexible and effective in

managing change and dealing with everyday problems. The Stress Management scale involves an individual's ability to remain calm and respond to a stressful event without impulsiveness or an emotional outburst. (BarOn & Parker, 2000).

Self - Esteem

The Children's Depression Inventory (CDI) was used to assess self-esteem. However, it is important to note that within the CDI, the subscale associated with self-esteem is actually labeled Negative Self-Esteem. Thus, elevated scores within this subscale actually reflect lower self-esteem. The CDI is a 27-item self-report that quantifies a variety of depressive symptoms including disturbed mood, difficulties in hedonic capacity and vegetative functions, low self-evaluation, hopelessness, and problems in interpersonal behaviors. Three choices for each item correspond to three levels of symptomatology: 0 (absence of symptom), 1 (mild or probable symptom), or 2 (definite symptom). The child selects the sentence that best describes him/her for the past two weeks. Higher scores indicate increasing depression severity and the Total Score ranges from 0 to 54 (Kovacs, 2003).

The CDI self-report is suitable for administration to youths aged 7 to 17 and can be completed in approximately 15 minutes. The assessment manual indicates that if a child is a few months younger or older than the age guideline, the results will probably still be reasonably accurate. The CDI yields scores on five factors or subscales, in addition to the Total Score. These factors are labeled Negative Mood, Interpersonal Problems, Ineffectiveness, Anhedonia, and Negative Self-Esteem (Kovacs, 2003).

The Negative Mood subscale reflects feeling sad, feeling like crying, worrying about "bad things", being bothered or upset by things, and being unable to make up one's

mind. The Interpersonal Problems subscale reflects problems and difficulties in interactions with people, including trouble getting along with people, social avoidance, and social isolation. The Ineffectiveness subscale reflects negative evaluation of one's ability and school performance. The Anhedonia subscale reflects "endogenous depression", including impaired ability to experience pleasure, loss of energy, problems with sleep and appetite, and a sense of isolation. The Negative Self-Esteem subscale reflects low self-esteem, self-dislike, feelings of being unloved, and a tendency to have thoughts of suicide. It is within this subscale that scores will be utilized for this study. The Total Score then represents the overall symptomatology across these five areas or factors (Kovacs, 2003).

Anxiety

The Multidimensional Anxiety Scale for Children (MASC) will be used to assess anxiety and is a practical and efficient screening tool for youths aged 8 to 19 years of age. The MASC is an easily administered self-report instrument that assesses the major dimensions of anxiety in young persons, and is intended to reliably and validly assess anxiety symptoms across clinically important symptom domains while discriminating between important anxiety symptoms. Within each of the different scales of the MASC, higher scores indicate increasing levels of associated symptomatology (March, 1997).

The MASC consists of 39 items distributed across four basic scales, three of which have subscales: (1) Physical Symptoms with subscales of: Tense / Restless and Somatic / Autonomic, (2) Harm Avoidance with subscales of: Perfectionism and Anxious Coping, (3) Social Anxiety with subscales of: Humiliation / Rejection and Performing in Public, and (4) Separation / Panic. There is also a scale measuring Total Anxiety and two

major indexes of Anxiety Disorder, and Inconsistency. The MASC profile then allows for the assessment scores to be converted to standardized scores with separate norms for both males and females in four-year intervals (March, 1997).

High scorers on the Physical Symptoms scale are likely to report feeling tense, dizzy or sick to their stomachs. They may also report that they are shaky, sweaty, and subject to a racing heart. The two subscales are intended to differentiate between somatic symptoms (heart racing), and tension symptoms (feeling uptight) (March, 1997).

High scores on the Harm Avoidance scale are likely to report that they try extra hard to obey parents or teachers, do things right, and check that they have done nothing wrong. The two subscales are intended to differentiate between perfectionism symptoms (doing everything exactly right), and anxious coping symptoms (checking to make sure things are safe) (March, 1997).

High scorers on the Social Anxiety scale frequently report that they worry about their peers laughing or making fun of them, being called on in class, doing something embarrassing, or performing in public. The two subscales are intended to differentiate between humiliation fear (people laughing at me), and performance fear (getting called on in class) (March, 1997).

High scorers on the Separation / Panic scale are likely to report being scared when they are alone or in unfamiliar situations, often preferring to stay close to family members or home. The Total Anxiety scale incorporates all four of the main anxiety scales, thus higher scores indicate the endorsement of numerous symptoms across all four domains. The Anxiety Disorders index is then utilized differentiate between high and low

scorers who endorse a set of items that have been found to differentiate children with a diagnosis of an anxiety disorder from children without a diagnosis (March, 1997).

Coping Styles

The Coping Inventory for Stressful Situations (CISS) is an easily administered scale for measuring multidimensional coping. The CISS scales were derived from both theoretical and empirical bases and are intended to measure Task-Oriented, Emotion-Oriented, and Avoidance-Oriented coping styles. This multidimensional approach to the assessment of coping affords greater precision in predicting preferred coping styles and contributes to understanding the differential relationships between coping styles and other variables (Endler & Parker, 1999).

The CISS is a 48 item self-report measure of coping. Sixteen items assess Task-Oriented coping, 16 items assess Emotion-Oriented coping, and 16 items assess Avoidance-Oriented coping. There are two subscales for the Avoidance-Oriented scale: Distraction which consists of 8 items, and Social Diversion which consists of 5 items. The remaining three items for the Avoidance scale are not scored for either of the two subscales. To control for order effects, the items of the three major scales are randomly distributed within the form. Respondents are asked to rate each item on a 5-point frequency scale ranging from (1) "Not at all" to (5) "Very much", where higher assessment scores on any of the five subscales indicates a greater degree of coping activity for the person on the corresponding coping dimension (Endler & Parker, 1999).

