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## **Coping in Court-Involved Adolescents and the Relationship with Stressors, Delinquency, and Psychopathology**

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COPING IN COURT-INVOLVED ADOLESCENTS AND THE RELATIONSHIP  
WITH STRESSORS, DELINQUENCY, AND PSYCHOPATHOLOGY

A Dissertation Presented

by

YARIV HOFSTEIN

Submitted to the Graduate School of the  
University of Massachusetts Amherst in partial fulfillment  
of the requirements for the degree of

DOCTOR OF PHILOSOPHY

May 2009

Clinical Psychology

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ABSTRACT

COPING IN COURT-INVOLVED ADOLESCENTS AND THE RELATIONSHIP  
WITH STRESSORS, DELINQUENCY, AND PSYCHOPATHOLOGY

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The current study explored coping and the relationship between coping, stressors, seriousness of delinquency, and internalizing and externalizing psychopathology in a sample of 93 (69 male, 24 female, M age=14.3 SD=1.4) court-involved adolescents. Participation took place in the Juvenile Court Clinics of Hampden, Hampshire, and Franklin Counties in Massachusetts. Participants completed the Brief COPE (Carver, 1997) with added items to measure aggressive coping, the Behavior Assessment System for Children Parent Report, Second Edition (BASC-2, PRS), and the Self-Report Delinquency Scale (SRD; Elliot, Huizinga, & Ageton, 1985). The documented history of delinquencies and stressors was collected from court records. An exploratory principal component analysis of the 14 subscales of the Brief COPE was conducted yielding 4 factors: approach coping, avoidant coping, seeking support, and emotional coping. Male participants reported more Active Coping than female participants whereas female participants demonstrated more Self -Blame Coping than male participants. Caucasian

participants used more Acceptance, Venting, and Seeking Emotional Support than African-American and Hispanic participants. Participants with financial hardships reported using more Denial Coping than participants without financial hardship. Participants who were raised in single-parent households reported less Seeking Emotional Support Coping than participants who were raised in two-parent households. Participants who were subjected to parental physical abuse used less Seeking Instrumental Support Coping than participants without a history of parental physical abuse. Participants with a history of physical abuse between parents reported more Denial than participants without such history. Structural Equation Modeling (SEM) revealed that the avoidant coping factor was associated with more internalizing symptoms and that the approach coping factor was associated with fewer internalizing symptoms. Coping was not associated with externalizing symptoms or seriousness of delinquency. The current investigation provides preliminary evidence for the use of the Brief COPE scale in court-involved adolescents. Furthermore, the study introduced a novel way of capturing aggressive ways of coping that may be particularly relevant for delinquent populations. The differences in coping strategies as a function of stressor supports an argument that coping is flexible and is influenced by environmental circumstances. Implications of the results include the need to develop coping measures that capture unique dimensions of coping in court-involved adolescents and the need to develop coping-informed interventions for at-risk adolescents.

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## CHAPTER I

### INTRODUCTION

There is little doubt that juvenile delinquency is a national problem of major significance. The juvenile proportion of violent crimes in the U.S. involving arrests between 1997 and 2003 is about 12%. Because the immediate and long-term social and fiscal consequences of such delinquencies are tremendous, the prevention of criminal acts perpetrated by youth has become a pressing issue on the national agenda (Schaeffer & Borduin, 2005). From a mental health perspective, juvenile delinquency has been found to be associated with a range of both internalizing and externalizing behavioral and emotional problems (Vermeiren, 2003).

Without intervention, aggressive and criminal acts can develop into a Conduct Disorder (CD), a recurrent, persistent pattern of behavior in which the child violates the basic rights of others or major age-appropriate societal norms or rules (DSM-IV-TR, APA, 2000). In 25%-40% of the cases CD progresses in adulthood to Antisocial Personality Disorder (ASPD), a pervasive pattern of disregard for and violation of the rights of others that is often associated with serious crimes (Olweus, 1980).

Many interventions developed for delinquent youth share the underlying assumption that because at-risk adolescents demonstrate certain less adaptive coping skills, they revert to aggressive, or delinquent behaviors and exhibit other emotional and behavioral problems. Traditionally, coping is considered a mediator in the relationship between stressors and physiological and psychological outcomes (Carver, 1997). Thus, how stressors in the environment influence psychological functioning may depend on the

repertoire of interpretations and reactions available to the individual experiencing the stressors. Still, very little is known about how delinquent behaviors are related to coping.

The goal of the current investigation was to explore the relationship between the coping behaviors of court-involved adolescents (aged 12-17) and the seriousness of their delinquent behaviors and emotional and behavioral problems. This investigation was built on the existing literature in the area of adolescent coping and was innovative in that it was one of only a few projects that address coping in delinquent youth.

### Coping

In the past four decades there has been growing interest in how individuals cope with stress. Research in the 1960s and 1970s began addressing coping behaviors or coping activities as part of a meaningful construct. At the time, coping was referred to as conscious strategies used by individuals when encountering stressful events (Parker & Endler, 1996). Early efforts in the field of coping focused on the transactional perspective that emphasizes an interaction between the person and the environment (Dohrenwend, Krasnoff, Askensy, & Dohrnwend, 1978; Lazarus & Folkman, 1984). According to this perspective, adverse events are stressful to the extent that individuals who experience them interpret them as threatening to their well-being. Characteristics of the event and of the individual such as personality, values, and vulnerabilities (Lazarus, 1993) evoke coping behaviors. Coping, therefore, can be defined as "constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (Lazarus & Folkman, 1984 p.141).

There is a lack of consensus regarding the boundaries of coping. The debate over what constitutes coping often revolves around the question of whether or not all human responses to stress should be viewed as forms of coping. The narrow approach views coping as only one of a range of possible responses to stress and emphasizes consciousness, effort, and volition. Lazarus and Folkman (1984) and others (e.g. Compas, 1987) have argued that automated, regulatory mechanisms such as shifting attention and learned helplessness should not be considered coping. In support of this notion, Compas, Connor-Smith, Seltzman, Thomsen, and Wadsworth (2001) view coping as “conscious volitional efforts to regulate emotion, cognition, behavior, physiology and the environment as a response to stressful events or circumstances” (p.89).

A broader approach to coping includes both volitional and automatic regulatory responses (Karoly, 1993). Coyne and Gottlieb (1996) view the exclusion of habitual or automatic responses from coping research as a considerable flaw. They maintain that automatic coping is a fundamental part of both effective and ineffective coping. Furthermore, they believe that it may be impossible to determine whether many coping behaviors are automatic or planned.

#### A Comparison between Coping and Defense Mechanisms

Research on coping has its roots in ego-psychology (e.g. Folkman & Moskowitz, 2004). The defense mechanism, a closely related term, has evolved as a powerful explanatory term in the fields of psychopathology and personality within the psychoanalytic movement. Defense and coping are part of a broader category of psychological mechanisms that individuals utilize to cope with adversity. However, there are several fundamental differences between the two. Early efforts to distinguish between

defense and coping mechanisms date back to the 1960's, a time in which researchers began to consider "adaptive" defenses as coping. Still, within the defense tradition (Parker & Endler, 1996) researchers have emphasized the flexibility, reality orientation, and purposefulness of coping as opposed to the rigidity, and reality distorting quality of other defenses (Haan, 1965).

According to Cramer (1998), defense mechanisms such as repression (or the blocking of unwanted thoughts or desires from the consciousness) involve primarily unconscious automatic processes, whereas coping mechanisms such as looking for alternative interpretations or seeking social support, typically involve conscious effortful strategies that emphasize cognition. Second, in contrast to defense mechanisms, which are relatively stable, enduring individual characteristics, coping mechanisms are generally quite flexible, situation specific, and are less closely associated with personality. Finally, defense mechanisms were traditionally developed to understand psychopathology (Lazarus, 1993). In contrast, coping is generally considered part of non-pathological, normative reactions to stressors. The latter distinction is somewhat overstated, taking into account that, on the one hand, some strategies that are quite mature and healthy such as humor and sublimation have been discussed in the defense literature (e.g. Vaillant, 1993), and on the other hand, several negative and potentially pathological behaviors such as substance abuse and aggression are occasionally mentioned as coping strategies.

#### Dimensions of Coping

Problem focused vs. emotion focused. One of the most influential and widely researched distinctions in the field of coping is the problem-focused (or behavioral) vs.

emotion-focused distinction (Lazarus & Folkman, 1984). Problem-focused coping aims to deal with the source of distress and includes efforts to change actively something about the situation. According to Lazarus (1993), the function of problem-focused coping is to change the troubled person-environment relationship and not necessarily the environment itself. In contrast, emotion-focused coping involves efforts to regulate the emotional responses to the problem such as expressing unpleasant feelings. Emotion-focused coping tends to be dominant when there is little the individual can do to change the environment.

Despite its great influence on coping research, the problem-focused vs. emotion-focused approach has been criticized on the grounds that the two categories are overly broad and include too many specific ways of coping (Coyne & Gottlieb, 1996). It has also been suggested that the two poles are not mutually exclusive (Lazarus, 1996; Skinner, Edge, Altmen & Sherwood, 2003). Therefore, the same coping strategy can include both emotion-focused and problem-focused aspects. For example, using humor to resolve a conflict with a peer may serve as both a method to calm oneself down and to adapt a more positive world view (emotion focused) and to help in reaching a compromise (problem focused).

Approach (engagement) vs. avoidance (disengagement). Tobin, Holroyd, Reynolds, and Wigal (1989) distinguished between engagement and disengagement coping as a measure of the orientation of the response. Engagement responses include behaviors that are oriented toward the stressors or one's own emotions such as planning and preparing or expressing emotions. In contrast, disengagement involves behaviors that are oriented away from the stressors or the individual's emotions such as numbing and isolation. Compas et al. (2001) suggested that this dimension is broader than the



avoidance vs. approach dimension in that some responses that are aimed at disengaging from the stressors are not entirely avoidant. Roth and Cohen (1986) suggested that the approach-avoidance dimension in coping is a manifestation of individual differences in how one handles stressors. Avoidance represents the need to distance oneself from aspects of the stressor. For example, in denial, an avoidant coping strategy, the individual tries to avoid processing the stressor and accept its reality to protect oneself. In contrast, approach strategies allow a more complete processing of the stressor and an attempt to take control over the situation.

Primary vs. secondary coping. This dimension deals with the goals of the coping individual and has also been named passive vs. active coping (Morling & Evered, 2006; Walker, Smith, Garber & Van Slyke, 1997). Primary coping consists of efforts to reduce punishment by modifying objective conditions (e.g., environmental events, one's grade in a class, other people's behavior). Secondary coping consists of efforts to enhance reward or reduce punishment by modifying oneself (e.g., ones hopes, expectations, and attributions, interpretations of events) (Weisz, McCabe, & Dennig, 1994).

It is clear that many coping behaviors can be classified under more than one dimension. Furthermore, as noted by Skinner et al. (2003), a major source of confusion in the coping literature is that coping dimensions and classification are often defined in an ad hoc manner and tend to be neither exhaustive nor mutually exclusive.

### Coping Measurement

Since the initial line of research by Lazarus and Folkman (1984), over 100 different measures of coping have been developed and over 400 ways of coping have been identified (Skinner et al, 2003). The first generation of studies used primarily self-

report inventories in which individuals identify how they cope with a specific or a general stressful event. This approach has been criticized on several counts. Coyne and Gottlieb (1996) suggested that asking people to specify how they coped with a stressful event in their life is decidedly different from observing how people really cope. Furthermore, like all self-report questionnaires that are based on life events, coping inventories are subject to selective reporting and recall bias.

In the last two decades efforts have been made to understand the hierarchy of coping (Endler & Parker, 1996; Schwarzer & Schwarzer, 1996). Skinner et al. (2003) challenged the utility of traditional dimensions of coping. Pointing to a lack of a coherent construct of coping, they maintained that the absence of a consensus about core measurement categories and the immense diversity regarding conceptualization have created an impasse in the advancement and dissemination of our understanding of coping.

One of the major problems in the coping literature is that the terminology is used inconsistently. For example, the term “ways of coping” is used both to describe a highly individual response or strategy such as going shopping or talking to a best friend and to describe a group of behaviors or a dimension of coping such as emotional coping. Skinner et al. (2003) suggested a hierarchy of four levels that would fully account for the construct of coping. At the lowest level are coping instances or very specific behaviors. These are grouped into ways of coping. A cluster of coping ways constitutes a family of coping, for example, problem solving or information seeking. The 12 higher-order families of coping are organized around three classes, namely (1) coping with challenges and threats to competence and appraisals of opportunities for control, (2) coping with challenges and threats to relatedness and appraisals of the availability of other trusted

individuals, and (3) coping with challenges and threats to autonomy and appraisals of opportunity for self-determined action.

### Coping in Adolescence

There is a wide consensus that a significant and distinct period of time exists in human development marked by the transition from childhood to adulthood.

The *sin qua non* of adolescence is change and devolvement. Between the ages of 11 and 18 a remarkable sequence of physical, cognitive, social, and behavioral transformations occur in a relatively short period of time. According to Perkins (2001), the developmental tasks of adolescence include (1) achieving new and more mature relations with others, (2) achieving a masculine or feminine social role, (3) accepting one's physique, (4) achieving emotional independence from parents and other adults, (5) preparing for marriage and family life, (6) preparing for an economic career, (7) acquiring a set of values and an ethical system, and (8) achieving socially responsible behavior. Coping behaviors are particularly important in adolescence, given the variety of stressors that may be associated with achieving these developmental tasks. A teenager must simultaneously adjust to physical transformations, new intellectual abilities and demands, new peer relationships, and emerging sexuality. Although the cutoff of 18 appears arbitrary, theoretical and empirical advances in the last decade point out that the ages of 18-25 are a period of life identified as "emerging adulthood" that is fundamentally different from adolescence in its developmental tasks, life events, and life changes (Arnett, 2000).

From a developmental perspective, the types of events that are perceived as stressful vary with age. For example, family stressors constitute the majority of stressors

in children and young adolescents. However, in older adolescents peer stressors are the most significant. Frustrating, stress-inducing, or challenging life-events that seem uncontrollable at a younger age become controllable once the physical, cognitive, and social abilities provide a larger repertoire of coping responses. Similarly, the coping skills acquired in childhood and adolescence constitute the foundation on which adult coping skills are built.

In addition to the normative changes with which all adolescents need to cope, a large proportion of adolescents cope with serious stressors such as parental divorce, life in poverty, serious medical conditions, abuse and neglect, and parental substance abuse (Sandler, Wolchik, Mackinnon, Ayers, & Rossa, 1997). Understanding how adolescents cope with serious stressors in their immediate environment is particularly important because adolescents have increased risk for negative psychological outcomes such as depression, anxiety, suicide, and health problems (Boekaerts, 1996).

#### The Development of Coping Skills

Like other psychological qualities, coping strategies follow a developmental trajectory. Some indicators of coping that may reflect temperamental differences such as reactivity and inhibition control are present at the time of birth. For example, Davis and Emory (1995) found that hours after birth newly born boys exhibited more physiological and behavioral reactivity to stress than newly born girls.

Coping abilities closely follow changes in motor skills, memory, cognitive processing, and the capacity for metacognition and planning (Eisenberg, Fabes, & Guthrie, 1997). In childhood and adolescence, the repertoire of coping behaviors grows with age. For example, the ability to generate alternative solutions to problems and the

ability for means-end thinking gradually emerge between the ages of 8 and 10 (Spivack & Shure 1982). Bernzweig, Eisenberg and Fabes (1993) found that compared to kindergarten children, second grade children used more cognitive avoidance and distraction strategies and sought less support when dealing with stressful situations.

Adolescents learn to cope from four main sources: previous personal experience, the modeling of peers, the perception of what makes them personally vulnerable, and social persuasion by individuals such as peers and parents (Ireland, Boustead, & Ireland 2005). One line of research has focused on the developmental changes in coping abilities in adolescence as a function of age. Changes in cognitive abilities and awareness of the consequences could influence changes in coping.

Several cross-sectional studies have supported this hypothesis. For example, Stern & Zevon (1990) found that younger adolescents (ages 13-17) used more emotion-focused coping than older adolescents (18-20). Considering the rapid development of mental and social resources, it is not surprising that older adolescents use a larger repertoire of coping responses than younger adolescents (Eisenberg, Fabes, & Guthrie, 1997).

#### Dimensions of Coping in Adolescence

One important question regarding adolescent coping is whether traditional adult dimensions of coping accurately capture the coping responses of youth. This issue is especially important since, traditionally, studies and theories of childhood and adolescent coping have tended to accept the dimensions used for adults rather than develop models that pertain to children and adolescents (Compass et al., 2001). In particular, the lack of adequate construct conceptualization, a problem that plagues the coping literature in

general was emphasized. In addition, many youth coping scales have been put together in a post hoc fashion and include items that do not fit together theoretically or conceptually.