Items associated with the Task-Oriented scale describe purposeful task-oriented efforts aimed at solving the problem, cognitively restructuring the problem, or attempting to alter the situation. The main emphasis is on the task or planning, and on attempts to

solve the problem. Items for the Emotion-Oriented scale describe emotional reactions that are self oriented. The aim is to reduce stress and reactions include emotional responses (e.g., blame myself for being too emotional, get angry, become tense), self-preoccupation and fantasizing. In some cases the reaction may actually increase stress because the reaction is oriented towards the person (e.g., became very upset). Items associated with Avoidance-Oriented coping describe activities and cognitive changes aimed at avoiding the stressful situation. This can occur through “distraction” by other situations or tasks (task-oriented) or through “social diversion” (person-oriented) where either can be used as a means of alleviating stress (Endler & Parker, 1999).

Data Analysis

A correlation analysis was used to identify possible relationships that may exist between the BarOn measure of emotional intelligence, anxiety, self-esteem and each of the three coping styles (Hypothesis 1). Additionally, simple linear regression and multiple regression analyses were utilized to examine the mediating effect of each coping style on the influence of emotional intelligence on both self-esteem and anxiety (Hypotheses 2 – 7). For this analysis, the measure of Emotional Intelligence was held as the predictor variable to each of the separate outcome variables of Anxiety, and Self-esteem, within simple linear regressions. Then, simultaneous multiple regressions, which included each mediating variable of task-oriented coping, emotion-oriented coping, and avoidance-oriented coping were conducted to provide a comparison of direct effects after inclusion of each separate mediating variable.

The central idea within a mediation model is that the effects of a predictor variable on the outcome variable can be accounted for by an intervening or mediating

variable (Baron & Kenny, 1986). Therefore, the mediating variable specifies the manner in which, changes in the predictor variable are associated with changes in the outcome variable (Baron & Kenny, 1986). In other words, the mediation model assumes that the independent variable directly influences the mediating variable, which then directly influences the dependent variable (Miller & Hellman, 2007).

To test for mediation, three regression equations should be estimated. In the first equation, the mediator (coping style, CS) is regressed on the independent variable (emotional intelligence, EI). In the second equation, the dependent variable (self-esteem) is regressed on the independent variable (EI). Then, in the third equation, the dependent variable (self-esteem) is regressed on both the independent variable (EI) and the mediating variable (CS), simultaneously.

To establish mediation, the independent variable must significantly affect both the mediator and the dependent variable in the first and second equations. Then, the direct effect of the independent variable on the dependent variable must be less in the third equation than in the second equation (Miller & Hellman, 2007). For such a comparison, the standardized regression coefficients, or β , were used as an indicator of the direct effect of emotional intelligence on self-esteem both before and after inclusion of the mediating variable.

This complete process of mediation analysis was conducted for each of the separate coping styles (task-oriented, emotion-oriented, and avoidance-oriented) and each of the separate dependent variables (self-esteem and anxiety) which meet the prerequisite criteria in the first two regression equations. The data were analyzed using SPSS 15.0.

The significance of mediation was then tested using the Sobel test. The Sobel test compares the strength of the indirect effect of the predictor variable on the outcome variable (which is measured as the product of the coefficients of the predictor to the mediator and the mediator to the outcome variable), to the null hypothesis that the product equals zero (Preacher & Hayes, 2004). An online calculator provided by Preacher and Leonardelli, at quantpsy.org, was used to complete the Sobel test.

Summary

Emotional problems associated with anxiety and self-esteem have long been recognized for their association with juvenile delinquency (Donnellan, Trzesniewski, Robins, Moffitt, and Caspi, 2005; Agnew, 1992). Researchers have also continued to report a strong inverse relationship between anxiety and emotional intelligence (Fernandez-Berrocal, 2005), and a positive relationship between emotional intelligence and self-esteem (Babu, 2008; Fernandez-Berrocal, 2006). Furthermore, many of the problems associated with these emotional influences are often related to the use of maladaptive coping strategies under stressful situations (Hussong & Chassin, 2004).

Taken together, these lines of research suggest that delinquent youth are likely to have some difficulty in the skills associated with emotional intelligence and may demonstrate a tendency to utilize less adaptive coping strategies. Therefore, the identification of a potential mediating variable may provide researchers with not only a better understanding of this population, but may also lead to the identification of potential treatment targets, thus, providing professionals with alternative approaches to increasing an adolescent's emotional intelligence and decreasing the likelihood of delinquency.

CHAPTER IV

FINDINGS

In the current study, coping styles were hypothesized to mediate the relationship of both self-esteem (Hypotheses 2, 3, & 4) and anxiety (Hypotheses 5, 6, & 7) to emotional intelligence, within a population of juvenile delinquent males. In addition and as a prerequisite for testing mediation, hypothesis 1 proposed a significant relationship between emotional intelligence, self-esteem, anxiety, and each of the three different coping styles of Task-Oriented coping, Emotion-Oriented coping, and Avoidance-Oriented coping.

Correlation Analyses

Correlation analyses were used to test hypothesis 1 (see Table 1). As previously discussed, the measure associated with self-esteem is labeled Negative Self-Esteem. Therefore, elevated scores within this measure reflect low self-esteem or self-dislike. Correlational analyses indicated a significant inverse relationship between emotional intelligence and this measure of negative self-esteem ($r = -.307, p = .000$). Correlational analyses indicated a significant relationship between emotional intelligence and both task-oriented coping ($r = .404, p = .000$) and emotion-oriented coping ($r = -.239, p = .001$), respectively. However, analyses indicated that the relation between emotional

intelligence and avoidance-oriented coping ($r = -.079$, $p = .261$) was not significant. As previously discussed, in order to establish mediation, the independent variable must first demonstrate a significant effect on both the mediator and the dependent variable. Therefore, since analysis failed to support the prerequisite relationship between emotional intelligence and the mediating variable of avoidance-oriented coping, hypothesis 4 was not tested.

Correlation analyses indicated that the relation between emotional intelligence and anxiety ($r = -.065$, $p = .356$) was not significant. Once again, since analyses failed to support the prerequisite relationship between emotional intelligence and the dependent variable of anxiety, hypotheses 5, 6, and 7 were not tested.

Due to significant correlations between emotional intelligence, negative self-esteem, and the task-oriented and emotion-oriented coping styles, the mediational models within hypotheses 2 and 3 were tested. First, the mediating affect of task-oriented coping on the relationship between emotional intelligence and negative self-esteem was tested (Hypothesis 2). Next, the mediating affect of emotion-oriented coping on the relationship between emotional intelligence and negative self-esteem was tested (Hypothesis 3).

Table 1

Inter-correlations between Emotional Intelligence, Anxiety, Negative Self-Esteem, Task-Oriented coping, Emotion-Oriented coping, and Avoidance-Oriented coping.

Variables	1	2	3	4	5	6
1. Emotional IQ	--					
2. Anxiety	-.065	--				
3. Neg. Self-Esteem	-.307*	.419*	--			
4. Task-Oriented	.404*	-.001	-.236*	--		
5. Emotion-Oriented	-.239*	.462*	.322*	.201*	--	
6. Avoid.-Oriented	-.079	.084	-.063	.422*	.399*	--

* $p < .01$

Regression Analyses

In order to test for mediation there are prerequisite relationships between the independent variable and both the mediating variable and dependent variable that must first be identified as significant. Once significant relationships between each of these variables has been indicated, three separate regression analyses involving all three variables can be conducted in order to provide standardized regression coefficients, which are interpreted as indices of the direct effects of variables on each other (Pedhazur, 1997). In order to establish mediation, the direct effect of the independent variable must be less in the regression equation which includes the mediating variable, than in the

regression equation that does not include the mediating variable (Miller & Hellman, 2007).

Regressions for hypothesis 2 were carried out in order to examine changes in beta weights of the relation between the predictor variable and the outcome variable from the first equation with only the predictor entered, to the last equation with the mediator also included (see Table 2). The mediating effect of task-oriented coping was examined by first completing a simple linear regression estimating the influence of emotional intelligence on task-oriented coping. Results indicated a significant influence between the independent variable and this mediating variable, $F(1, 202) = 39.302$; $p = .000$; $\beta = .404$; $p = .000$. A second simple linear regression was then calculated, estimating the influence of emotional intelligence on negative self-esteem. Results also indicated a significant influence of the independent variable on this dependent variable, $F(1, 202) = 21.086$; $p = .000$; $\beta = -.307$; $p = .000$. A third simultaneous regression analysis was then calculated estimating the direct influence of emotional intelligence on negative self-esteem when the mediator of task-oriented coping was included within the equation. Results from this third analysis indicated that when both emotional intelligence and the mediating variable were included in the equation, the direct effect from the mediating variable (task-oriented coping) to the dependent variable (negative self-esteem), failed to reach significance, $\beta = -.134$; ns. Furthermore, the direct effect of the independent variable (emotional intelligence) on the dependent variable remained significant, $\beta = -.253$; $p = .001$, even after the mediating variable was included in the equation. Therefore, while inclusion of task-oriented coping did seem to reduce the direct effect of emotional intelligence on negative self-esteem (as indicated by the changes in beta weights), providing support to

the mediation model hypothesized, the results seem to indicate that task-oriented coping only partially mediates the influence of emotional intelligence on negative self esteem.

Table 2

Regressions Testing Mediation by Task-Oriented Coping on the Relation between Emotional Intelligence and Self-Esteem.

(Reg.)	Outcome Block and Predictors	Model Summary			Coefficients ^a			
		R ²	df	p	β	B	SE	p
(1)	Emotional Intelligence Task-Oriented	.163	202	.000	.404	.270	.043	.000
(2)	Emotional Intelligence Neg. Self-Esteem	.095	202	.000	-.307	-.139	.030	.000
(3)	Emotional Intelligence Task-Oriented Neg. Self-Esteem	.109	201	.000	-.134 -.253	-.090 -.114	.049 .033	.067 .001

^a β is the standardized regression coefficient and B is the non-standardized regression coefficient. SE is the standard error of B.

The mediating effect of hypothesis 3 was then examined by completing a similar series of regression analyses with emotion-oriented coping utilized as the mediating variable (see Table 3). Results indicated a significant influence between emotional intelligence and emotion-oriented coping, $F(1, 202) = 12.253$; $p = .001$; $\beta = -.239$; $p = .001$. As demonstrated within the previous mediation analysis, results from the second simple linear regression indicate a significant influence emotional intelligence on negative self-esteem, $F(1, 202) = 21.086$; $p = .000$; $\beta = -.307$; $p = .000$. Then a third simultaneous regression analysis was calculated estimating the direct influence of

emotional intelligence on negative self-esteem when the mediator of emotion-oriented coping was included within the equation. Results from this analysis demonstrated a significant direct effect from the mediating variable (emotion-oriented coping) to the dependent variable (negative self-esteem), $\beta = .263$; $p = .000$, however, the effect of emotional intelligence on negative self-esteem remained significant, $\beta = -.244$; $p = .000$, even after the mediator was included in the equation.

Table 3

Regressions Testing Mediation by Emotion-Oriented Coping on the Relation between Emotional Intelligence and Self-Esteem.