Ayers, Sandler, West, and Roosa (1996) presented a multidimensional model of the coping process in children and adolescents. In a series of studies they provided support for a 4-factor model of coping in adolescence that consists of active coping, distraction, avoidance, and support seeking. A somewhat different conclusion was reached by Wadsworth and Compas (2002), who point to 3 major dimensions of coping in children and adolescents: (1) primary control coping, which includes strategies to alter the problem or the emotions associated with the problem, (2) secondary control coping, which includes attempts to adapt to the stressor such as cognitive restructuring or positive thinking, and (3) disengagement coping, which includes strategies to orient oneself away from the stressor such as avoidance, denial, or wishful thinking.

Summarizing a large body of research on coping strategies of youth, Fields and Prinz (1997) concluded that adolescents (1) most frequently use emotion-focused strategies (e.g. positive self talk) when faced with medical stressors, (2) use more approach-oriented than avoidance strategies, and more emotional coping when faced with social stressors, (3) use more problem-focused approach when faced with academic stressors and, (4) use a wide range of coping strategies when faced with an unidentified or a “general stressful event.” These findings suggest that the coping strategies in adolescence are flexible and influenced by the situation.

## Gender

Although much of the research on coping in adolescence includes gender representative samples, there is little theoretical advancement in understanding how

gender differences influence coping. The importance of understanding the interaction between coping and gender is underscored by the fact that female adolescents typically report more stressful events than male adolescents (Griffith, Dubow, & Ippolito, 2000). This finding may reflect true differences in the prevalence of stressors. However, it may also reflect gender differences in the interpretations of events. Seiffge-Krenke (1990) found that female adolescents tend to assess normative school- and family-related daily hassles as more threatening than male adolescents. Girls tended to report the same problems as more complex and continued to think about them for longer.

Regarding the use of different coping strategies, girls have been found to utilize more approach-oriented coping and less avoidance coping in comparison to boys (Griffith, Dubow, & Ippolito, 2000; Phelps & Jarvis, 1994).

#### Delinquency and Court Involvement in Adolescence

Official and self-report data are generally in agreement that delinquency peaks between the ages of 15 and 17 (Quinsey, Skilling, Lalumiere, & Cariag, 2004). This may reflect a peak of the prevalence (i.e. more individuals engage in delinquency at this age) or a peak of incidence (i.e. an increased rate of offending.) The juvenile (ages 10-17) proportion of violent crimes in the U.S. involving an arrest between 1997 and 2003 constitutes about 12% of all arrests, 5% of arrests for murder, 12% of arrests for rape, 12% of arrests for assaults, and 14% of arrests for robberies (Snyder, 2002).

Contrary to common belief, juvenile offending is on the decline (Krisberg & Wolf, 2005). The 1960s and most of the 1970s were clearly the worst decades for juvenile crime. Between 1960 and 1975 the number of juvenile arrests grew by nearly 300 percent, more than twice the adult rate (Goldstein & Glick, 1994). The Violent Crime

Index for Youth (serious crime such as rape, murder, and assault) increased through the late 1980s and the early 1990s, peaked in 1994, and has been on the decline since (Krisberg & Wolf, 2005). General arrest rates for crimes committed by juveniles have decreased by 50% between 1993 and 2001 (Flannery, Hussey, & Jefferis, 2005). Although the exact reasons for the decline in juvenile offending remains unknown, it may be associated with the reduction of violent crime in several large urban areas and the improved enforcement of gun laws (Krisberg & Wolf, 2005).

### Theories of Delinquency

A comprehensive review of theories that explain delinquency is beyond the scope of this investigation. Several comprehensive volumes have been published that review traditional and integrative approaches (e.g. Lahey, Moffit, & Caspi, 2003; Quinsey et al., 2004). Below is a review of the most relevant perspectives for the current investigation.

The psychopathology perspective. Adolescence has been recognized as a period of particular vulnerability for a range of negative emotional and behavioral outcomes. The frequent oversight of the link between psychopathology and delinquency in adolescence has led some to identify it as the “neglected risk factor in juvenile delinquency” (Goldstein, Olubadewo, Redding, & Lexcen, 2005 p.85). Epidemiological studies suggest that many, and as much as half of delinquent youth, meet diagnostic criteria for DSM-IV-TR (APA, 2000) psychiatric disorders (Kashani, Jones, Bumby, & Thomas, 1999; Vermeiren, 2003). Similarly, adolescents in inpatient units exhibit a history of delinquent behaviors in greater proportion than the general adolescent population. Commonly diagnosed disorders in delinquent individuals include Conduct



Disorder, Oppositional Defiant Disorder, Attention Deficit/ Hyperactivity Disorder, Depression and Substance Abuse and Dependency (Redding & Lexcen, 2005).

Our understanding of how delinquency and psychopathology are related is limited by several methodological and conceptual problems that are frequent in psychological investigations. First, psychiatric diagnoses and delinquency are often confused, causing the proportion of comorbid delinquency and psychopathology to be inflated. For example, the two most prevalent psychiatric diagnoses among delinquents, Conduct Disorder (CD) and Oppositional Defiant Disorder (ODD), include delinquent behaviors as part of the diagnostic criteria. Thus, all 15 behaviors that are described as the core symptoms of CD (APA, 2000) involve acts that may lead to an arrest. It is not surprising, therefore, that compared to the general population where the prevalence of CD ranges from 6% to 16% for boys, and from 2 to 9.2% in girls, in delinquent youth the vast majority, and up to 100% of the participants in some studies meet criteria for this disorder (Vermeiren, 2003).

Second, most studies fail to use a common, well-defined approach to what constitutes delinquency. The criteria for delinquency range from a history of one felony (Chiles, Miller, & Cox, 1980) to a history of serious offenses, multiple property felonies, violence, rape, and even murder (Steiner, Garcia & Matthews, 1997; Vermeiren, 2003). Although measures of seriousness and persistence of offending have been developed (e.g. Wolfgang, Figlio, Tracy, & Singer, 1985), they are seldom used in systematic ways in studies of delinquency and psychopathology.

Third, the extent to which childhood and adolescent psychopathology precede delinquency and therefore should be considered as risks factors for future delinquency is

unclear. The majority of the findings linking delinquency and psychopathology are epidemiological and correlational in nature and thus shed very little light on whether the symptoms precede delinquency or vice versa. Better evidence is obtained from longitudinal studies. For example, ADHD and delinquency are highly co-morbid and as many as 35% of all adolescents diagnosed with ADHD are also diagnosed with a comorbid CD (O'Shaughnessy, 1992). A diagnosis of ADHD is considered a developmental risk factor for antisocial and criminal behavior in adolescence and adulthood. Although it possible that conduct disorder and not ADHD account for the delinquent behavior itself, ADHD can account for the poor intellectual control that aggravates the antisocial behaviors (Goldstein et al., 2005).

Similarly, co morbidity of delinquency and internalizing psychopathology is extremely frequent (Ryan & Redding, 2004). For example, depression is the most frequent internalizing problem among delinquent youth (Goldstein et al., 2005), particularly for female juvenile offenders (Lexcen & Redding, 2000). Depressed children and adolescents are more likely to exhibit delinquent behaviors such as stealing and physical aggression (Loeber & Keenan, 1994). However, whether or not depression typically precedes delinquent behavior remains unclear along with the causal mechanisms for the association (Loeber & Keenan, 1994; Ryan & Redding, 2004).

The developmental perspective. Several theories have emphasized the developmental trajectory of delinquency. Moffitt (1993) suggested two prototypes for the development of delinquency. The life-course-persistent prototype “has its origins in neurodevelopmental processes, begins in childhood, and continues to worsen thereafter” (Moffitt, 2003 p.49). Neurodevelopmental variation can be manifested in cognitive

deficits, difficult temperament, and hyperactivity. These deficits interact with inadequate parenting, poor family relations, and poverty. In the years leading to early adulthood the relationship between the individual and the environment gradually becomes characterized by aggression and antisocial behavior that continues through midlife.

In contrast, adolescence-limited-offending originates in the social process, begins in adolescence, and disappears in young adulthood (Moffitt, 2003). The main differentiating factor for this group lies in the fact that their preadolescent development was normal. Moffitt (1993) views the years of adolescence as the “maturity-gap” years, a concept that reflects psychological difficulties that arise from the gap between biological change and the lack of access to mature responsibilities. Delinquency, therefore, becomes a way to achieve autonomy from the parental figures, to receive the respect of peers, and to hasten social maturation.

Landmark studies on delinquency conducted in the 1980s and 1990s supported by the Office of Juvenile Justice and Delinquency Prevention (OJJDP) under the Program of Research on the Causes and Correlates of Delinquency (Huizinga, Loeber, & Thornberry, 1993) attempted to identify developmental pathways for juvenile delinquency. Using five waves of data of Self Report Delinquency (SRD; Elliot, Huizinga, & Ageton, 1985) of youth aged 7-17, in multiple research sites around the country, over 4000 participants were followed at regular intervals for a decade. Results from these studies identified 3 developmental pathways of disruptive and antisocial behavior in youth (Loeber et al., 1993). In all three pathways there is an orderly progression in which less serious delinquency precedes more serious delinquency.

The Authority Conflict pathway begins with stubborn behavior in childhood followed by defiance and disobedience and gradually progresses to more serious behaviors such as truancy. The Overt Pathway begins as minor childhood aggression such as annoying others or bullying them, progresses to physical fighting, and finally to violent crimes such as physical attacks or rapes. The Covert Pathway starts with minor covert behaviors such as shop lifting, progresses to property damage such as vandalism, and finally to serious property crime such as burglary.

The developmental perspective of this model is emphasized by the following features (Kelley, Loeber, Keenan, DeLamatre, 1997): (1) the majority of youth who display behaviors in a pathway will have had a history of behaviors characteristic of earlier stages, (2) as individuals progress along the pathway an increasingly smaller number of individuals reach the more serious level of behaviors, and (3) more serious behaviors are usually added to behaviors of earlier stages but do not typically replace them.

The risk and protective factors perspective. One of the more influential approaches in understanding the reasons for delinquency focuses on identifying which risk factors are associated with elevated levels of delinquent and antisocial behaviors (Herrenkohl, Maguin, & Hill, 2000). Risk factors can be defined as factors that increase the likelihood of a negative outcome (DeMatteo & Marczyk, 2005). This definition pertains to indicators or correlates of negative outcome as well as to factors that are causally related to it. Protective factors can be defined as anything that is associated with decreased likelihood of negative outcome. Some researchers view protective factors as the mere absence of risk factors (Stouthamer-Loeber, Loeber, Wei, Farrington, &

Wikstrom 2002). Protective factors reduce negative outcome by means of interacting with risk factors and moderating their effects or by means of direct influence (DeMatteo & Marczyk, 2005). Below is a review of the major risk and protective factors for juvenile delinquency. Because of their importance to the current investigation gender and ethnicity will be considered separately from other risk factors.

The ratio of protective and risk factors changes with age. For example, Stouthamer-Loeber et al. (2002) found that in early and mid childhood, youth possess more protective than risk factors. These protective factors tend to diminish or disappear, which is reflected in a change in the balance in favor of risk factors in adolescence.

One class of risk factors includes environmental factors such as characteristics of the community and the living environments (Loeber & Farrington, 2000). For example, growing up with a low socioeconomic status or in a dangerous or violent neighborhood is associated with higher rates of offenses and convictions (Farrington, 1989; Loeber & Farrington, 2000). Only a few environmental protective factors have been identified. A strong community infrastructure that provides opportunities to participate in positive social activities and produces a sense of community cohesion is associated with reduced levels of crime (DeMatteo & Marczyk, 2005).

Several family characteristics have been found to be associated with delinquency. Poor parenting skills, large families, family discord, child maltreatment, aggression within the family, early parental loss, and emotional deprivation have all been associated with increased risk for antisocial and delinquent behavior (Kumpfer & Alvarado, 2003; Loeber & Farrington, 1998). Family-related protective factors include the absence of significant family disturbance, close parental supervision, open communication, and a

good relationship with the parents (Hoge & Andrews, 1996; Stouthamer-Loeber et al., 2002).

School-related variables such as academic performance and social experiences in school may also be implicated in delinquency. For example, lack of interest in school and poor academic performance have been linked to more frequent associating with delinquent peers and engaging in antisocial behavior (Maguin & Loeber, 1996). In contrast, a high education quality, good academic achievement, and commitment to school have been recognized as protective factors against delinquency (Hoge & Andrews, 1996)

Because adolescence is a time in which developing relationships with peers and peer influence are at their peak, peer groups play a crucial role in the initiation and maintenance of problem behaviors in children and adolescents (Windle, 1999). Several studies that examined a range of problematic behaviors such as substance abuse, antisocial behavior, and delinquency have identified peer-related variables such as delinquent behavior of peers, attachment to peers, and time spent with peers as predictors of delinquency and antisocial behavior (Lipsey & Derzon, 1998; Stouthamer-Loeber et al., 2002).

Of particular importance to the current investigation are individual-level risk and protective factors. These developmental factors rarely operate alone and tend to interact with other environmental factors. Individual risk factors include prenatal and perinatal complications. For example, a history of a birth delivery complication is occasionally found in higher proportions in violent offenders than in the general population. However, other studies did not replicate this finding (Farrington, 1997). Other psychological and

behavioral characteristics that have been identified as risk factors include low I.Q., delayed language development, hyperactivity, impulsivity, restlessness, risk taking, antisocial beliefs, greater negative emotionality, and substance abuse (DeMatteo & Marczyk, 2005; Hawkins et al., 1998; Kashani et al., 1999; Loeber & Farrington, 1998). Established individual level protective factors include high intelligence, possibly through its relationship to academic success (Kandel et al., 1988), and a strong social orientation (DHHS, 2001).

Despite the promise in the risk (and protective) factors approach to identifying indicators of delinquency, it is much less useful to explain mechanisms or causal factors. Rutter (2003) maintains that risk factors by themselves are not informative about the nature of the risk. Objective risk factors and threats alone do not lead to dysfunction and negative outcomes. For example, growing up with a low socioeconomic status can be related to increased risk for delinquency because of a lack of opportunities for solid education, because it is associated with parental psychopathology and substance abuse, because of increased risk to exposure to criminal activities, or through its association with negative psychological factors such as low self-esteem and depression.

#### Gender Differences in Juvenile Delinquency

Until recently, juvenile delinquency theories focused almost exclusively on boys. Much of the literature on juvenile delinquency has ignored, denied, or trivialized this problem in girls and thus many studies of risk development and intervention excluded females (Gorman-Smith & Loeber, 2005). The criminology research literature is full of statements implying that the “nature of the female” makes women less inclined toward crime (Chesney-Lind & Shelden, 2004). One of the most frequently documented

individual differences across countries and cultures in the research of antisocial behavior is that women are less aggressive than men (Moffitt, Caspi, Rutter, & Silva, 2001; Quinsey et al., 2005). This phenomenon is exemplified by findings that females are less frequently diagnosed with ODD and CD (Vermeiren, 2003), that the proportion of females arrested for all offenses except for prostitution is lower than that of males (Chesney-Lind & Shelden, 2004), and that men are more likely than women to be involved in criminal and non-criminal violence (Bettencourt & Miller, 1996). Delligatti, Akin-Little and Little (2003) maintained that the reason for under diagnosis of CD in females is that aggression in young women tends to take a relational form that is more subtle and difficult to discover by parents and school personnel.

Interestingly, major increases in the last decade in the proportion of female juvenile arrests have occurred. In 2000, the proportion of female arrests among juveniles rose from 22% to 27%, compared to a decade earlier (Chesney-Lind & Shelden, 2004). In addition, studies have begun to show that girls participate in the same broad range of antisocial behaviors (e.g. Elliott, 1994). Gradually it became clear that women are involved, although possibly to a lesser degree, in the full range of delinquent behaviors.

Because the majority of explanatory models of delinquency have been developed using exclusively male samples, recent attempts have been made to examine whether these models are applicable to the way that delinquency develops in girls. For example, it has been shown that Moffitt's (1993; 2003) developmental perspective described earlier is much less applicable for girls since life-course-persistent delinquency in females is extremely rare (Moffitt & Caspi, 2001).



Regarding delinquency risk factors, research suggests that the same childhood risk factors apply for both boys and girls (Rowe, Vazsonyi, & Flannery, 1995). Quinsey et al. (2004) concluded that theories of delinquency should account for the fact that gender differences in risk factors exist only for the most aggressive and serious offenses.

A recent attempt to test the applicability of the 3 delinquency developmental pathways in a nationally representative sample of girls (Gorman-Smith & Loeber, 2005) revealed that despite the fact that girls were less likely to be involved in all types of delinquency, they followed similar developmental pathways of offending and antisocial behavior.

It is clear that current and future psychological investigations of delinquency should include female participants, avoid making the assumption that results from studies that included exclusively male samples are applicable for girls, and focus on comparing characteristics and correlates of male and female juvenile delinquency.

#### Coping and Delinquency

As noted earlier, in most etiological models of delinquency there is at least some emphasis on stressors. How do stressors contribute to delinquency? According to general strain theory (Agnew, 2001), strain is a “situation in which the individual is not treated in the way he or she would like to be treated” (p.48). Objective strains are events or conditions that are disliked by almost all members of a group. Subjective strains are events or conditions that are disliked by the individual who is experiencing them. Strain of both types increases the possibility of negative emotional outcomes. Strain theory suggests that delinquent activity reduces the strain caused by exposure to negative stimuli. Because the coping literature uses both the terms “strain” and “stress”, for

purposes of consistency the term stress will be used for the cumulative experience that is caused by exposure to stressors.

Youth who are subjected to a range of stressors in the environment need to develop coping skills. The importance of possessing coping skills when facing stressors is highlighted in the finding that the majority of youth who grow up in high-risk environments overcome hardship, live a productive and crime-free life, and are neither delinquent nor pathological (Dempsey, 2002).

#### Coping as a Moderator and a Mediator

The exposure to environmental stressors such as poverty, a violent environment, poor parenting and parental abuse, and trauma does not directly create negative psychological and behavioral outcomes such as psychopathology and delinquency but rather, outcome measures are associated with stressors and stress through mediating and moderating variables. Coping has been conceptualized as one possible link in the relationship between stressors, psychopathology, and delinquency. Coping can protect us from the negative influences of stressors directly, by means of eliminating or changing the source of the stress, or indirectly by changing how we respond to stressors that cannot be eliminated (Zeidner & Sakalofske, 1996).

Coping as a moderator. As a moderator, coping is viewed as pre-existing so that the association between stress and psychopathology depends on what type of coping a person tends to enact (Wadsworth, Raviv, Compas, & Connor-smith, 2005). Sandler, Tein, and West (1994) suggested a stress-buffering moderation model, according to which the relation between stressors and negative outcomes is attenuated when an individual utilizes effective coping strategies. In contrast, the stress-amplification

moderation suggests that the influence of stressors would increase when an ineffective coping strategy increases. Their findings pointed to active coping (namely cognitive decision making, direct problem solving, seeking understanding, and cognitive restructuring) as a moderator of the relationship between parental divorce and conduct problems.

The potential of coping as a moderator of the influence of an impoverished and economically strained environment has also been investigated (Wadsworth & Compas, 2002; Wadsworth et al., 2005; Wills, McNamara, & Vaccaro, 1995). This line of research is particularly important in light of the variety of hardships, daily hassles, and chronic trauma that plague the lives of adolescents who live in economically strained environments (Kiser & Black, 2005).

The moderating effect of coping on the relationship between community violence and delinquent acts has also been examined. In a study of 678 inner-city six-graders, Rosario, Salzinger, Feldman, and Ng-Mak (2003) found that avoidant coping behaviors such as “try not to go to certain places”, and “not look people in the eye” moderated the effect of a violent community on delinquency. Boys who engaged in high levels of avoidant coping behaviors displayed fewer delinquent activities when exposed to community violence. Interestingly, the pattern was reversed for confrontational coping such as “plan to get back at someone,” which was associated with increased risk for delinquent behavior for both boys and girls.

Coping as a mediator. A mediation model of coping assumes that coping is a flexible intervening process that is directly influenced by the stressor and subsequently drives the psychological outcome. Thus, a specific coping behavior generates the

outcome and is not merely associated with it. Complete mediation makes a powerful assumption that once coping has been controlled for the relationship between stressors and psychological outcome disappears completely. Partial mediation would suggest that controlling for the coping behavior would significantly reduce the relation between the stressor and the outcome.

Research on the role of coping as a mediator is important in helping us understand the psychological process through which coping attenuates the relationship between stressors and psychological outcome. Several authors stressed the importance of effective coping in mediating multiple ongoing threats in the home environment (Kiser & Black, 2005). Dempsey (2002) demonstrated that negative coping mediated the effect of a violent environment on PTSD, depression, and anxiety. Similarly, Spaccarelli (1994) discussed confrontational coping as a mediator of the relationship between exposure to violence and violent behavior. Wadsworth et al. (2005), in a study of 57 parent-adolescent dyads, demonstrated that secondary control coping strategies such as cognitive restructuring and acceptance mediated the influence of stressors on internalizing and externalizing symptoms. An important implication for the development of coping strategies across the life span was that for the parents in the study, coping strategies appeared to be moderators rather than mediators. It is possible that behaviors that can still be influenced by the circumstances in adolescence become “set in stone” and stabilize in adulthood.

Several studies found evidence for the mediating effect of coping on economic hardship and poverty (Wadsworth & Compas, 2002). Results from these studies indicate that coping may attenuate the negative outcomes such as internalizing (depression,

anxiety) and externalizing psychopathology (substance abuse, conduct disorder). In particular there is evidence that secondary control such as acceptance and cognitive restructuring may be especially effective.

As noted by Wadsworth & Compas (2002), it is likely that whether coping serves as a moderator or mediator depends on the type of coping, the type of stress, and the type of outcome measured even within the same study (e.g., Sandler et al., 1994).

An investigation of the moderating and mediating effects of coping may carry strong implications for intervention that revolve around teaching specific coping strategies for high-risk adolescents.

#### Adaptive vs. Maladaptive Coping

Inherent to the issue of the moderating and mediating role of coping mechanisms of delinquent youth is the question of adaptive versus maladaptive coping. Despite the early emphasis on distinguishing between the coping behavior and the outcome of coping, several researchers have attempted to incorporate “good news” vs. “bad news” coping dimensions into their classification (Skinner et al., 2003 p.231).

The absence of a widely accepted nomenclature in the field of coping often results in conceptual confusion in terminology. Of particular importance for this discussion is the distinction between the approach vs. avoidant dimension and the adaptive vs. maladaptive dimension. In adolescence, avoidant coping responses consist of behaviors such as distraction, self criticism, substance abuse, blaming others, denial, and wishful thinking. Avoidant coping may be particularly important for understanding the relationship between a high stress environment and delinquency. Avoidant behaviors

fulfill the need to distance oneself from the pressure of a stressful situation. Therefore such behaviors may be effective in dealing with short-term stressors.

In contrast to the avoidant-approach distinction, the distinction between adaptive and maladaptive coping can be understood as an answer to the question “how effective is the coping behavior in improving the adaptation outcome?” (Zeidner & Sakolofske, 1996). There is some evidence to support the intuitive hypothesis that avoidant coping is mostly maladaptive and approach coping is mostly adaptive. At the same time, most avoidant coping behaviors could be adaptive in some circumstances. For example, in the context of an extremely violent neighborhood such behaviors that are included in mental and behavioral disengagement coping (e.g., avoiding certain places and events, distancing oneself from the problem) may be particularly important in maintaining psychological and physical health (Grant et al., 2000). Therefore, whether or not avoidant coping is adaptive can depend on situational and personal factors.

The complexity of the relationship between the high stress environment, coping and outcome for youth at high risk has been a subject of debate. On the one hand, it has been suggested that in the context of a high-stress environment, behaviors such as withdrawing, yelling, distraction, or substance abuse may provide short-term, immediate relief. At the same time, chronic exposure to an inner-city violent environment contributes to the development of negative coping strategies such as blaming others or yourself, doing nothing, or avoiding others, which act as a conduit to psychological outcomes such PTSD, anxiety, depression, and conduct disorder (Dempsey, 2002; Sandler et al., 1994).

Interestingly, Kliewer, Lepore, Oskin, and Johnson (1998) suggested that the use of avoidant coping behaviors at a young age may influence negative outcomes by preventing youth from engaging in more approach coping behaviors. For example, if a child uses aggression or becomes disengaged from a situation it can prevent her from gaining access to social support and sources of information that may help her engage in positive coping.

#### Delinquency as a Form of Coping

The view that delinquency, particularly when it is time-limited, is itself an effective coping behavior was presented by Brezina (2000) and stands in clear contradiction to the more widely accepted notion that delinquent behavior is always maladaptive. Based on the model described earlier that views delinquency as a reaction to stress (Agnew, 1992), this approach maintains that delinquency is an effective way (1) to negate the consequences of lack of control over the situation, (2) to retain a positive self-evaluation at a time that one is particularly vulnerable for a decline in self image, (3) as protection against a negative affect or depression.

#### Coping in Court-Involved Adolescents

Although research on the relationship between coping and delinquent behavior has been conducted, targeting court-involved adolescents as a research population remains a task largely unaccomplished. Large-scale delinquency studies (e.g., Pittsburg Youth Study; Loeber, Farrington, & Stouthamer-Loeber 1998) do not distinguish between those who are or are not involved with the juvenile justice systems. As a research population, court-involved adolescents, include individuals who have been arrested or who are facing charges for committing, or allegedly committing offenses.

Several methodological and conceptual advantages may be involved in focusing on court-involved as a sub-group in the context of coping research. First, community samples that are non court-involved are likely to include individuals who demonstrate adolescent-limited offending, a pattern that has been recognized to be substantially different from life-persistent delinquency. In contrast, it is likely that samples of individuals who are involved with the juvenile justice system, especially those who are incarcerated, include a larger proportion of individuals who are life-course persistent offenders. Moreover, the introduction to the juvenile system itself may create a chain of events that increases the likelihood of developing a more serious and persistent pattern of offending.

Second, in studies of samples from the general adolescent population, the rate and type of delinquency are assessed exclusively by using self-report measures in an attempt to measure all delinquent activity. These studies do not differentiate between self report delinquent behaviors and those that have been documented in police and court records. This approach has been suggested to be advantageous because most delinquent behavior is not documented in police records and thus, soliciting self-reports provides a higher base rate for research purposes (Thornberry & Krohn, 2000). At the same time, relying solely on self-report measures is subject to reliability problems resulting from memory inaccuracies, selective reporting, bragging, and lack of cooperation. Targeting a population with a documented offending history can potentially provide an important way to supplement self-report measures for purposes of comparison and validation.



Third, because of the strong relationship between delinquency and risk factors compared to normative samples, court-involved adolescents may be a self-selected group that has been exposed to a substantially larger number of stressors and risk factors.

Fourth, adolescents who are involved with the justice system are a subgroup who ipso facto tends to respond to stressors in ways that are considered socially inappropriate (Brezina, 2000; Greve, 2001). Thus, it is likely that this group possesses substantially different repertoire of coping behaviors.

Fifth, court-involved adolescents may be particularly at risk for negative psychological outcomes. Individuals who become involved in the juvenile justice system and are confronted with their behavior may be at a point in their lives in which coping behaviors that were previously adaptive may need to be rapidly adjusted to fit new situations such as a restriction in the form of probation conditions or incarceration. Moreover, compared to adults who are involved with the legal system, adolescent offenders are at a higher risk to develop sustained mental health problems as a result of managing the added stress of arrest and legal consequences (Ireland et al., 2005).

#### Research on Delinquency and Coping

Only a few coping studies attempted to investigate coping in court-involved adolescents. Ruchkin, Eisenman, & Hagglof (1999) compared the coping styles of 178 delinquent adolescents in a correction facility in Russia to 91 non-delinquent adolescents (ages 15-18). Coping was assessed using a self-report inventory that consists of four subscales: assistance seeking, cognitive-behavioral problem solving, cognitive avoidance, and behavioral avoidance. Findings supported coping as an important differentiating factor between the two groups. Delinquent youth scored higher than non-delinquent

youth on both cognitive and behavioral avoidance. A strong relationship was found between higher levels of use of alcohol and marijuana and avoidant coping. Similar findings regarding the association between avoidance coping and negative psychological outcome was found in a study of 270 incarcerated Canadian adolescents (Eftekhari, Turner, & Larimer, 2004).

Two recent investigations of coping among incarcerated youth in the United Kingdom (Brown & Ireland, 2006; Ireland et al., 2005) provided several important findings to promote understanding of coping in adolescents who are involved with the justice system. First, avoidance coping, characterized by detaching oneself from stressors (e.g., just take nothing personally), predicted more rapid adjustment to incarceration and was associated with a more rapid decrease in anxiety and depression symptoms. In contrast, emotional coping was associated with more symptoms of anxiety and depression. Second, changes in coping styles of incarcerated adolescents from dominance of emotional coping in the first day of incarceration to detachment six weeks later were associated with greater psychological health. The latter finding is particularly important because it provides indirect evidence of the flexibility and ability of delinquent youth to adapt their coping styles as a function of environment, circumstances, and the demands of their environment. Third, a cross-sectional comparison between young offenders (age range 18-21) and juvenile offenders (age range 15-17) showed that young offenders tended to use more emotional and avoidant coping styles than juvenile offenders.

Despite the importance of this line of research to illuminating the coping styles of delinquent populations, it should be qualified that the corrective residential context in

which all the above studies were conducted is considerably different from the general adolescent research and research on delinquents who are not incarcerated.

### Juvenile Delinquency and Ethnicity

The terms race, ethnicity, and culture are often used in an inconsistent and confusing manner in the literature. Okazaki & Sue (1995) noted that ethnicity, is often used as a variable under the assumption that individuals of similar ethnic backgrounds share common psychological characteristics associated with culture that relate to personality and psychopathology. Terminological confusion is further complicated by the use of the term cross-cultural to refer to individuals who are first or second generation in the United States or who are bilingual (Garrido & Velasquez, 2006). For purposes of consistency and regardless of the term used in a specific study, the terms “ethnic” and “ethnicity” are used to refer to differences between the three major groups represented in the current study: Caucasians, African-American, and Hispanics.

Several researchers suggested that adolescents of ethnic minority are at high risk for negative psychological outcomes (Gonzales & Kim, 1997). Reliable epidemiological data on the prevalence of mental health problems in different ethnic groups is not readily available. Many studies do not provide an ethnic breakdown of the sample, or are subject to biases such as flawed sampling, differences in self-reports, and variations in seeking services. According to the Department of Health and Human Services, (DHHS, 2001), estimates of emotional and behavioral problems in youth under 19 ranges from 17.6%-22%, compared with 21% in adults. Both African-Americans and Hispanics are identified as being at higher risk for mental health problem than the general population. For Hispanic youth the DHHS report emphasizes higher rates of anxiety and depressive

disorders as well as higher rates of suicidal attempts. These data are qualified because Hispanic and African American adolescents are over-represented in high-need, low-socioeconomic, and incarcerated populations.

Ethnic differences in delinquent behaviors have also been frequently reported. African-American youth are disproportionately represented in all stages of involvement with the juvenile justice system. For example, they represent about 40% of all arrests of youth despite being only 12.8% of the youth population of the United States (Redding & Arrigo, 2005; U.S. Census Bureau, 2005), and are likely to engage in delinquent behaviors more than Hispanics or Caucasian youth (Sussman, et al., 1999). Delinquency rates in Hispanic youth, representing 12.5% of the U.S. general population, also tend to be higher than those of Caucasian youth. Most notably, compared to the other two groups, Hispanic youth are more likely to become members of gangs (Cook & Moore, 1999).

The disproportional representation of minority groups in reports of delinquency has somewhat declined in the last decade. Similarly, Loeber, Keenan, and Zhang (1997) found no consistent ethnicity differences regarding developmental pathways of delinquency. However, the rate of arrests of African American youth for violent crime is still more than three times than that of Caucasian youth (Snyder, 2003). It has been suggested that this discrepancy stems, at least partially, from discrimination and unequal treatment by the police and the justice system. However, Redding and Mrozoski (2005) conclude that the over-representation of this group is so substantial that it reflects, at least to some extent, real differences in offending.

In an effort to explain ethnic disparity in youth offending, Gonzalez and Kim (1997) suggested that the “cultural ecology” in which individuals live plays a significant role in mediating between ethnicity and psychological health in minority children and adolescents. Ethnic minority status may be related to poor psychological outcome through context-shaping indicators such as growing up in urban areas of low socioeconomic status, high-risk communities, and racial discrimination, which are proxies for higher rates of delinquency (Hawkins, Laub, Lauritsen, & Cothorn, , 2000). The authors based their conclusion on the following findings: (1) high rates of delinquency persisted in certain urban areas regardless of the ethnic population composition, (2) rates of delinquency within racial or ethnic subgroups varied across urban communities, and (3) rates of delinquency did not increase in areas with less crime as ethnic subgroups migrated to such communities. Additional support for the cultural ecology theory is lent by studies that show that after controlling for SES and neighborhood factors very few or no differences are found in prevalence of most conduct problems between the three ethnic groups (Loeber et al., 1998)

Research has been sparse on how individuals from ethnic minority groups and ethnic youth in particular, cope with stressors. Models of coping were developed using predominantly Caucasian samples and have either ignored contextual, cultural, and ethnic variations or discussed them in a cursory manner. In most studies, little or no attention has been paid to the ethnic composition of the sample or to group ethnic differences (Compas et al., 2001; Rasmussen, Aber, & Bhana, 2004; see Rosella, 1994 for a review). Zaff, Blount, Phillips, and Cohen (2002) suggest that that the few studies that have

included ethnic differences have adopted an insufficient understand how ethnic identity is associated with coping.

Understating the relationship between coping and ethnicity is important for several reasons. First, as noted above, individuals from minority groups are at high risk for facing environmental stressors. Therefore, the way in which they cope may be an even stronger intermediary factor in the relationship between stressors and negative outcome than in the general population. Second, exploring diverse populations and their living environments can potentially address currently unanswered questions regarding the interaction between stable and contextual factors in coping. Finally, such research may be able to better assess the type of unique stressors with which minority groups deal that stem from the interface of the majority group such as coping with acculturation, discrimination, and social injustice. For example, Hughes, Rodriguez, & Smith (2006), in a review of the literature on ethnic socialization, or how parents transmit information and values about ethnicity to their children, noted the importance of discrimination as a major stressor with which ethnic minority youth need to cope.