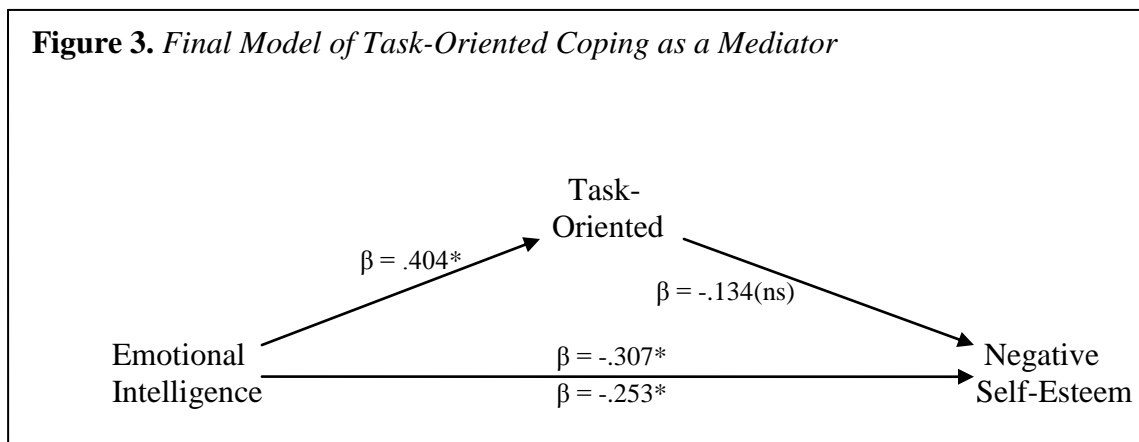
Outcome		Model Summary			Coefficients ^a			
(Reg.)	Block and Predictors	R ²	df	p	β	B	SE	p
(1)	Emotional Intelligence	.057	202	.001				
	Emotion-Oriented				-.239	-.152	.043	.001
(2)	Emotional Intelligence	.095	202	.000				
	Neg. Self-Esteem				-.307	-.139	.030	.000
(3)	Emotional Intelligence	.160	201	.000				
	Emotion-Oriented				.263	.187	.047	.000
	Neg. Self-Esteem				-.244	-.110	.030	.000

^a β is the standardized regression coefficient and B is the non-standardized regression coefficient. SE is the standard error of B.

Baron and Kenny (1986) state that if the path between the independent and dependent variable remains statistically significant, this may indicate the operation of multiple mediating factors and suggest that a more realistic goal should be to seek mediators that significantly decrease this path, rather than eliminating it altogether.

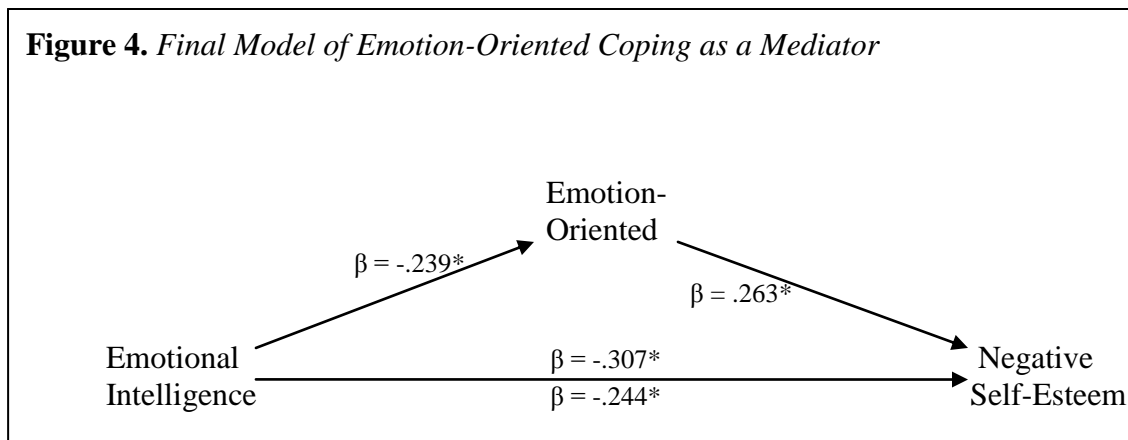
Partial mediation suggests that the effect of the independent variable on the dependent variable decreases due to the introduction of the mediating variable, yet the path from the independent variable to the dependent variable still remains statistically significant (Kenny, 2009). Thus, results from this second series of regression analyses do seem to indicate that emotion-oriented coping does partially mediate the relationship between emotional intelligence and negative self-esteem, as indicated by the reduction of beta weights after inclusion of the mediating variable.

Figure 3 summarizes the results of the regression analyses used to test the mediating effect of task-oriented coping on the influence of emotional intelligence on self-esteem for hypothesis 2. This figure utilizes a solid line between the predictor and the outcome variable to indicate that the direct effect remains significant even after inclusion of the mediating variable.



Note. Text above the path refers to beta weights for tests of direct effects prior to inclusion of the mediating variable. Text below the path refers to beta weights after the test of mediation.

Figure 4 summarizes the results of the regression analyses used to test the mediating effect of emotion-oriented coping on the influence of emotional intelligence on self-esteem for hypothesis 3. This figure also includes a solid line between the predictor and the outcome variable to indicate that the direct effect remains significant even after inclusion of the mediating variable.



Note. Text above the path refers to beta weights for tests of direct effects prior to inclusion of the mediating variable. Text below the path refers to beta weights after the test of mediation.

Mediating Effect Significance

In order to further examine the significance of this mediation effect the Sobel test was calculated using an online calculator provided by Preacher and Leonardelli, at quantpsy.org. As previously discussed, The Sobel test compares the strength of the indirect effect of emotional intelligence on negative self-esteem (which is measured as the product of the coefficients of the emotional intelligence to emotion-oriented coping and emotion-oriented coping to negative self-esteem) to the null hypothesis that the product equals zero (Preacher & Hayes, 2004). The Sobel test indicated that emotion-

oriented coping significantly mediated the relationship between emotional intelligence and negative self-esteem ($p = .008$).

CHAPTER V

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

The purpose of this study was to determine the hypothesized mediating effect of coping styles on the influence of emotional intelligence on self-esteem and anxiety for juvenile delinquent males. These analyses were intended to address two primary weaknesses in the current literature.