Several recent investigations have begun to explore within-group variations of coping in an ethnic minority as well as between-group comparisons to Caucasian youth. In general, the findings present a mixed picture of both similarities and differences in coping across ethnic groups. It appears that that the type and frequency of coping behavior used varies across stressors. Zaff, Blount, Phillips, and Cohen (2002) found that the type of a hypothetical stressor (e.g., a medical problem, a test situation, or a social criticism) changed the type of dominant coping across all three ethnicity groups.

In a sample of 140 African-American and Hispanic eleventh and twelfth graders that assessed coping with violence in the community, Rasmussen et al., (2004) found that the majority of participants reported a variety of coping strategies, with positive reappraisal being the most common and confrontive coping the least. Regardless of the level of crime in the neighborhood, African-Americans sought more social support and utilized more positive reappraisal than Hispanics.

Cultural adaptation, or coping as a response to ethnically linked stress, such as discrimination or the need for bi-cultural competence, may also be central. In particular, religiosity as a coping mechanism may play an important role. Several studies have found that, compared to Caucasians, African Americans and Hispanics tend to employ more praying, and spiritual coping (Codega, Pasley, & Kreutzer, 1990; Tarakeshwar, Hansen, Kochman, & Sikkema, 2005).

Ethnic minorities utilize community resources as part of coping more than Caucasians. Tolan, Gorman-Smith, Henry, Chung, and Hunt (2002), in a longitudinal study of 372 15-16-year-old adolescents, predominately Hispanic and African Americans, from inner-city, low SES schools found that a higher proportion of African Americans used support and guidance from the community to cope. Similar findings were found for Hispanic youth but not for African-American youth in a study of 667 adolescents aged 11-14 (Rosario et al., 2003). The importance of community coping for adjustment in ethnic minority groups was illustrated by Phinney and Haas (2003) in a study of Hispanic first-year college students in which a narrative approach to coping was used. Seeking social support was described and perceived as the way of coping most

strongly associated with success in college. Self reports of lack of a need for social support were associated with less success and poorer adjustment.

Ethnicity, coping, and delinquency. Group-specific coping behaviors may be important buffers against delinquency. Among coping responses that have been identified as potential protective factors against delinquency in ethnic minority are a need to disavow group-based negative feedback (Crocker & Major, 1989), maintaining positive orientation towards one's own group (Harrison, Wilson, Pine, Chan, & Buriel., 1990), and spirituality (Barnes, Farrell, & Banerjee., 1994).

Views of what may be considered adaptive as opposed to maladaptive coping are not always supported by findings of research with ethnic minority. For example, Rosario et al. (2003) found that for African American and Hispanic boys, avoidance coping was associated with fewer self-reported delinquency behaviors when exposed to high levels of community violence. Similarly, Rasmussen et al. (2004) found that for African Americans resourceful coping was not associated with levels of exposure to violence or perception of risk.

Taken together, findings from studies that included careful consideration of ethnic variability suggest that overall, across all ethnic groups, a host of coping strategies and behaviors are prevalent. More between-group similarities than differences in coping lent support to the tentative conclusion that perhaps demographic characteristics have been overemphasized and play a lesser role in coping than has been previously suggested (Tolan et al., 2002).

#### The Current Study: Goals and Research Questions

The current study addressed the following research questions:



(1) What coping mechanisms do court-involved adolescents tend to utilize? The current study investigated the factorial structure of the Brief COPE with the added Aggressive Coping subscale adapted for court-involved adolescents.

(2) Are coping mechanisms associated with stressors? Based on the few previous investigations of coping in delinquent youth, it was expected that both subscales that describe avoidant-focused and approach-focused coping behaviors would be associated with specific stressors.

(3) Are there gender and ethnicity differences in the coping behaviors of court-involved adolescents? With respect to gender it was hypothesized that male participants would report more avoidant coping and less approach coping in comparison to female participants. With respect to ethnicity, it was hypothesized that Caucasians would report less support seeking and religious coping in comparison to Hispanics and African-Americans. In addition, it was expected that Caucasians would report more Coping Humor in comparison to Hispanics and African Americans.

(4) Is there a relationship between coping behaviors and the seriousness of delinquency and psychopathology? Based on past investigations it was hypothesized that emotional and avoidant coping behaviors will be associated with internalizing and externalizing psychopathology and seriousness of delinquency.

(5) Do models that view coping as a mediator and moderator of the relationship between stressors and internalizing and externalizing psychopathology and delinquency apply to court-involved adolescents? A mediation model suggested that a relationship between particular stressors and delinquency/psychopathology exists and can be partially accounted for by coping factors as mediators. A moderation model suggested that the

relationship between risk factors/stressors and psychopathology changes as a function of the different types of coping mechanisms utilized.

## CHAPTER II

### METHOD

#### Setting

The Springfield, Greenfield, Holyoke, and Northampton Juvenile Court Clinics perform all juvenile court-mandated psychological evaluations in Hampden, Hampshire, and Franklin Counties in Massachusetts and provide court mandated short-term group interventions. Hampden County has a population of approximately 450,000 people as of 2004. Twenty-six percent of the county's population is under 18 and about 20% are in the age range that qualifies for the juvenile delinquency category (under 17 in Massachusetts). Hampshire County has a population of approximately 154,000 and Franklin County has a population of about 76,000. The city Springfield, Massachusetts is a major urban industrial center for all three counties. Large parts of the city are plagued with high crime rates and few job opportunities. As of 2004 about 48.8% of the population is non-Hispanic, 21% is African American, and 27.2% is Hispanic, with about 2% categorized as having two or more ethnicities.

#### Participants and Characteristics of the Sample

A total of 97 participants completed measures for the current investigation between May 2006 and September 2007. Four participants were eliminated from the sample following preliminary reliability analyses described in the results section.

The final sample consisted of 69 male and 24 female adolescents. The ethnic and racial distribution was as follows: 50 (54%) Caucasians, 29 (31%) Hispanics, and 14 African-Americans (15%). The mean age at the time of participation was 14.3 years (SD= 1.4 years).

At the time of participation, 49 (53%) participants lived in a city, 44 (47%) lived in small town or a suburb. Sixty four (69%) participants lived with at least one of their biological or adoptive parents, 10 (11%) participants lived with grandparent/s, and 19 (20%) participants lived in foster care arrangements. Of the ninety-three, 15 (16 %) participants had a history of a stay in residential facilities for youth.

Thirty-five (38%) participants were attending middle school, 49 (53%) were attending high school and 6 (7%) were not in any educational setting. Forty-five participants (48%) were enrolled in special education programs and 23 (25%) have reported a history of staying back at least one grade in school.

Because of the large proportion of participants living in nontraditional family settings such as foster homes, experiencing multiple changes in caregivers, and because the majority of the family received fluctuating, non-salary, and unstable and variable income sources it was not feasible to assess socioeconomic status (SES) using typical self-report measures of income and parental education. Instead, financial hardship was assessed using the Massachusetts criterion for financial indigence used by the court system in Massachusetts. Participants were considered to be indigent or to be experiencing significant financial hardship if they met one of the following criteria at the time they became involved with the court: (1) They received public assistance under the Massachusetts Aid to Families with Dependent Children, or received assistance under Social Security or Medicaid program, (2) their tax income was 125% or less than the federal poverty threshold. Using this SES criterion, 61 (66%) of the sample was considered in serious financial need.

## Procedure

Participants were recruited from the cases that were referred for psychological evaluation or group treatment at the Juvenile Court Clinics in Springfield, Holyoke, Greenfield, and Northampton where they completed all research measures. Evaluations included joint and separate structured clinical interviews conducted with adolescents and their caregivers. The clinicians collecting the data from court records and administering the measures were licensed mental health professionals (clinical psychologists and social workers) and a supervised doctoral psychology intern.

It is important to note that despite the fact that the evaluation is considered court-mandated, participants are given the choice to refuse to take part in it. Furthermore, consenting to participate in the study was separate and independent from consenting to participate in the evaluation process.

## Measures

The Brief COPE (Carver, 1997) is an abbreviated inventory of the Coping Orientation to Problems Experienced Scale (COPE; Carver et al, 1989). This measure was chosen because it is one of only a few measures to combine theoretically broad, multidimensional views of coping with empirically developed scales. The Brief COPE includes 28 items and consists of only two items per scale. The 14 subscales reflect a broad range of coping behaviors (e.g., Active Coping, Planning, and Seeking Emotional Support). Participants reported the extent to which they utilized each coping strategy on a scale of 0 (I usually don't do this at all) to 3 (I usually do this a lot) as a response to a self-selected stressful or challenging event. Alpha Cronbach's reliability for the different scales exceeds 0.50 for all scales and is over 0.60 for all but three scales. The COPE but

not the Brief COPE has been validated for use in adolescent populations (Phelps & Jarvis, 1994). Because to date not a single coping measure has been developed to assess coping in court-involved adolescents, existing coping measures do not include items that were theoretically conceptualized to capture aggressive or delinquent behaviors as a form of coping. To investigate this dimension of coping, items that describe a range of aggressive responses (e.g., “I threaten to harm someone “I use force like kicking, pushing, or holding down, against someone”) were added to the Brief COPE for the purposes of the current study. The items for the new Aggressive Coping subscale were adapted from the Revised Conflict Tactics Scale (CTS2, Straus, Hamby, Boney-McCoy, & Sugarman, 1996)

The documented history of delinquencies for the participants was used as it appeared in their official court records in consultation with court- appointed probation officers. In addition, the Self Report Delinquency scale (SRD; Elliot, Huizinga, & Ageton, 1985) was completed by participants. The scale consists of items, which examine the frequency of minor and serious types of delinquent behavior. Delinquency is reported by listing the number of times he or she has engaged in an activity in the last year. The scale has been used extensively as part of the National Youth Survey (e.g., Huizinga, Loeber, & Thornberry, 1993) and has a Cronbach’s alpha of 0.93. Scores for seriousness of delinquency was assessed using categories from the National Survey of Crime Seriousness (see results section) (Wolfgang et al., 1985) and following Loeber, Farrington, Stouthmer-Loeber, and Van Kammen (1998).

The Behavior Assessment System for Children Parent Report, Second Edition (BASC-2, PRS) was used to assess emotional/ behavioral problems. The BASC-2

measures behavior and personality in adolescents aged 12-21. The parent-report scale comprises of 150 items and yields 4 composite scores. Two of these composite scores were used for the current investigation: (1) Externalizing Problems (Hyperactivity, Aggression and Conduct problems), and (2) Internalizing problems (Anxiety, Depression, and Somatization),

. Demographic data was collected via interviews with probation officers in the court from court records and from clinicians' interviews with participants. This included information on family background, ethnicity, occupation, marital status, and residence. Based on previous findings regarding the relationship between stressors and negative outcomes, information on the life time existence of the following stressors was collected: financial hardship, living in a single parent household, paternal and maternal substance abuse, physical abuse toward child, emotional abuse toward child, and emotional abuse between parents. Information regarding these stressors is routinely collected by probation officers and clinicians in the court and appears in official court records for each participant. All stressors were coded as either "evident" if recorded as such in court records or "non-evident" when the stressor in question was not reported in court records.

## CHAPTER III

### RESULTS

A series of preliminary age control analyses revealed that age was not associated with any the main variables of interest in the study therefore the results are reported for the entire sample as one age group.

Because the Brief COPE has been previously validated only for normative adolescent samples, Cronbach's alpha reliability was computed for the 14 original subscales and the new Aggressive Coping subscale to test whether the internal consistency of this measure held for the court-involved sample. The subscales and their reliability coefficients for the entire sample are presented in Table 2. Two subscales, Self-Distraction and Behavioral Disengagement failed to demonstrate acceptable reliability and were therefore dropped from subsequent analyses. The means and standard deviations for the remaining 13 subscales broken by gender and ethnicity are presented in Table 3. The Pearson product-moment correlations between the 13 scales are presented in Table 7.

To assess the construct validity of the Brief COPE for court-involved adolescents, an exploratory principal components analysis with Varimax rotation was conducted. Components with an eigenvalue equal to or greater than 1 were retained. Factor loadings for subscales of the COPE are presented in Table 4. The first factor was named approach coping and included Active Coping, Planning, and Reframing. The second factor was named avoidant coping and included Aggressive Coping, Denial, Self Blame, and Humor. The third factor consisted of seeking support and included Seeking Emotional Support and Seeking Instrumental Support. The fourth factor involved emotional coping



and consisted of Acceptance and Venting. Two subscales, Religion and Substance Abuse, failed to load on any of the factors.

A multivariate analysis of variance (MANOVA) for the effect of gender on the 13 coping subscales was conducted. Using Wilk's criterion, a significant effect was obtained for gender  $F(13, 72)=2.23, p<.05$ . Follow-up analyses of variance were conducted on each of the subscales of the Brief COPE. The analyses revealed the following significant gender effects: Male participants used Active Coping more than female participants  $F(1,84)=6.60, p<.05$ . Female participants used Self Blame more than did male participants,  $F(1,84)=4.21, p<.05$ .

A multivariate analysis of variance (MANOVA) for the effect of ethnicity on the 13 coping subscales was conducted. No overall significant main effect was obtained for ethnicity. Follow-up analyses revealed the following ethnicity effects: The extent to which Acceptance  $F(2,83)=3.10, p<.05$ , Seeking Emotional Support  $F(2,83)=3.38, p<.05$  and Venting  $F(2,83)=3.01, p<.05$  differed among the ethnic groups. Bonferroni post hoc analyses for multiple group comparisons revealed that Caucasian participants used more Acceptance, Venting, and Seeking Emotional Support than African Americans and Hispanics  $p<.05$  (See Table 3).

For the current investigation, data on life time history of eight major family and environmental stressors was collected. A conservative approach for coding the stressors was taken. Each stressor was coded either as present, if it was reported by court record, or non present, if no such report existed. As such, cases for which the information on a specific stressor was unknown or unreported were considered together in the analyses with cases in which no evidence for the history of the stressor. A summary of the

frequency with which each of these stressors was experienced by participants in the study is presented in Table 1. Chi-square analyses revealed no gender or ethnicity differences in the prevalence of stressors. To assess the cumulative stress, the stressors experienced by each participant were summed. The average number of stressors by ethnicity and gender is reported in Table 6. Only 14 (15%) participants have experienced no stressors, 23 (25%) have experienced one stressor, and 56 (60%) participants experienced multiple (2 or more stressors) stressors. A 2 (gender) x 3 (ethnicity) analysis of variance for the effects of gender and ethnicity on number of stressors revealed no significant findings. The number of stressors was invariant across gender and ethnic group.

To test the relationship between coping and cumulative stress, the correlation between the total number of stressors and the score on each coping subscale was calculated. The number of stressors was associated only with Denial Coping,  $r=.27$ ,  $p<0.05$ . A series of analyses of variance (ANOVA) for the effects of each stressor separately on coping revealed the following results: participants with substantial financial hardships tended to use more Denial Coping than participants without financial hardship,  $F(1,80)=4.12$ ,  $p<0.05$ . Participants who were raised in single-parent households used less Seeking Emotional Support coping ( $M=2.2$ ) than participants who were raised in two-parent households ( $M=3.0$ )  $F(1,80)=4.24$ ,  $p<.05$ . Participants who were subjected to parental physical abuse used less Seeking Instrumental Support coping ( $M=1.8$ ) than participants without a history of parental physical abuse ( $M=2.6$ ),  $F(1,80)=3.00$ ,  $p<.05$ . Participants with a history of physical abuse between the parents used more Denial Coping ( $M=2.4$ ) than participants without such a history ( $M=1.2$ ),  $F(1,80)=3.31$ ,  $p<.05$ .

Two measures were used to assess seriousness of delinquency for each participant: documented charges reported in court records (DD) and self-report delinquency using the Self Report Delinquency questionnaire (SRD). A seriousness score was assigned separately for SRD and DD's to provide 2 seriousness-of-delinquency scores for each participant.

In consultation with David Huizinga, Ph.D, and Rolph Loeber Ph.D., following their extensive psychometric work on levels of seriousness of adolescent delinquency using the SRD (see also Huizinga, Loeber, & Thornbery, 1993; Loeber, Farrington, Stouthmer-Loeber, and Van Kammen, 1998) ) the following criteria were used: (a) Level 0 (non-delinquent) included behaviors that are non-delinquent or are minimally illegal behaviors that may be excused as age appropriate and would typically not be pursued in the courts unless in conjunction with a more serious delinquency (b) Level 1 included minimally delinquent behaviors such as vandalism at home or theft at home of less than \$5 (c) Level 2 included more serious delinquencies such as vandalism outside the home in which the damage was greater than \$100, arson with minimal or no damage, minor theft and minor fraud outside the home (d) Level 3 delinquencies included vandalism in which the damage was greater than \$100, theft, arson with major damage, minor violent acts such as gang fights, and major fraud. (e) Level 4 delinquencies including all other serious delinquencies such forcible theft, breaking and entering, sex offenses and attacks (f) Level 5 delinquency was assigned to an individual with multiple level 4 delinquencies. With the exception of selling drugs, drug and alcohol related behaviors were not considered delinquent but are nonetheless reported. Information on the Frequency of each

SRD and its assigned level of seriousness is summarized in Table 5. Chi-square analyses revealed no significant associations between SRD and gender or ethnicity.

The means and standard deviations for the assigned levels of seriousness-of-delinquency for SRD and DD by gender and ethnicity is summarized in Table 6. To assess reliability of the measures and the relationship between the SRD and DD seriousness scores, a comparison was made between the level of seriousness and type of delinquencies for each participant in each of the measures. Eighty-one (87%) participants self-reported a delinquency equivalent in seriousness to their most serious documented delinquency. Sixteen participants failed to report the most serious documented charge in their self report. Of these, four endorsed a most serious delinquency that was at least two levels or more below their most serious documented delinquency. These participants were determined to be unreliable self-reporters and were omitted from all subsequent analyses. The other 12 participants reported a level of delinquency that was only one level less serious than the most serious documented charge and were retained in the analyses. The correlation between the assigned levels of seriousness based on SRD and DD was  $r=.34, p<.01$ .

Sixty-three participants were assigned a higher level of seriousness of delinquency based on their SRD questionnaire. These participants reported at least one delinquency that was more serious than their most serious DD. While it is possible that these also represent unreliable or exaggerated reports, it is more likely that they represent the fact that many more delinquencies occur than those which are documented by the police or the court. A within subject t-test revealed that self-report level of delinquency was higher than level of delinquency based on documented charges  $t=8.34, p<.001$  (see

Table 6) Because of the significant differences, both scores were used for subsequent delinquency analyses.

Internalizing and externalizing psychopathology BASC-2 composite scores by gender and ethnicity are reported in Table 6. T-scores based on comparison to normative scores are reported because they are often used as cutoff points for clinical significance. A series of 2 (gender) x 3 (ethnicity) analysis of variance was conducted and revealed no significant effects of gender or ethnicity on internalizing or externalizing symptoms.

. Using LISREL 8.8 (Jöreskog & Sorbom, 2005), Structural Equation modeling (SEM) was used to address the fourth research question regarding coping as a predictor of delinquency and psychopathology. An advantage of SEM is that it allows measuring multiple paths to several outcome variables simultaneously. In addition, SEM was chosen because it integrates path analysis with a confirmatory factor analysis (Smith & McMillan 2001). Maximum-likelihood estimation was used with the covariance matrix of the variables of interest as input.

In this approach, an a priori hypothesized model is being tested for its ability to explain the relationship between variables and is then trimmed. SEM models are evaluated for overall goodness of fit on how well they capture the data by testing the null hypothesis of no difference between the proposed model and the overall data structure. Confirmatory factor analysis based on the four coping factors was integrated in to the SEM model. In addition, SEM allows testing for local fit or significant paths within the model separately from the overall fit of the full model. Following suggestions by Kline (1998) the full theoretical model was tested first. The first model (see Figure 1) tested the ability of the exogenous latent variables (the four factors of coping that were guided by

the preliminary factor analysis), to predict the endogenous latent variables (delinquency and externalizing and internalizing psychopathology). The model variables were considered latent because they were not measured directly but were estimated from other measured variables. Delinquency in the model was estimated by the two observed variables of DD and SRD. Internalizing and externalizing psychopathology was measured by composite scores from the BASC II.

Model 1 showed relatively weak overall goodness of fit ( $\chi^2=119.6$ ,  $df=64$ ,  $p<.05$ ) RMSEA=0.093; NFI=0.847; CFI=0.920; SRMR=0.0933. No significant paths were found between the four coping factors and delinquency. However, 2 significant paths showed that Internalizing Psychopathology was negatively associated with the approach coping factor (standardized path coefficient= -.27) and positively associated with avoidant coping (standardized path coefficient =.64). Gender was not associated with the endogenous variables and was therefore dropped from subsequent models.

Because no coping factor predicted delinquency, the insignificant paths as well as the endogenous variables that were not predicted by any of the coping factors, were trimmed from the model. Model 2 represents the association between approach coping (standardized path coefficient= -.28) and avoidant coping (standardized path coefficient= .83) and internalizing psychopathology and represent a relatively better overall fit  $\chi^2 = 124.4$ ;  $df=70$ ;  $p<0.05$ ; RMSEA=0.07; NFI=0.897; CFI=0.921; SRMR= .008. (see Figure 2).

To address the fifth research question regarding coping as a mediator of the relationship between stressors, delinquency, and psychopathology preliminary analyses of the data were conducted to address suitability for mediation and moderation SEM models. A

MANOVA for the examining the effects of the 8 stressors separately on means of the SRD, DD and internalizing and externalizing psychopathology revealed no significant findings. Similarly, no association was found between cumulative stress, which was measured as the number of stressors with delinquency and psychopathology. Because preliminary conditions for testing the mediation and moderation models were not met, this hypothesis was not tested.

## CHAPTER IV

### DISCUSSION

Few studies to date have explored the construct of coping in a sample of court-involved adolescents. Court-involved adolescents are likely to demonstrate a more pervasive and serious pattern of offending, to experience a greater number of stressors, and are considered at high risk for negative psychological outcomes compared to the general adolescent population. Therefore, they were considered a distinct population in the current investigation. The present study validated the Brief COPE for use with this population and explored whether and how coping relates to delinquency, internalizing and externalizing psychopathology, and stressors in an ethnically-diverse court-involved adolescent sample.

#### Reliability and Validity of the Brief COPE

The Brief COPE has not previously been used with a court-involved sample; it was therefore necessary to assess the reliability of its subscales. The measure demonstrated sufficient reliability for most subscales. Although this abbreviated version uses two items per scale, reliability coefficients exceeded .50 for all but 2 subscales, thus supporting the use of the Brief COPE for the study's population.

Two subscales, Behavioral Disengagement and Self Distraction, failed to demonstrate acceptable levels of reliability and were subsequently dropped from all analyses. Considering the theoretical reason for scales' unreliability is central to the development of effective measures that capture coping in court-involved youth. The two items comprising the Behavioral Disengagement scale are almost identical, with the exception of one word ("I give up the attempt to *cope/deal* with the problem"). The lack



of association between these two items, both with presumably equivalent textual meaning, suggests that the terms "cope" and "deal" were not interpreted in a similar fashion. Perhaps the concept of "coping" and the concept of "dealing" hold different connotations based on language use and experience. For example, "coping" may reflect a more emotional approach, whereas "dealing" may represent a more behavioral approach. Interestingly, a review of the literature reveals that researchers use the terms interchangeably without considering the potential semantic and theoretical differences (e.g. Austenfeld & Stanton, 2004; Folkman & Moskowitz, 2004; Skinner et al., 2003). In the case of the present sample these nuanced differences may have been critical.

The lack of reliability of the Self-Distraction scale is also important. As its name implies, this scale is comprised of items with a list of activities that provide distractions from a stressor. The activities included in these items reflect common pursuits for normative adults and adolescents such as working, going to the movies, or watching television. It is possible that these activities do not capture the range of self-distracting behaviors unique to court-involved adolescents.

The lack of reliability for both subscales illustrates the deficiency in using non-tailored and non-specific coping measures for adolescents. As noted above, using scales that were originally developed for adults or for the general population of adolescents has shortcomings. Typically a measure, previously validated for one or more populations with acceptable psychometric properties, is used in an ad hoc fashion and applied to different populations (Tolan et al., 2002). Future efforts should focus on developing coping inventories that are sensitive to the language, culture, and experiences of the adolescent population in question. As suggested by Ayers et al. (1996), items for coping

inventories should be extracted from semi-structured questionnaires that require participants to report which activities they engage in to manage stress. An alternative approach for use in specific sub-groups is the narrative approach, in which people are asked to elaborate on how they coped with stressful events. Folkman and Moskowitz (2004) noted that narratives may be more meaningful for capturing individual coping strategies. To date, the narrative approach has not been used for well-defined sub-groups of children and adolescents.

The current study addressed the need for normative data on coping strategies in court-involved adolescents. A theoretically warranted Aggressive Coping scale was added to the COPE to reflect aggressive behaviors commonly exhibited by court-involved adolescents. The results indicated a mixed pattern of similarities and differences when compared to previously identified coping factors in the general adolescent population. Overall, the factorial structure of the Brief COPE for this population is another demonstration that coping cannot be neatly divided into behavior-focused and emotion-focused mechanisms, and provides further support to the claim that emotional and behavioral components are neither mutually exclusive nor exhaustive of all coping behaviors (Lazarus, 1996; Skinner et al., 2003).

The emergence of Positive Reframing, Active Coping, and Planning in a single approach-coping factor replicates similar findings in samples of adolescents (e.g. Ayers et al., 1996; Jarvis & Phelps, 1994). The approach-coping factor includes a group of engaged and effortful behaviors that require seeking out information, making plans and acting. As such, these coping behaviors have also been characterized as being oriented towards the stressor (Roth & Cohen, 1986). This coping dimension should not be

confused with adaptive coping. The term adaptive, when attached to the outcome of the coping, implies a higher level of adjustment and a set of more favorable outcomes. However, an individual may reframe, act, or plan in maladaptive ways, which would lead to unfavorable outcomes (e.g. “It is actually good that I was kicked out of school, I have more time to do what I want. I will join my cousin in selling drugs and make better use of my time”).

The second factor, avoidant coping, included Aggressive Coping, Denial, Self-Blame, and Humor. Denial and Self Blame reflect coping behaviors that are neither solution-oriented nor change-focused. The crux of the difference between these behaviors and the behaviors in the approach coping factor is that the avoidant behaviors are never aimed at dealing directly with the stressor (Fields & Prinz, 1997). Similarly, Aggressive Coping, when not directed exclusively at the source of stress (e.g. “I slam doors”, “I threaten to hurt someone”) is also not solution-oriented. In fact, aggression when it is focused on dealing with the negative feelings associated with the stressor represents avoidance from dealing with the stressor itself.

The coping strategies in the avoidant factor have been generally, but not exclusively, viewed as maladaptive and associated with poor outcomes. As in the case of approach coping, whether or not avoidance is adaptive is highly dependent on context. No coping mechanism is inherently good or bad. It is important to evaluate coping in the context of the specific stressors in which it occurs.

The loading of Coping Humor on the avoidant coping factor deserves attention. In previous factor analyses of the COPE, Coping Humor either failed to load as a factor or was identified as its own factor (Carver, 1997; Jarvis & Phelps 1994). Humor has often

been seen as a mature coping strategy (Vaillant, 1993; 2000) and can be conceptualized as an attempt to reinterpret stressors or regain a sense of psychological control in the face of a reality that cannot be altered. It is possible that the strong association with the avoidant scales for the current study's population reveals that humor (e.g. "I made fun of the situation") may be an attempt to avoid facing the stressor or an inability to face reality. Anecdotal evidence from group work with the study's population suggests that humor is used as part of an "everything is a joke" approach to serious and difficult life events or delinquent behaviors. Vaillant (1993) provides an important distinction, noting that mature humor is a mechanism that allows individuals to look directly at what is painful while not ignoring or distorting stressful aspects of reality. As such, Coping Humor should be a prime example of approach coping. In contrast, describing an attempt to rob someone or to sell drugs as "funny" represents a highly avoidant strategy.

Seeking Emotional Support and Seeking Instrumental Support were strongly associated, emerging as a single seeking support factor. The two types of support-seeking represent closely-related and supplementary coping strategies. In both, the individual seeks help from caregivers and peers to cope with either emotional or practical aspects of a problem. Consistent with the current factor analysis, a large scale survey (Ayers et al., 1996) demonstrated that although the distinction between emotional and instrumental support-seeking is important in order to differentiate the emotional and behavioral dimensions, the two subscales formed a single factor.

The final factor consisted of two predominantly emotional strategies, Venting and Acceptance, both presumably aimed at reducing the emotional distress caused by a problem situation. In contrast to Reframing, described earlier, Acceptance is considered

emotional because it is an effort to feel better about a situation as it is, without adjusting the interpretation of the situation. As such, Acceptance is a less active coping skill. Similarly, Venting (e.g. “I get upset and let my emotions out”) is another emotional-regulatory strategy.

Two subscales, Substance Abuse and Religious Coping, failed to load on any of the factors. Substance abuse is typically considered a highly avoidant coping mechanism and has emerged as part of an avoidant factor in one previous validation of the COPE (Jarvis & Phelps, 1994). In this investigation, Substance Abuse was positively associated with Denial. Note that despite the fact that substance abuse was not considered a delinquent behavior in the current investigation, alcohol and drug use was reported with high frequency within the sample in both SRD and DD. The extent to which substance abuse in court-involved adolescents is a means for coping with stress should be explored in future investigations. Interestingly, within Family System Theory both delinquency and substance abuse are considered similar, in that both are responses to stressors in the family as well as manifestations of a limited ability in youth to cope (Cook, 2001).

The Religious Coping subscale was theoretically developed as an active coping strategy important for people in times of distress as a source of support and growth (Carver, Scheier, & Weintraub, 1989). Similar to the current study, in a past validation of the COPE for adolescents this subscale failed to load on any of the factors (Jarvis & Phelps, 1994). In this study, Religious Coping was most strongly associated with Denial, the quintessential avoidant coping mechanism. The association between Denial and Religious Coping raises the question of the extent to which Religious Coping should be considered within the avoidant dimension. In as much as no investigations have explored

this issue in adolescents, clearly more research is needed to clarify how faith and religion fall within coping dimensions.

Because of sample size limitations, a separate factor analysis testing invariance across age, gender and ethnicity groups was not conducted. However, past investigations (e.g. Ayers et al, 1996; Jarvis & Phelps, 1994) have concluded that the basic factors of coping in adolescents tend to be similar across age groups, gender and ethnicity.

#### Gender Differences in Coping

The current study explored gender differences in coping. Such differences were found in only two of the 13 subscales of the COPE. Overall, female and male participants reported similar levels of coping strategies on both the original subscales of the Brief COPE as well as the Aggressive Coping subscale.

When faced with an unidentified stressful event, male participants in the study used more Active Coping (an approach subscale) whereas female participants used more Self Blame (an avoidance subscale). In comparison, past investigations with non-delinquent youth found that male adolescents use more avoidant coping and female adolescents more approach coping (Jarvis & Phelps, 1994; Endler & Parker, 1990). Because the null hypothesis cannot be proved, it is impossible to conclude that such differences do not exist. However, at face value, in the present sample male and female court-involved adolescents used overall similar levels of coping mechanisms. In the absence of additional research on gender differences in coping amongst court-involved adolescents, we are still far from establishing a conclusive gender difference

## Ethnicity Differences in Coping

This study also explored ethnicity differences in coping mechanisms. Consistent with previous investigations the results show few differences in coping among the three ethnic groups. Because of sample size and the ethnicity distribution, the statistical power to detect ethnicity differences was limited. The results showed ethnicity differences in scores for three coping subscales. In contrast to past investigations, Caucasians in this study used more emotional strategies in comparison to both Hispanics and African Americans. Caucasian participants reported the highest levels of Acceptance, Venting, and Seeking Emotional Support.

The results of the current study did not replicate previous findings indicating that African Americans tend to rely more on religion and spirituality compared to both Hispanics and Caucasians and that Caucasians tend to use more coping humor (Halstead, Johnson, & Cunningham, 1993; Gonzles & Kim, 1997; Njoku, Jason & Torres-Harding, 2005).

With respect to the Seeking Emotional Support subscale, ethnic differences in the current study stand in contrast to previous investigations which suggested that ethnic minorities tend to seek and utilize more support resources, possibly because of stronger reliance on community and family (Tolan et al., 2002). With respect to religious coping, Njoku et al., (2004), note that increased levels of religious and spiritual coping may be associated with the need to deal with prejudice and discrimination, neither of which measured as stressors in the current investigation.

It is important to note that coping differences that are related to socio-economic status and levels of stress are typically confounded with true ethnic differences in coping.

In comparison to other investigations of ethnic differences in coping, the current study has a relatively well defined sample, with a majority of participants, regardless of ethnicity, belonging to urban and inner-city population, a status which influences both stressors and coping (Tolan et al, 2002).

### Coping and Stressors

The current investigation evaluated the relationship between stressors and coping to determine whether exposure to stressors is associated with an increased use of certain coping strategies. Eighty-five percent of all participants in the sample reported at least one stressor, with 68% of the participants reporting two or more.

Participants who experienced financial hardship reported higher levels of Denial. Financial hardship is considered to be a particularly fundamental and deleterious stressor because of its pervasive association with other stressors, such as poor education and punitive parenting (Wadsworth et al, 2005). In past investigations it was also associated with a host of negative outcomes such as poor adjustment, medical illness, and emotional and behavioral problems (Felner et al., 1995). It is possible that adolescents, who are largely financially dependent on caregivers, have limited ability to use approach coping mechanisms to change or influence stressors at the family level. Similarly, participants with a history of domestic and physical abuse between their parents reported higher levels of Denial. However, no such differences were found between participants who experienced physical abuse themselves. Conceivably, these participants possess few resources to engage in approach or support-oriented strategies and therefore resort to Denial. Denial may also represent a last-resort coping mechanism in participants who are powerless to alter devastating situations. A potentially illuminating approach is



investigating not which coping mechanisms were utilized, but rather which ones the participants conceive would be helpful in changing the situation.