First, most studies investigating the significance of emotional intelligence have failed to account for the influence of coping styles, and instead have focused primarily on identifying the relationships between emotional intelligence and negative outcomes such as low self-esteem, high anxiety, and host of many others (Fernandez-Berrocal et al., 2006; Salovey, 2001). This has the propensity to underestimate the role of coping styles, and may possibly lead to inaccurate assumptions about the relationships between emotional intelligence and negative outcomes. The present study examined the influence of task-oriented coping, emotion-oriented coping and avoidance-oriented coping on the relationships between self-esteem and anxiety to emotional intelligence.

Second, while the relationships between emotional intelligence and psychological adjustment variables such as self-esteem and anxiety have been noted, the majority of

these studies have focused primarily on adult populations (Fernandez-Berrocal et al., 2005). The present study provides more balance to the overall literature by specifically investigating these relationships within a juvenile delinquent population.

Summary and Interpretation of Findings

The first research question was designed to examine the nature and strength of the relationships between emotional intelligence, self-esteem, anxiety, and each of the separate coping styles of task-oriented, emotion-oriented, and avoidance-oriented coping, within a population of juvenile delinquent males. A hypothesis was formed predicting significant correlations between each of these variables.

Emotional Intelligence

The current study provided support for the predicted relationship between emotional intelligence and self-esteem. Specifically, this study shows that emotional intelligence and self-esteem are positively correlated. This finding would seem to support the research of Salovey et al. (2002), which suggested that individuals reporting greater emotional clarity, and a greater ability in repairing their own emotions, also report a higher level of self-esteem.

The findings provided support for the predicted relations between emotional intelligence and both task-oriented and emotion-oriented coping styles. Pearson correlations indicate that emotional intelligence is positively associated with task-oriented coping, and negatively correlated with emotion-oriented coping, thus suggesting that those who have greater amounts of emotional intelligence are more likely to engage in task-oriented coping, and less likely to utilize an emotion-oriented coping style. However, unlike the previous research conducted by Salovey (2001) and Fernandez-

Berrocal et al. (2006) which suggested that individuals who discriminate clearly among feelings and show an ability to regulate their own emotions report less anxiety, Pearson correlations failed to provide support for the predicted relationship between emotional intelligence and anxiety. Pearson correlations also failed to provide support for the predicted relationship between emotional intelligence and avoidance-oriented coping.

Anxiety

Although the current study did not provide support for the predicted relationship between emotional intelligence and anxiety, Pearson correlations indicated a significant positive correlation between anxiety and negative self-esteem. Again, it is important to note that the measure used to assess self-esteem within this study is labeled negative self-esteem. Thus, elevated scores on this measure indicate low self-esteem. This provides an explanation of the positive correlation between the two variables. In other words, the results indicate that as anxiety goes up, one's level of self-esteem goes down.

Pearson correlations indicate a significant positive correlation between anxiety and emotion-oriented coping. Since coping and the use of specific coping styles is considered to be a preliminary action to outcome variables such as anxiety, the results would seem to suggest that an increase in the use of emotion-oriented coping may lead to increases in one's level of anxiety. However, unlike the findings of Moos (1993), which suggested that in response to stressful situations, the use of approach coping styles is associated with fewer negative outcomes than avoidance coping styles, this study showed that the relationship between avoidance-oriented coping and anxiety was not significant. This contrast in findings may result from differences between the measures used to assess coping styles. Most of the earlier assessments of coping styles seemed to differentiate

between only approach and avoidance styles of coping. This would seem to relegate emotion-oriented coping to the category of avoidance coping, because the individual would not be approaching the source of the stress with the intention of changing the situation. Since the assessment used within this study actually differentiates between emotion-focused coping and avoidance-oriented coping, these results may indicate that the maladaptive coping strategies referred to in previous research were actually an indication of the use of emotion-oriented coping styles, rather than avoidance-oriented coping.

Self-Esteem

The findings provided support for the predicted relationship between self-esteem and emotional intelligence, by demonstrating a negative correlation between emotional intelligence and the measure of “negative” self-esteem. Thus, these results indicate that as emotional intelligence increases an individual’s level of self-esteem also increases.

Pearson correlations indicate that an individual’s level of negative self-esteem is negatively correlated with task-oriented coping, and positively correlated with emotion-oriented coping. Once again, since engagement in coping, and the use of specific coping styles is considered to be a preliminary action to outcome variables such as self-esteem, the results of this study seem to suggest that an increase in the use of task-oriented coping may lead to increases on one’s level of self-esteem, while increases in the use of emotion-oriented coping may lead to a decrease in one’s level of self-esteem. However, unlike the findings of Holahan and Moos (1991), which suggested that the use of avoidance coping is associated with negative outcomes such as low self-esteem; this study showed that the relationship between avoidance-oriented coping and self-esteem was not significant.

Mediating Effect of Coping Styles

The findings provided support for the hypothesis that task-oriented coping mediates the relationship between emotional intelligence and self-esteem, by demonstrating a reduction in the direct effect of emotional intelligence on self-esteem, after including task-oriented coping into the regression analysis. However, ideally when seeking to identify a possible mediating variable, the expectation is for results to show that after inclusion of the mediating variable, the direct effect of the predictor variable on the outcome variable is no longer significant. In this study, the opposite occurred. After including the mediating variable of task-oriented coping into the regression equation, the direct effect of emotional intelligence on self-esteem remained significant, while the direct effect of task-oriented coping on self-esteem became no longer significant. While a search for mediation requires a causal hypothesis to be driven by theory, and cannot be identified simply through the use of statistical analysis, this finding may provide some guidance to future research, regarding the separate roles of both emotional intelligence and coping styles on specific outcome variables.