Participants from single-parent households reported lower levels of Seeking Emotional Support. Because support as a coping mechanism is dependent on interacting with an emotionally available individual, this finding may indicate that a single-parent household provides fewer support resources than a two-parent household. Alternatively, this finding may represent participants' wish not to burden a single parent. Note that this coping mechanism does not distinguish between parental and peer support sources.

#### Coping as a Predictor of Delinquency and Psychopathology

The current investigation explored the relationships among coping, delinquency, and internalizing and externalizing psychopathology. The goal was to investigate whether coping is a mediator and moderator in the relationship between stressors and outcomes. The hypothesis that coping factors would predict severity of internalizing and externalizing symptoms and delinquency was partially supported by the data.

. To explore the relationship between coping and delinquency, information on delinquent behaviors was collected using documented and self-report measures of delinquency. The results revealed that participants were reliable self-reporters in the sense that only a small minority failed to report their most serious documented offense. As expected, the level of seriousness of delinquency was higher for Self-Report Delinquency (SRD) than for Documented Delinquency (DD), suggesting that some delinquent behaviors remain unknown to the authorities and are therefore undocumented (Thornberry & Krohn, 2000). This finding may also reflect a tendency for offenders to exaggerate delinquencies. In the broader sense it may be indicative of a recall bias,

common to research utilizing self-reported life events. For example, research that involves recall of coping with life events shows that self report tends to be influenced by factors that are present at the time of recall, particularly when coping checklists are used (Blaney, 1986; Coyne & Gotlieb, 1996; Folkman & Moskowitz, 2004). This problem also exists in the large-scale delinquency studies literature, which tends to rely almost exclusively on self-report of offenses (e.g. (Huizinga, Loeber, & Thornberry, 1993)

Contrary to results of national surveys (e.g. Redding & Arrigo, 2005; U.S. Census Bureau, 2005), in the current study, ethnic minority groups did not differ from the Caucasian majority group in the number or seriousness of delinquencies on either the SRD or DD measure. The lack of difference may stem from the fact that the study's population is a self-selected group that is not representative of the general population. Similarly, female and male participants did not differ in the seriousness of delinquencies. The lack of gender difference is consistent with a growing body of evidence for increasing prevalence of female offenses (Chesney-Lind & Sheldon, 2004), which indicates that the gap in delinquency between male and female adolescents is narrowing.

Contrary to the research hypothesis, none of the coping factors predicted self-report or documented seriousness of delinquency. Taken at face value, this finding suggests that coping strategies may not be associated with delinquent behavior. As stated above, because the null hypothesis cannot be statistically supported, this lack of association in the results may not suggest a lack of such a relationship. Alternatively, it is possible that seriousness of delinquency was not predicted by traditionally conceptualized coping mechanisms because the delinquent behavior is itself a way to cope.

The possibility that delinquency, similar to aggression, is itself coping mechanisms should be explored in future investigations. Brezina (2000) suggested that delinquent behavior is an effective way to regain control and improve self-esteem when facing a stressor. Delinquency may possess other important characteristics of coping such as reducing stress, increasing sense of self efficacy in changing one's situations when dealing with problems such as financial hardship, bullying, or physical abuse.

Evaluating whether behaviors such as theft, vandalism, and gang involvement, are coping mechanisms is an example of the broader theoretical controversy regarding the definition of coping (Skinner et al, 2003). A potentially important line of investigation to determine whether delinquency is a form of coping is its relationship with other coping mechanisms. Since we know that coping is multidimensional and that coping mechanisms are not mutually exclusive, studies should focus on the extent to which delinquency suppresses or competes with other coping behaviors in adolescence.

Because no significant associations between delinquency and other variables were obtained, it is difficult to decide whether SRD or DD is a more valid measure in the research on the psychological correlates of delinquency. To compare the two, future investigations should explore which better predicts psychological outcomes. Longitudinal investigations may also serve to tease out a potential confound in measuring DD, which stems from the fact that fewer documented offenses may represent an ability to avoid arrest, rather than committing fewer delinquencies. It is possible that, similar to research in other areas of child psychology, multimodal and multi-informant measures would provide a more complete picture.

SEM revealed a relationship between two coping factors and parent-reported internalizing psychopathology. Avoidant coping mechanisms were found to be associated with more internalizing symptoms, and approach coping mechanisms were associated with fewer internalizing symptoms. The relationship between internalizing symptoms and avoidant coping replicates a fairly robust finding in the literature. Depressed and anxious adolescents report more avoidant coping strategies and fewer approach coping strategies than non-depressed adolescents (Connor-Smith & Comaps, 2002; Compas et al, 2001; Dumont & Provost, 1999; Ebata & Moos, 1994; Gomez, 1998). By virtue of the cross-sectional nature of the current study, the developmental course for this relationship was not investigated. However, longitudinal studies with non-delinquent populations suggest that this relationship is stable over time and may be independent of gender (Seiffge-Krenke & Klessinger, 2000). In delinquent populations, a mixed pattern of findings regarding the relationship between coping and internalizing and externalizing symptoms has been reported. For example, avoidant coping was associated with negative psychological outcomes, but also was adaptive to the circumstance of adjusting to incarceration (Ireland, 2005; Eftekhari, Turner, & Larimer, 2004).

Several authors have suggested a coping deficit model (e.g. Arsenew et al, 1987) in which certain coping mechanisms lead to symptom development. One explanation for the relationship between avoidant coping and internalizing symptoms is that individuals who are unable to alleviate negative affect tend to use avoidant coping, which increases internalizing symptomology which in turn leads to more avoidant coping (Herman-Stahl & Paterson, 1999). In contrast, the use of approach coping is associated with fewer

internalizing symptoms because it increases self-efficacy and control over the stressor, which helps to alleviate negative affect, anxiety, and somatic symptoms.

The results of the present study indicate that support seeking was not associated with internalizing symptoms. Similar findings were obtained in other studies of internalizing symptoms in a high risk group of adolescents (e.g. Dumont & Provost, 1999). This lack of association could be explained by an important differentiation; Sandler et al. (1994) noted that the degree to which an individual seeks support is not what predicts less internalizing problems but rather whether support is sought from individuals who are capable and willing to provide support. The claim that support availability and not support seeking predicts fewer symptoms was further elaborated by Grant et al. (2000), who investigated support coping in a sample of urban high-stress adolescents. Grant et al. suggested that highly stressed populations may have depleted, overwhelmed, and ineffective sources of support. Moreover, because parents model and teach coping mechanisms to their children (Power, 2004), it is possible that while actively seeking support was not associated with outcomes in the current study, the parents' role is implicated in the type of mechanism that the participants use. Future studies with court-involved adolescents should therefore also focus on soliciting dyadic information that explores how parent coping mechanisms are associated with those of their children.

Coping factors were not associated with externalizing psychopathology in the current investigation. Compas et al., (2001) noted that fewer investigations have explored the relationship between coping and externalizing behaviors than between coping and internalizing behaviors. The failure of the current study to find such an association is

inconsistent with literature reporting that more approach coping is associated with fewer externalizing symptoms (e.g. Wadsworth & Compas, 2000, Lengua, Sandler, & West, 1999). With respect to avoidant coping, the literature is less conclusive, with a mixed pattern of positive and negative associations between avoidant coping mechanisms and externalizing symptoms (Compas et al., 2001).

. Surprisingly, the subscales comprising the emotional coping factor were not associated with either internalizing or externalizing symptoms. Unlike many previous investigations (Coyne & Racioppo, 2000; Kohn, 1996), the current study did not replicate findings associating emotional coping with negative outcomes such as externalizing or internalizing problems (e.g. Compas, 1987). It is possible that the relationship between emotional coping and negative outcomes is complex. For example, Austenfeld and Stanton (2004) suggested that emotional coping in studies of psychopathology is often confounded with acute stress and self-deprecation. Furthermore, they suggested that items in coping inventories fail to distinguish adaptive emotional coping from maladaptive emotional coping. Therefore, the “bad reputation” of emotional coping may have been overstressed. For example, in their review, Austenfeld and Stanton present evidence from studies of coping with medical stressors in which emotional processing was associated with adjustment and well-being.

Contrary to the prediction, neither specific stressors nor the number of stressors were associated with levels of delinquency. This lack of association is inconsistent with other investigations regarding stressors as predictors of delinquency in adolescents (DeMatteo & Marczyk, 2005; Kumpfer & Alvarado, 2003; Loeber & Farrington, 1998; 2000). The failure to replicate past findings warrants attention. It is possible, as suggested

by several authors, that the relationship between environmental stressors and delinquent behavior has been overemphasized (Dempsey, 2002; Richters & Martinez, 2003). However, it is also plausible that the relationship depends on other psychological moderators and mediators not measured in the current study. Because a significant relationship between predictor and outcome is a preliminary condition for mediation and moderation models, the role of coping as a moderator and a mediator of the relationship between stressors and outcomes, an important goal of the current study, could not be investigated.

#### Strengths, Limitations, and Future Directions

There are several strengths in the current study. This investigation focused on a relatively well-defined and under-researched population. Focusing on narrowly defined populations is important in understanding whether findings of the relationship between stressors and behavioral and emotional outcomes apply to very specific groups. It should be noted that this investigation and similar ones do not intend to be generalized to broader populations. To date, the present study is the only one to validate a coping inventory for use with court-involved adolescents and to include a subscale that captures aggression. Moreover, unlike in the majority of coping studies, this study's sample was not predominately Caucasian and middle class. In contrast to most delinquency investigations, the study used both objective and self-report measures to report delinquent behavior. An additional strength is the use of a sophisticated statistical method allowing the simultaneous measurement of multiple predictors and outcome variables. This method allowed the replication of the relationship between internalizing symptoms and two coping factors.

There are several limitations in the present study. The size of the sample was relatively small. Administering the measures to a larger sample would allow for the exploration of gender and ethnic variation in the coping measures. Additionally, the correlational, non-longitudinal nature of this study precluded a causal understanding of the findings. Because coping, psychopathology and delinquency all follow developmental pathways (Moffitt, 1993; 2000; Seifge-Krenke, 1993, Vermerien, 2003), future longitudinal research should address how the early manifestations of coping mechanisms in childhood predict negative outcomes in high risk adolescents.

None of the results in the current study were moderated by the age of the participants. However, caution should be applied in interpreting the lack of age differences. The sample included individuals from early and late adolescence. As such, different participants were at varying stages of the developmental continuum. For example, the seriousness of delinquency classification utilized in the study, although extensively used (Huizinga, Loeber, & Thornberry, 1993; Loeber, Farrington, Stouthmer-Loeber, & Van Kammen, 1998), does not take into consideration age as a determinant of seriousness of actions. Assigning the same seriousness score to a 12-year old and a 17-year old may not accurately reflect the true level of the seriousness of the offense. The same behavior at an earlier age may be predictive of a much more serious latent delinquency than at the age of 17. Therefore it is possible that seriousness and age were at least partly confounded.

Other measurement issues related to delinquency include a focus on seriousness rather than persistence. Seriousness as measured in the study does not account for repeated delinquencies. As a result, the seriousness of delinquency scores (with the



exception of repeated level-4 delinquencies) may underestimate delinquency for individuals who demonstrate a repetitive pattern of the same offenses. However, with each type of delinquency affecting the seriousness score only once, variance associated with bias in recalling the reported number of occurrences for each delinquency was eliminated. In addition, as noted above, longitudinal studies in community samples of adolescents suggest that persistence and seriousness may be positively associated. Typically, when an individual progresses along the seriousness scale he or she tends to continue to commit less serious offenses.

Methodological limitations may also have prevented replication of a relationship between stressors and seriousness of delinquency. A restricted range in the seriousness of delinquency measure could have prevented it from correlating with other measures.

A second problem can be noted in the measurement of coping, which was general rather than focused on specific stressors. By asking participants to report how they cope with undefined self-selected stressors, the goal was to use a conservative approach to detecting the relationship between stressors and coping. However, this approach may have limited the ability to detect such a relationship. Future investigations should utilize both general and stressor-specific questions in which participants are asked to report how they cope with predefined and subjectively defined stressors.

#### Implications for Interventions with Court-Involved Adolescents

Understanding coping and its correlates in a sample of court-involved adolescents may carry important implications for interventions with court-involved adolescents. Despite its theoretical appeal, researchers and theorists have struggled to bridge the gap between empirical investigations of coping mechanisms and how individuals use specific

coping skills to achieve adaptive outcomes (Coyne & Racioppo, 2000). The current investigation is yet another example of the omnipresent difficulty of drawing clear guidelines for development of coping-informed interventions based on checklists and coping inventories.

Traditionally, prevention deals with identifying risk factors and changing or replacing them to reduce the probability of delinquent behaviors (Quinsey et al., 2004). Once the delinquent acts have occurred, possible treatments may focus on deterrence, divergence, or punishment in an effort to prevent reoccurrence. Coping-informed prevention takes the approach that specific forms of coping are implicated in the developmental pathway to negative psychological outcomes.

Despite the obvious appeal of the expectation that teaching effective coping mechanisms will promote positive outcomes and reduce negative psychological outcomes, very little is known regarding whether such an approach is effective in court-involved adolescents. As noted by Folkman and Moskowitz (2004), the fact that coping is so highly contextual makes it difficult to determine which of the numerous coping skills will be effective in a particular situation and for a particular individual.

Because the results of the current study do not support coping to be associated with delinquency, more research is needed to determine whether coping skills and mechanisms should be the focus of delinquency prevention. The finding that coping behaviors are associated with internalizing psychopathology carries implications for intervention. Programs should teach and reinforce coping behaviors that are associated with less internalizing psychopathology should change, eliminate, or prevent coping behaviors that are associated with more internalizing psychopathology. For example,

such programs may focus on teaching how to use fewer avoidant and more approach coping skills when dealing with stressful events.

Because coping strategies are cognitive, emotional, and behavioral responses to stress, cognitive-behavioral therapy techniques can provide a useful framework for understanding coping-based interventions (Matthews & Wells, 1996). Coping behaviors stem from appraisals of stress (Lazarus & Folkman, 1984; Zeidner & Sakalofske, 1996). Therefore, modifying stress-related cognitions through strategies such as cognitive restructuring, planning, and reframing, all hallmarks of cognitive-behavioral therapy, are important. Interventions that aim to improve and develop coping skills have been shown to be effective in several domains such as general problem solving (Kant, D’Zurilla, & Mayedu-Olivares, 1997) and coping with chronic pain and medical procedures (Hanson & Gerber, 1990; Lioffi & Hatira, 2003). Similarly, psychotherapies that include emotional coping skills have been found to reduce marital distress (Johnson, Hunsley, Greenberg & Schindler, 1999) and distress associated with cancer (Giese-Davis et al., 2000).

Several coping-informed interventions for children and adolescents have also been developed. For example, the Coping Cat (Kendall, 1990), a coping informed intervention for anxiety and the Adolescent Coping with Depression Course (CWD-A), a cognitive-behavioral group intervention for depressed youth, which attempts to enhance approach coping behaviors such as social skills, cognitive reframing, communication, and problem solving, (Clarke et al., 1999) have been shown to be effective.

Coping skills have been emphasized in several well-established treatments for delinquency. For example, Multi-systemic Therapy and Functional Family Therapy target chronic violent juvenile offenders aged 12-17 and their families, and emphasize

behavioral change by means of empowering youth to cope with family, peers, school, and neighborhood stressors (Flannery et al., 2005). Similarly, much of the curriculum of anger control training programs such as Anger Replacement Therapy (ART; Glick & Goldstein, 1994) a group treatment for juvenile offenders, deals with bona fide coping behaviors such as identifying problems, stating complaints, resisting group pressure, reframing the problem and the solutions, recognizing triggers, practicing self control, and relaxation techniques. Similarly, several investigations have supported the notion that teaching youth social skills, problem solving, and anger management are effective ways of reducing conduct disorder symptoms (Flannery et al., 2005).

With respect to psychopathology, the current study suggests that interventions for court-involved adolescents should strive to enhance approach coping and reduce avoidant coping strategies. To date, there is only one identified coping-based intervention that has been developed to reduce internalizing psychopathology in delinquent youth. The Coping Course is a modified version of the CWD-A described above. Findings from a study of 138 incarcerated male adolescents, including treatment groups and controls, showed a reduction in internalizing and externalizing and suicidality, and an increase in self esteem and the sharing of feelings with staff (Rohde, Jorgensen, & Seeley, 2004).

Future studies ought to implement methods in which specific coping strategies are taught as part of an early-life prevention program for high-risk populations, or as part of intervention programs for individuals who have already exhibited delinquent behavior, in order to assess whether a reduction in such behavior occurs.

## Conclusion

Given the magnitude of the problem of adolescent delinquency, it is vital to find ways to understand how to prevent youth from embarking on the delinquent path, and how to help those already court-involved to veer away from it. Adolescence is a crossroads in life which is evidently the case for the youth in the study. As someone who has worked with many individuals similar to those who participated in the study, in an attempt to help them find ways to end their involvement with the court and make better coping choices, I believe that there is a need to understand why certain adolescents continue to exhibit delinquent behavior. The current investigation sought answers in the role that coping plays in the lives of those who become court-involved. Given the circumstances faced by the participants in the current study and many others like them, they are in need of coping. However, we have yet to find the most effective ways to investigate how these adolescents cope, and to intervene accordingly.

Table 1. Frequency of Reporting of Stressors in the Sample

| <b>Stressor</b>                        | <b>Frequency</b> |
|--|------------------|
| 1. Financial hardship                  | 62 (67%)         |
| 2. Living in a single parent household | 49 (53%)         |
| 3. Paternal substance abuse*           | 38 (41%)         |
| 4. Maternal Substance abuse*           | 32 (34%)         |
| 5. Physical abuse between parents      | 26 (28%)         |
| 6. Physical abuse toward participant   | 18 (20%)         |
| 7. Emotional abuse between parents     | 24 (26%)         |
| 8. Emotional abuse toward child        | 24 (27%)         |

Table 2. Reliability Coefficients for the Subscales of the Brief COPE

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| <b>Subscales</b>              | <b>Reliability</b> |
|-------------------------------|--------------------|
| 1. Active Coping              | .66                |
| 2. Planning                   | .50                |
| 3. Positive Reframing         | .59                |
| 4. Acceptance                 | .41                |
| 5. Humor                      | .73                |
| 6. Religion                   | .76                |
| 7. Using Emotional Support    | .57                |
| 8. Using Instrumental Support | .66                |
| 9. Self-Distraction           | -.45               |
| 10. Denial                    | .72                |
| 11. Venting                   | .74                |
| 12. Substance Abuse           | .80                |
| 13. Behavioral Disengagement  | .20                |
| 14. Self-Blame                | .68                |
| 15. Aggressive Coping         | .87                |

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Table 3. Means and Standard Deviations for the Subscales of the Brief COPE

| Subscales                              | Total       | Sample      | Males       |             | Females     |             |
|--|-------------|-------------|-------------|-------------|-------------|-------------|
|  | M           | SD          | M           | SD          | M           | SD          |
| <b>1. Active Coping</b>                | <b>3.30</b> | <b>1.65</b> | <b>3.51</b> | <b>1.57</b> | <b>2.69</b> | <b>1.74</b> |
| Caucasians                             | 3.27        | 1.52        | 3.60        | 1.43        | 2.50        | 1.50        |
| Hispanics                              | 3.42        | 1.87        | 3.42        | 1.80        | 3.40        | 2.20        |
| African Americans                      | 3.15        | 1.67        | 3.45        | 1.63        | 1.50        | 0.70        |
| <b>2. Planning</b>                     | <b>2.92</b> | <b>1.67</b> | <b>3.04</b> | <b>1.74</b> | <b>2.54</b> | <b>1.43</b> |
| Caucasians                             | 3.00        | 1.76        | 3.24        | 1.83        | 2.38        | 1.44        |
| Hispanics                              | 2.82        | 1.63        | 3.09        | 1.70        | 2.42        | 1.39        |
| African Americans                      | 2.61        | 1.55        | 2.36        | 1.50        | 4.00        | 1.41        |
| <b>3. Positive Reframing</b>           | <b>2.59</b> | <b>1.62</b> | <b>2.77</b> | <b>1.66</b> | <b>2.10</b> | <b>1.41</b> |
| Caucasians                             | 2.76        | 1.59        | 2.97        | 1.68        | 2.23        | 1.23        |
| Hispanics                              | 2.39        | 1.81        | 2.52        | 1.80        | 2.00        | 1.91        |
| African Americans                      | 2.46        | 1.33        | 2.63        | 1.36        | 1.50        | 0.70        |
| <b>4. Acceptance</b>                   | <b>3.47</b> | <b>1.70</b> | <b>3.61</b> | <b>1.65</b> | <b>3.04</b> | <b>1.81</b> |
| Caucasians                             | 3.78        | 1.54        | 3.93        | 1.49        | 3.38        | 1.66        |
| Hispanics                              | 3.39        | 1.83        | 3.47        | 1.86        | 3.14        | 1.86        |
| African Americans                      | 2.53        | 1.71        | 2.91        | 1.57        | 0.50        | 0.70        |
| <b>5. Humor</b>                        | <b>2.85</b> | <b>1.97</b> | <b>2.73</b> | <b>1.91</b> | <b>3.18</b> | <b>2.12</b> |
| Caucasians                             | 3.00        | 1.87        | 2.84        | 1.83        | 3.38        | 1.98        |
| Hispanics                              | 2.75        | 2.08        | 2.47        | 1.99        | 3.57        | 2.29        |
| African Americans                      | 2.53        | 2.14        | 2.90        | 2.11        | 0.50        | 0.70        |
| <b>6. Religion</b>                     | <b>1.59</b> | <b>1.86</b> | <b>1.50</b> | <b>1.76</b> | <b>1.86</b> | <b>2.16</b> |
| Caucasians                             | 1.26        | 1.71        | 1.27        | 1.62        | 1.23        | 2.00        |
| Hispanics                              | 2.03        | 1.99        | 1.71        | 1.87        | 3.00        | 2.16        |
| African Americans                      | 1.84        | 1.99        | 1.81        | 1.99        | 2.00        | 2.80        |
| <b>7. Seeking Emotional Support</b>    | <b>2.52</b> | <b>1.64</b> | <b>2.44</b> | <b>1.63</b> | <b>2.52</b> | <b>1.62</b> |
| Caucasians                             | 2.85        | 1.61        | 2.91        | 1.70        | 2.78        | 1.42        |
| Hispanics                              | 2.07        | 1.67        | 2.10        | 1.51        | 2.00        | 2.23        |
| African Americans                      | 1.84        | 1.63        | 1.72        | 1.34        | 2.50        | 0.71        |
| <b>8. Seeking Instrumental Support</b> | <b>2.78</b> | <b>1.61</b> | <b>2.80</b> | <b>1.66</b> | <b>2.77</b> | <b>1.60</b> |
| Caucasians                             | 2.91        | 1.49        | 2.91        | 1.56        | 2.92        | 1.32        |
| Hispanics                              | 2.85        | 1.91        | 2.86        | 1.88        | 2.86        | 2.19        |
| African American                       | 2.23        | 1.48        | 2.36        | 1.57        | 1.50        | 0.70        |
| <b>9. Denial</b>                       | <b>1.57</b> | <b>1.75</b> | <b>1.46</b> | <b>1.73</b> | <b>1.87</b> | <b>1.81</b> |
| Caucasians                             | 1.42        | 1.66        | 1.36        | 1.67        | 1.57        | 1.70        |
| Hispanics                              | 1.64        | 1.76        | 1.42        | 1.63        | 2.28        | 2.10        |
| African American                       | 1.92        | 2.10        | 1.81        | 2.18        | 2.50        | 2.12        |
| <b>10. Venting</b>                     | <b>2.95</b> | <b>1.74</b> | <b>2.83</b> | <b>1.71</b> | <b>3.31</b> | <b>1.83</b> |
| Caucasians                             | 3.35        | 1.63        | 3.33        | 1.67        | 3.38        | 1.61        |
| Hispanics                              | 2.75        | 1.86        | 2.33        | 1.71        | 4.00        | 1.82        |
| African American                       | 2.00        | 1.58        | 2.27        | 1.55        | 0.50        | 0.70        |
| <b>11. Substance Abuse</b>             | <b>0.84</b> | <b>1.45</b> | <b>0.96</b> | <b>1.60</b> | <b>0.43</b> | <b>0.72</b> |
| Caucasians                             | .092        | 1.52        | 1.12        | 1.72        | 0.43        | 0.76        |
| Hispanics                              | 0.71        | 1.41        | 0.76        | 1.57        | 0.57        | 0.79        |
| African America                        | 0.77        | 1.23        | 0.91        | 1.30        | 0.00        | 0.00        |
| <b>12. Self-Blame</b>                  | <b>2.34</b> | <b>1.81</b> | <b>2.00</b> | <b>1.78</b> | <b>3.04</b> | <b>1.83</b> |
| Caucasians                             | 2.53        | 1.96        | 2.18        | 1.95        | 3.46        | 1.71        |
| Hispanics                              | 1.96        | 1.67        | 1.66        | 1.49        | 2.85        | 1.95        |
| African American                       | 1.92        | 1.70        | 2.10        | 1.75        | 1.00        | 1.41        |
| <b>13. Aggression</b>                  | <b>7.66</b> | <b>5.73</b> | <b>7.43</b> | <b>5.70</b> | <b>8.31</b> | <b>5.92</b> |
| Caucasians                             | 7.97        | 5.39        | 7.96        | 5.75        | 8.00        | 4.88        |
| Hispanics                              | 6.85        | 5.94        | 5.30        | 5.04        | 11.28       | 6.44        |
| African American                       | 8.23        | 6.72        | 9.72        | 6.18        | 0.00        | 0.00        |

Table 4. Factor Loadings for Subscales of the Brief COPE

| Subscales                       | Factor |      |      |      |
|---------------------------------|--------|------|------|------|
|                                 | 1      | 2    | 3    | 4    |
| 1. Active Coping                | .74    |      |      |      |
| 2. Planning                     | .81    |      |      |      |
| 3. Positive Reframing           | .76    |      |      |      |
| 4. Aggressive Coping            |        | .82  |      |      |
| 5. Denial                       |        | .56  |      |      |
| 6. Self Blame                   |        | .66  |      |      |
| 7. Humor                        |        | .52  |      |      |
| 8. Seeking Emotional Support    |        |      | .82  |      |
| 9. Seeking Instrumental Support |        |      | .81  |      |
| 10. Acceptance                  |        |      |      | .66  |
| 11. Venting                     |        |      |      | .78  |
| Substance Abuse                 |        |      |      |      |
| Religion                        |        |      |      |      |
| Eigenvalues                     | 3.2    | 1.95 | 1.62 | 1.3  |
| % of the Variance Explained     | 24.5   | 15   | 12.5 | 10.1 |



Table 5. Level of Seriousness and Frequency for Self Report Delinquencies

| <b>Delinquency</b>   | <b>Seriousness</b> | <b>Frequency</b> |
|--|--------------------|------------------|
| 1. Purposely damaged or destroyed property belonging to your parents or other family members?  | 1                  | 51 (55%)         |
| 2. Purposely damaged or destroyed property belonging to a school?  | 2                  | 35 (38%)         |
| 3. Purposely damaged or destroyed other property that did not belong to you, not counting family or school property?                               | 3                  | 41 (44%)         |
| 4. Stolen or tried to steal a motor vehicle, such as a car or a motorcycle?  | 4                  | 14 (15%)         |
| 5. Stolen or tried to steal something worth more than 50\$?  | 3                  | 30 (32%)         |
| 6. Knowingly bought, sold or held stolen goods or tried to do any of these things?   | 3                  | 32 (34%)         |
| 7. Drunk alcoholic beverages, beer, wine or hard liquor? *   | 0                  | 86 (93%)         |
| 8. Thrown objects such as rocks, snow- balls, or bottles at cars or people?  | 0                  | 85 (91%)         |
| 9. Run away from home?   | 0                  | 85 (91%)         |
| 10. Lied about your age to gain entrance or to purchase some thing. for example, lying about your age to buy liquor or get into a movie or a club? | 2                  | 24 (26%)         |
| 11. Carried a hidden weapon other than a plain pocket knife?   | 1                  | 24 (26%)         |
| 12. Stolen or tried to steal things worth \$5 or less?   | 2                  | 36 (39%)         |
| 13. Attacked someone with the idea of seriously hurting or killing him or her?   | 4                  | 25 (27%)         |
| 14. Taken marijuana or hashish ("POT", "GRASS", "HASH")?   | 0                  |                  |
| 15. Been involved in gang fights?  | 3                  | 24 (26%)         |
| 16. Sold marijuana or hashish ("POT", "GRASS", "HASH")?  | 4                  | 22 (24%)         |
| 17. Cheated on school tests  | 0                  | 86 (93%)         |
| 18. Hitchhiked where it was illegal to do so?  | 0                  | 86 (93%)         |
| 19. Stolen money or other things from your parents or other members of your family?  | 1                  | 28 (30%)         |
| 20. Had or tried to have sexual relations with someone against their will?   | 4                  | 2 (2%)           |
| 21. Sold hard drugs such as heroin, cocaine, and LSD?  | 4                  | 7 (8%)           |
| 22. Taken a vehicle for a ride or drive without the owner's permission?  | 4                  | 17 (18%)         |
| 23. Pressured or pushed someone such as a date or a friend to do more sexually than they wanted to do?   | 4                  | 1 (1%)           |
| 24. Used force or strong-arm methods to get money or things from other students?   | 4                  | 11 (4%)          |
| 25. Used force or strong-arm methods to get money or things from a teacher or other adult at school?   | 4                  | 3 (3%)           |
| 26. Avoided paying for such things as movies, bus rides and food?  | 2                  | 21 (23%)         |
| 27. Stolen or tried to steal things worth less than \$50?  | 3                  | 29 (31%)         |
| 28. Broken or tried to break into a building or vehicle to steal something or just look around?  | 4                  | 21 (23%)         |
| 29. Physically hurt or threatened to hurt someone to get them to have sex with you?  | 4                  | 1 (1%)           |
| 30. Taken Marijuana?*  | 0                  | 47 (51%)         |
| 31. Taken Hard drugs?*   | 0                  | 15 (16%)         |

Table 6. Means and Standard Deviations for Stressors, Delinquency, and Psychopathology

|                                      | Total Sample |              | Males        |              | Females      |              |
|--------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                                      | M            | SD           | M            | SD           | M            | SD           |
| <b>Number of Stressors</b>           | <b>3.07</b>  | <b>2.02</b>  | <b>2.93</b>  | <b>2.11</b>  | <b>3.52</b>  | <b>1.71</b>  |
| Caucasians                           | 3.00         | 2.03         | 2.81         | 2.21         | 3.00         | 2.03         |
| Hispanics                            | 2.88         | 1.94         | 2.57         | 1.77         | 3.83         | 2.31         |
| African Americans                    | 3.81         | 2.22         | 4.00         | 2.26         | 2.00         | *            |
| <b>Seriousness of Delinquency:</b>   | <b>3.55</b>  | <b>1.50</b>  | <b>3.63</b>  | <b>1.43</b>  | <b>3.28</b>  | <b>1.71</b>  |
| Caucasians                           | 3.58         | 1.48         | 3.78         | 1.34         | 3.07         | 1.75         |
| Hispanics                            | 3.36         | 1.49         | 3.15         | 1.60         | 4.00         | 0.89         |
| African Americans                    | 3.83         | 1.70         | 4.10         | 1.28         | 2.50         | 3.53         |
| <b>Seriousness of Delinquency:</b>   | <b>1.96</b>  | <b>1.49</b>  | <b>2.08</b>  | <b>1.47</b>  | <b>1.62</b>  | <b>1.52</b>  |
| Caucasians                           | 1.74         | 1.54         | 1.97         | 1.52         | 1.20         | 1.52         |
| Hispanics                            | 2.24         | 1.32         | 2.13         | 1.39         | 2.57         | 1.10         |
| African Americans                    | 2.23         | 1.58         | 2.36         | 1.56         | 1.50         | 2.21         |
| <b>Internalizing psychopathology</b> | <b>58.05</b> | <b>12.70</b> | <b>55.50</b> | <b>12.38</b> | <b>64.95</b> | <b>11.10</b> |
| Caucasians                           | 58.29        | 14.20        | 54.56        | 13.32        | 66.28        | 13.04        |
| Hispanics                            | 58.65        | 9.21         | 57.52        | 10.29        | 61.83        | 5.84         |
| African Americans                    | 55.81        | 13.20        | 54.90        | 13.54        | 65.00        | *            |
| <b>Externalizing psychopathology</b> | <b>89.29</b> | <b>15.58</b> | <b>89.26</b> | <b>15.23</b> | <b>89.38</b> | <b>15.53</b> |
| Caucasians                           | 92.59        | 11.16        | 92.70        | 11.29        | 92.35        | 11.30        |
| Hispanics                            | 79.82        | 21.37        | 79.35        | 21.59        | 81.16        | 22.70        |
| African Americans                    | 95.90        | 5.00         | 95.80        | 5.26         | 97.00        | *            |

Table 7. Pearson Product Moment Correlations for the Brief COPE Scales

|                                | 1     | 2     | 3     | 4     | 5     | 6     | 7    | 8     | 9     | 10    | 11   | 12  | 13 |
|--------------------------------|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|------|-----|----|
| <b>1. Active Coping</b>        |       |       |       |       |       |       |      |       |       |       |      |     |    |
| <b>2. Planning</b>             | .48** |       |       |       |       |       |      |       |       |       |      |     |    |
| <b>3. Positive Reframing</b>   | .38** | .52** |       |       |       |       |      |       |       |       |      |     |    |
| <b>4. Aggressive Coping</b>    | -.05  | -.14  | -.14  |       |       |       |      |       |       |       |      |     |    |
| <b>5. Denial</b>               | .14   | .31** | .30*  | .21   |       |       |      |       |       |       |      |     |    |
| <b>6. Self Blame</b>           | .11   | .17   | .14   | .45** | .38** |       |      |       |       |       |      |     |    |
| <b>7. Humor</b>                | .02   | .01   | .032  | .38** | .1    | .19   |      |       |       |       |      |     |    |
| <b>8. Emotional Support</b>    | .11   | .19   | .23*  | .10   | .25*  | .31** | .01  |       |       |       |      |     |    |
| <b>9. Instrumental Support</b> | .17   | .33** | .35** | .08   | .34** | .33** | .14  | .57** |       |       |      |     |    |
| <b>10. Acceptance</b>          | .10   | .15   | .13   | .03   | .015  | .07   | .20  | .29** | .29** |       |      |     |    |
| <b>11. Venting</b>             | .00   | -.04  | -.05  | .55** | .01   | .29** | .23* | .32** | .23*  | .32** |      |     |    |
| <b>12. Substance Abuse</b>     | .21   | .23*  | .27*  | .32** | .26*  | .19   | .13  | .02   | .05   | -.03  | .11  |     |    |
| <b>13. Religion</b>            | .24*  | .24*  | .12   | .1*   | .35** | .14   | .19  | .07   | .16   | .08   | -.12 | .14 |    |