The findings provided support for the hypothesis that emotion-oriented coping mediates the relationship between emotional intelligence and self-esteem. Results from this study indicate that the direct effect of emotional intelligence on self-esteem decreases after the emotion-oriented coping mediator is included within the regression equation. However, it is also important to note that even after inclusion of the mediator into the regression equation, the direct effect of emotional intelligence on self-esteem, remained significant. Therefore, these findings seem to indicate that emotion-oriented coping

partially mediates the relationship between emotional intelligence and self-esteem, and suggests that there are likely other mediating variables involved within the relationship.

Conclusions

The findings of this study lead to several important conclusions. First, the BarOn model of emotional intelligence suggests that emotionally intelligent people are able to recognize and express their emotions, possess positive self-regard, and are able to actualize their potential in order to lead fairly happy lives (BarOn, 1997). The current study provides support for this conceptualization by showing that the BarOn measure of emotional intelligence is positively correlated with self-esteem.

Second, the BarOn model suggests that emotionally intelligent people are generally effective in solving problems and coping with stress (BarOn, 1997). The findings of this study seem to further support this model by demonstrating that emotional intelligence is positively correlated with task-oriented coping, which involves purposeful efforts aimed at solving the problem or altering the situation. The findings also indicate that emotional intelligence is negatively correlated with emotion-oriented coping, and that avoidance-oriented coping was not significantly related to emotional intelligence. Furthermore, avoidance-oriented coping was not significantly related to either outcome variable of self-esteem or anxiety, while emotion-oriented coping showed a positive relationship with anxiety. Taken together, these findings seem to suggest that emotion-oriented coping is less effective than avoidance-oriented coping, because it may lead to a reduction in self-esteem and an increase in anxiety.

Third, the findings indicate that emotion-oriented coping partially mediates the relationship between emotional intelligence and self-esteem, by demonstrating a

reduction in the direct effect of emotional intelligence on self-esteem, after inclusion of emotion-oriented coping into the regression equation. This may suggest that individuals with low levels of emotional intelligence tend to utilize an emotion-oriented coping style involving self oriented emotional reactions that contribute to a loss of self-esteem. However, the effect of emotional intelligence on self-esteem remained significant even after inclusion of the mediator, and according to Baron and Kenny (1986) this may indicate the operation of multiple mediating factors.

Finally, the findings of this study showed that emotional intelligence was not correlated to anxiety. This finding is not consistent with the literature and may be related to the measure of overall anxiety used within this study, which is derived from a combination of subscales designed to measure the four major dimensions of anxiety. Since some of these subscales of anxiety may act as a counterweight when combined to form the total anxiety score, it remains possible that emotional intelligence may be significantly related to specific dimensions of anxiety, and thus warrants further study.

Recommendations

Several implications are evident based on these findings. According to BarOn (1997) intelligence describes the aggregate of competencies, skills, and abilities that represent a collection of knowledge used to cope with life effectively. Thus, the BarOn model of emotional intelligence emphasizes a specific type of emotional competencies, skills, and abilities, and suggests that emotionally intelligent individuals possess positive self-regard and are successful in solving problems and coping with stress (BarOn, 1997).

The findings of this study provide support to both the BarOn model of emotional intelligence as well as the BarOn measure of emotional intelligence by demonstrating a

significant positive relationship between the BarOn Emotional Quotient-Inventory: Youth Version and both self-esteem and task-oriented coping. These findings seem to further suggest that the BarOn EQ-I: YV provides an effective and efficient measure of an individual's level of emotional intelligence that can be utilized in both treatment and research applications.

Implications for Theory

Furthermore, the findings of this study seem to indicate a convergence between differing conceptualizations of emotional intelligence by demonstrating support for research that utilized an alternative measure of emotional intelligence. The findings of significant relationship between self-esteem and the BarOn EQ-I: YV is consistent with the research of Salovey et al. (2002), which utilized the Trait Meta-Mood Scale and suggested that individuals reporting greater emotional clarity, and a greater ability in repairing their own emotions, also report a higher level of self-esteem. This finding takes on added significance when considering the studies of Donnellan et al. (2005), and Fergusson and Horwood (2002), which demonstrated that engagement in delinquent behavior, is associated with low self-esteem.

The implications of these findings along with the existing literature may indicate a cyclical relationship where increased emotional intelligence leads to the use of task-oriented coping whereby individuals face their problems realistically and non-defensively, which produces self-generated approval and raises self-esteem. This increased confidence in one's ability to effectively solve his or her problems may then contribute to an increase in the competencies and abilities associated with emotional intelligence.

Implications for Practice

The practical applications of these findings suggest that juvenile delinquents may benefit from programming designed to increase emotional intelligence, as well as programming designed to increase the use of task-oriented coping. The implications would be that increases in either emotional intelligence or task-oriented coping may lead to an increase in self esteem, thus decreasing the amount of engagement in delinquent behavior.

According to BarOn (1997), emotional intelligence and its related skills can be developed through training and remedial programs as well as through therapeutic interventions. BarOn (1997) indicates that the goal is to teach the skills that will improve overall social and emotional competence, and suggests that programs designed to increase emotional self-awareness followed by reality testing may be particularly effective for young people who are at risk for violent behavior.

Suggested Research

Little research has been conducted examining the simultaneous effects of emotional intelligence, and coping styles on outcome variables such as self-esteem, anxiety, and depression. Given this deficit in the literature and the findings of this study, future research recommendations are warranted.

First, while studies on the relationships between emotional intelligence and outcomes variables are available from a variety of sources, the vast majority of these studies have primarily focused on identifying the nature and strength of these relationships. This has the propensity to underestimate the role of other variables which may mediate these relationships. Furthermore, the findings of this study demonstrated

that after including both task-oriented coping and emotional intelligence into the regression equation, the direct effect of emotional intelligence on self-esteem remained significant, while the direct effect of task-oriented coping on self-esteem became no longer significant. Therefore, it is possible that emotional intelligence may act as a mediator for the relationship between coping styles and self-esteem. It is also possible that emotional intelligence may act as a mediator for the relationship between other predictor variables and other outcome variables.

Therefore, additional studies examining the influence of coping styles on emotional intelligence may provide a more accurate understanding of these relationships. Additionally, further research involving the simultaneous examination of emotional intelligence along with other possible predictor variables on a variety of outcome variables may provide a more accurate understanding of the role and influence of emotional intelligence.

Second, further research should be conducted examining the differentiation between emotion-oriented coping and avoidance-oriented coping. An abundance of literature currently exists indicating that the use of approach styles of coping is associated with fewer negative outcomes than avoidance coping styles (Moos, 1993). However, this study showed that avoidance-oriented coping was neither significantly related to anxiety nor self-esteem. This may suggest that Endler and Parker's (1999) attempt to differentiate between emotion-oriented coping and avoidance-oriented coping, provides a better indication of the actual coping styles and specific coping strategies that are associated with negative outcomes. In order to more accurately understand the role and influence of

coping styles, additional studies utilizing a more precise differentiation of coping styles should be conducted.

Finally, in order to better understand the role of emotional intelligence in delinquency, experimental studies examining increases in emotional intelligence and subsequent changes in delinquent behavior should be conducted.

Limitations of the Study

There are a number of limitations that should be considered when interpreting this analysis. As described in chapter 2, there are currently three separate and prominent conceptualizations of emotional intelligence. Each of these different ways of conceptualizing emotional intelligence has led to different manner of assessing the construct. This study utilized an assessment that is associated with the BarOn model of emotional intelligence. Therefore, it is likely that other researchers choosing to utilize a different model and assessment of emotional intelligence may find various differences in relationships between emotional intelligence and other variables.

Second, this study utilized a mediation model that predicted coping styles would mediate the relationship between emotional intelligence and the outcome variables. However, after the analysis of this study, it seems that it may be possible to examine emotional intelligence as a possible mediator between coping styles and outcome variables. The model utilized within this study may have been influenced by an assumption that intelligences represent a variable that is more stable, and thus unlikely to fluctuate simply because of changes in the coping style utilized. However, it may be that an individual's use of a specific coping style is actually more stable and consistent than originally hypothesized. Therefore, studies examining a potential mediation model where

emotional intelligence is predicted to mediate the relationship between coping styles and outcome variables may provide a greater understanding of the influences on emotional intelligence.

Finally, the subjects utilized within this study were all from an adolescent juvenile delinquent population. While this study does provide some balance to the overall literature examining the relationships between emotional intelligence and other variables, these findings cannot be generalized to the regular population of adolescents. Therefore, the need remains to further examine the relationship between emotional intelligence and other variables, within adolescent populations.

Summary

In conclusion, this study suggests that there is an association between emotional intelligence and self esteem; an association between emotional intelligence and both task-oriented and emotion-oriented coping; and that emotion oriented coping partially mediates the relationship between emotion intelligence and self-esteem, within a juvenile delinquent population. Given the previous findings that suggest self-esteem is negatively related to engagement in delinquent behaviors, interventions aimed at increasing both task-oriented styles of coping and overall emotional intelligence would seem to be warranted. Furthermore, continued research aimed at identifying potential mediating variables between such relationships, may lead to more effective intervention and prevention programs.

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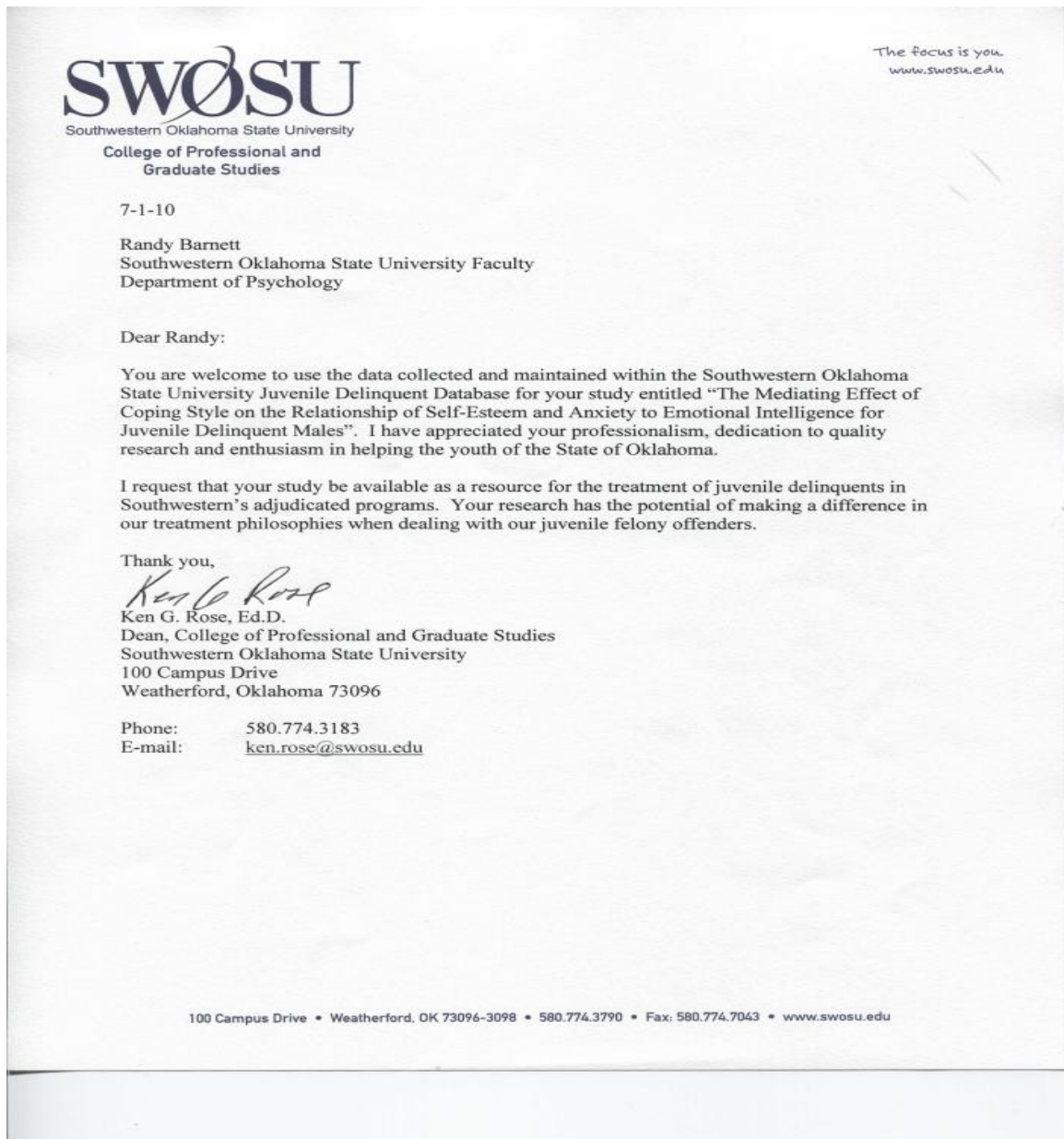
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APPENDICES

APPENDIX A



APPENDIX B

Oklahoma State University Institutional Review Board

Date: Wednesday, July 07, 2010
IRB Application No ED1094
Proposal Title: The Mediating Effect of Coping Style on the Relationship of Self-Esteem and Anxiety to Emotional Intelligence for Juvenile Delinquent Males

Reviewed and Processed as: Exempt

Status Recommended by Reviewer(s): Approved Protocol Expires: 7/6/2011

Principal Investigator(s):

Randy Barnett 107 Bluestem Weatherford, OK 73096	Diane Montgomery 424 Willard Stillwater, OK 74078
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The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

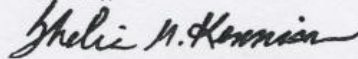
The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Beth McTernan in 219 Cordell North (phone: 405-744-5700, beth.mcternan@okstate.edu).

Sincerely,



Shelia Kennison, Chair
Institutional Review Board

APPENDIX C

Attachment: B

Records Review Request

07-01-2010

Dr. Ken Rose
SWOSU Dean of Professional and Graduate Studies
SWOSU Principle Investigator: Juvenile Delinquent Adventure Programs
100 Campus Drive
Weatherford, Oklahoma 73096

Re: Request of Data

Dr. Rose, I would like to request the use of some of the data collected and maintained within the Southwestern Oklahoma State University Juvenile Delinquent Database. The title of my current study is: "The Mediating Effect of Coping Style on the Relationship of Self-Esteem and Anxiety to Emotional Intelligence for Juvenile Delinquent Males".

The following is a list of the only data that I am requesting:

BarOn Emotional Quotient-InVENTORY: Youth Version:	Resident Scores
Multidimensional Anxiety Scale for Children:	Resident Scores
Children's Depression Inventory:	Resident Scores
Coping Inventory for Stressful Situations	Resident Scores
Years of age at the time of assessment	Resident Age

Within the study, I will assign an ID number to each resident's set of scores regarding the various assessments. This will provide adequate control for accurate correlations without the risk associated with the release of identifying information.

I appreciate your time and consideration in this matter.
Please feel free to contact me at (580) 774-6051 if you have any further questions.

Sincerely,



Randy Barnett
SWOSU Instructor
Psychology Department

VITA

John Randall Barnett

Candidate for the Degree of

Doctor of Philosophy

Thesis: COPING STYLE AS A MEDIATOR TO THE INFLUENCE OF
EMOTIONAL INTELLIGENCE ON SELF-ESTEEM AND
ANXIEITY FOR JUVENILE DELINQUENT MALES

Major Field: Educational Psychology

Biographical:

Education:

Completed the requirements for the Doctor of Philosophy in Educational Psychology at Oklahoma State University, Stillwater, Oklahoma in December, 2010.

Completed the requirements for the Master of Science in Applied Psychology at Southwestern Oklahoma State University, Weatherford, Oklahoma in July, 1999.

Completed the requirements for the Bachelor of Arts in Criminal Justice at Southwestern Oklahoma State University, Weatherford, Oklahoma in May, 1996.

Experience: Instructor at Southwestern Oklahoma State University from January 2009 to the present; Director of SWOSU's Cedar Canyon Adventure Program from July 2003 to December 2008; Counselor at SWOSU's Adventure Programs from May 1999 to June 2003.

Professional Memberships: Southwestern Psychological Association.

Name: John Randall Barnett

Date of Degree: May 2011

Institution: Oklahoma State University

Location: Stillwater, Oklahoma

Title of Study: COPING STYLE AS A MEDIATOR TO THE INFLUENCE OF
EMOTIONAL INTELLIGENCE ON SELF-ESTEEM AND
ANXIETY FOR JUVENILE DELINQUENT MALES

Pages in Study: 72

Candidate for the Degree of Doctor of Philosophy

Major Field: Educational Psychology

Scope and Method of Study: The purpose of this study was to determine the mediating effect of coping styles on the relationship of self-esteem and anxiety to emotional intelligence for juvenile delinquent males. Additionally, the relations between this variable set were explored. A total of 204 juvenile delinquent males between 15 and 18 years of age were utilized for the study. Data were analyzed using correlation and regression analyses.

Findings and Conclusions: This study suggests that there is a significant positive correlation between emotional intelligence and self-esteem; a positive correlation between emotional intelligence and task-oriented coping; a negative correlation between emotional intelligence and emotion-oriented coping; and that emotion-oriented coping partially mediates the relationship between emotional intelligence and self-esteem within a juvenile delinquent population. The findings of this study provide support to both the BarOn model of emotional intelligence as well as the BarOn measure of emotional intelligence.

ADVISER'S APPROVAL: Diane Montgomery