\*p<0.05

\*\* p<0.01

Figure 1. Path model testing coping factors as predictors of delinquency, internalizing, and externalizing psychopathology

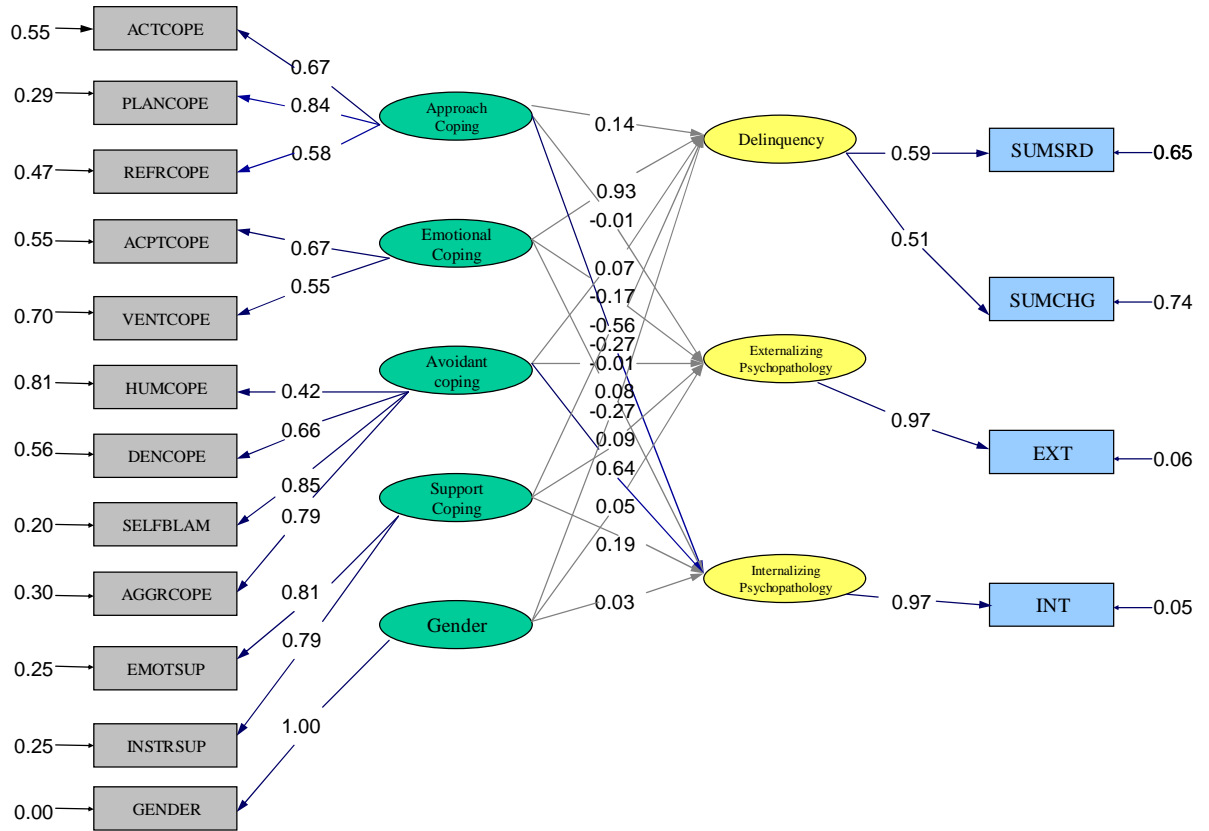
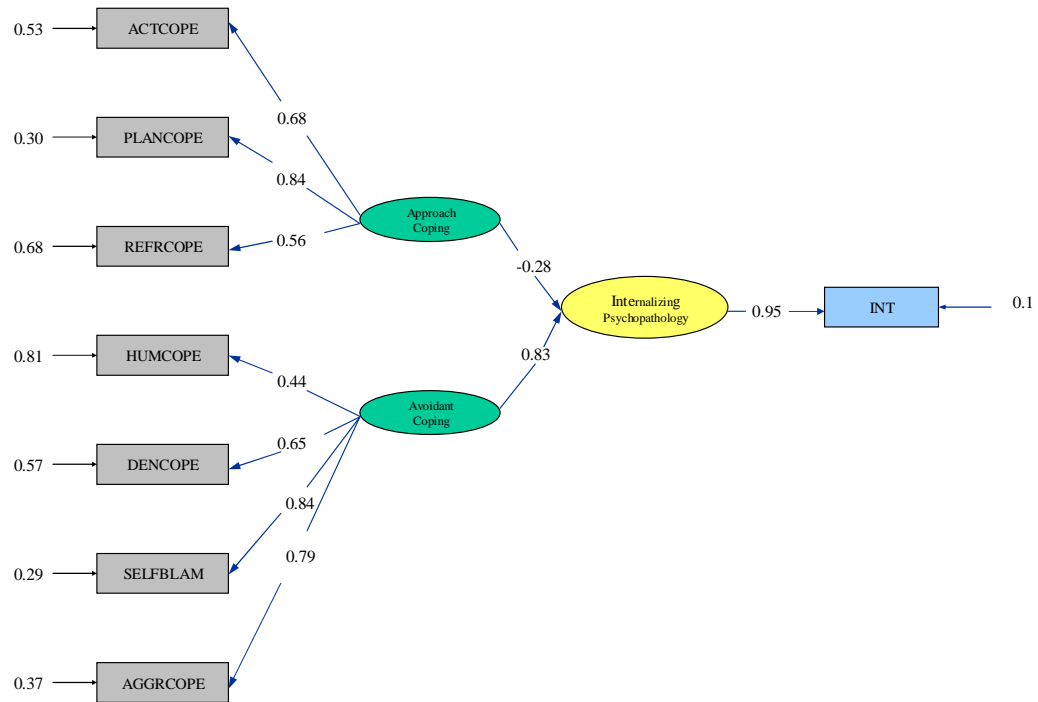


Figure 2. Final path model testing avoidant and approach coping as predictors of internalizing psychopathology



## APPENDIX

### MEASURES

#### The Brief COPE questionnaire

Respond to each of the following items by circling one number from 0 to 3 for each item, using the response choices listed just below. Please try to respond to each item separately in your mind from each other item. Choose your answers thoughtfully, and make your answers as true FOR YOU as you can. Please answer every item. There are no “right” or “wrong” answers, so choose the most accurate answer for YOU—not what you think “most people” would say or do.

Indicate what YOU usually do when YOU experience a stressful or challenging event.

0 = I usually **don't do** this at all.

1 = I usually do this a **little bit**

2 = I usually do this a **medium** amount

3 = I usually do this **a lot**

|  |   |   |   |   |
|--|---|---|---|---|
| 1. I turn to work or other activities to take my mind off things.          | 0 | 1 | 2 | 3 |
| 2. I concentrate my efforts on doing something about the situation I'm in. | 0 | 1 | 2 | 3 |
| 3. I say to myself “this isn't real”.                                      | 0 | 1 | 2 | 3 |
| 4. I use alcohol or other drugs to make myself feel better.                | 0 | 1 | 2 | 3 |
| 5. I slam doors or punch walls   | 0 | 1 | 2 | 3 |
| 6. I get emotional support from others.                                    | 0 | 1 | 2 | 3 |
| 7. I give up trying to deal with it.                                       | 0 | 1 | 2 | 3 |
| 8. I take action to try to make the situation better.                      | 0 | 1 | 2 | 3 |
| 9. I threaten to harm someone  | 0 | 1 | 2 | 3 |
| 10. I refuse to believe that it has happened.                              | 0 | 1 | 2 | 3 |

0 = I usually **don't do** this at all.  
 1 = I usually do this a **little bit**  
 2 = I usually do this a **medium** amount  
 3 = I usually do this a **lot**

|   |   |   |   |   |
|---|---|---|---|---|
| 11. I say things to let my unpleasant feelings escape.  | 0 | 1 | 2 | 3 |
| 12. I get help and advice from other people.  | 0 | 1 | 2 | 3 |
| 13. I use alcohol or other drugs to help me get through it.   | 0 | 1 | 2 | 3 |
| 14. I destroy something or damage property  | 0 | 1 | 2 | 3 |
| 15. I try to see it in a different light, to make it seem more positive.  | 0 | 1 | 2 | 3 |
| 16. I criticize myself.   | 0 | 1 | 2 | 3 |
| 17. I try to come up with a strategy about what to do.  | 0 | 1 | 2 | 3 |
| 18. I use force (like hitting, kicking, pushing, or holding down) against someone   | 0 | 1 | 2 | 3 |
| 19. I get comfort and understanding from someone.   | 0 | 1 | 2 | 3 |
| 20. I use or threaten to use a knife or a gun against someone   | 0 | 1 | 2 | 3 |
| 21. I give up the attempt to .  | 0 | 1 | 2 | 3 |
| 22. I look for something good in what is happening.   | 0 | 1 | 2 | 3 |
| 23. I make jokes about it.  | 0 | 1 | 2 | 3 |
| 24. I do something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping. | 0 | 1 | 2 | 3 |
| 25. I shout or yell at someone  | 0 | 1 | 2 | 3 |
| 26. I accept the reality of the fact that it has happened.  | 0 | 1 | 2 | 3 |

|   |   |   |   |   |
|---|---|---|---|---|
| 27. I express my negative feelings.                                 | 0 | 1 | 2 | 3 |
| 28. I insult or swear at someone                                    | 0 | 1 | 2 | 3 |
| 29. I try to find comfort in my religion or spiritual beliefs.      | 0 | 1 | 2 | 3 |
| 30. I express anger to the person who caused the problem            | 0 | 1 | 2 | 3 |
| 31. I try to get advice or help from other people about what to do. | 0 | 1 | 2 | 3 |
| 32. I learn to live with it.  | 0 | 1 | 2 | 3 |
| 33. I think hard about what steps to take.                          | 0 | 1 | 2 | 3 |
| 34. I blame myself for things that happen.                          | 0 | 1 | 2 | 3 |
| 35. I pray or meditate.   | 0 | 1 | 2 | 3 |
| 36. I make fun of the situation.                                    | 0 | 1 | 2 | 3 |



## Self Reports Delinquency Questionnaire

We would like to ask you some questions about your own behavior and experiences in the last year. Please give your best estimate of the exact NUMBER of the times you have done or experienced each of the following things in the last 12 months. Remember, this questionnaire will NOT become part of your evaluation file. Your responses for the following questions will be used for research purposes only. They will NOT be reported to the court, probation officer, or your parents. The information you provide here will be anonymous and confidential. PLEASE DO NOT WRITE YOUR NAME ON THIS FORM.

### How many times in the last 12 months have you?

2. purposely damaged or destroyed property belonging to your parents or other family members? \_\_\_\_\_
2. purposely damaged or destroyed property belonging to a school? \_\_\_\_\_
3. purposely damaged or destroyed other property that did not belong to you, not counting family or school property? \_\_\_\_\_
9. stolen or tried to steal a motor vehicle, such as a car or a motorcycle? \_\_\_\_\_
10. stolen or tried to steal something worth more than 50\$? \_\_\_\_\_
11. been beaten up by your mother or father? \_\_\_\_\_
12. been attacked with a weapon, such as a gun, knife, bottle or chair by someone other than your mother or father? \_\_\_\_\_
13. been beaten up by someone else other than your mother or father? \_\_\_\_\_
14. knowingly bought, sold or held stolen goods or tried to do any \_\_\_\_\_

of these things?

- 15. found something like a wallet or some jewelry and returned it to the owner or the police? \_\_\_\_\_
- 16. drunk alcoholic beverages, beer, wine or hard liquor? \_\_\_\_\_
- 17. thrown objects such as rocks, snow- balls, or bottles at cars or people? \_\_\_\_\_
- 13. run away from home? \_\_\_\_\_
- 14. lied about your age to gain entrance or to purchase something. for example, lying about your age to buy liquor or get into a movie or a club? \_\_\_\_\_
- 15. carried a hidden weapon other than a plain pocket knife? \_\_\_\_\_
- 16. stolen or tried to steal things worth \$5 or less? \_\_\_\_\_
- 17. attacked someone with the idea of seriously hurting or killing him or her? \_\_\_\_\_
- 18. taken marijuana or hashish ("POT", "GRASS", "HASH")? \_\_\_\_\_
- 19. been paid for having sexual relations with someone? \_\_\_\_\_
- 20. had sexual intercourse with a person? \_\_\_\_\_
- 21. been involved in gang fights? \_\_\_\_\_
- 22. sold marijuana or hashish ("POT", "GRASS", "HASH")? \_\_\_\_\_
- 23. cheated on school tests \_\_\_\_\_
- 24. hitchhiked where it was illegal to do so? \_\_\_\_\_

25. helped out someone who was badly hurt  
such as someone who was beaten up,  
has been in an accident or was very sick? \_\_\_\_\_
26. stolen money or other things from  
your parents or other members of  
your family? \_\_\_\_\_
27. had or tried to have sexual relations with  
someone against their will? \_\_\_\_\_
28. hit or threatened to hit a teacher or  
an adult at school? \_\_\_\_\_
29. hit or threatened to hit one of your parents? \_\_\_\_\_
30. taken hard drugs such as heroin,  
cocaine, and LSD? \_\_\_\_\_
31. hit or threatened to hit other students? \_\_\_\_\_
32. been loud, rowdy, or unruly in a public place? \_\_\_\_\_
33. sold hard drugs such as heroin,  
cocaine, and LSD? \_\_\_\_\_
34. taken a vehicle for a ride or drive without  
the owner's permission? \_\_\_\_\_
35. bought or provided liquor for a minor? \_\_\_\_\_
36. given money, food, or clothing to  
someone or some group who needed  
them very much? \_\_\_\_\_
37. pressured or pushed someone such as a date  
or a friend to do more sexually than they  
wanted to do? \_\_\_\_\_
38. used force or strong-arm methods to  
get money or things from other students? \_\_\_\_\_
39. used force or strong-arm methods  
to get money or things from a teacher  
or other adult at school? \_\_\_\_\_

- 40. refused to participate when another student asked you to help him or her cheat on an exam? \_\_\_\_\_
- 41. avoided paying for such things as movies, bus rides and food? \_\_\_\_\_
- 42. been drunk in a public place? \_\_\_\_\_
- 43. stolen or tried to steal things worth less than \$50? \_\_\_\_\_
- 44. broken or tried to break into a building or vehicle to steal something or just look around? \_\_\_\_\_
- 45. skipped classes without an excuse? \_\_\_\_\_
- 46. physically hurt or threatened to hurt someone to get them to have sex with you? \_\_\_\_\_
- 47. tried to talk your friends out of doing something that was against the law? \_\_\_\_\_

## REFERENCES

- Agnew, R. (2001). Building on the foundation of general strain theory: Specifying the types of strain most likely to lead to crime and delinquency. *Journal of Research in Crime and Delinquency*, 38, 319-361.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders (DSM-IV-TR) (4<sup>th</sup> ed.)*. Washington, D.C.: American Psychiatric Association.
- Arnett, J. J. (2000). Emerging adulthood: a theory of development from the late teens through the twenties. *American Psychologist*, 55, 469–480.
- Austenfeld, J. L., & Stanton, A. L. (2004). Coping through emotional approach: A new look at emotion, coping and health-related outcomes. *Journal of Personality*, 72, 1335–1363.
- Ayers, T. S., Sandler, I. N., West, S. O., & Roosa, M. W. (1996). A dispositional and situational assessment of children's coping: Testing alternative models of coping. *Journal of Personality*, 64, 923-958.
- Barnes, G. M., Farrell, M. P., & Banerjee, S. (1994). Family influences on alcohol abuse and other problem behaviors among Black and White adolescents in a general population sample. *Journal of Research on Adolescence*, 4, 183-201.
- Bernzweig, J., Eisenberg, N., & Fabes, R. A. (1993). Children's coping in self-and other-relevant contexts. *Journal of Experimental Child Psychology*, 55, 208-226.
- Bettencourt, B. A., & Miller, N. (1996). Gender differences in aggression as a function of provocation: A meta-analysis. *Psychological Bulletin*, 119, 422-447.
- Blaney, P.H., (1986). Affect and memory: a review. *Psychological Bulletin*, 99(2),

229-246.

- Boekaerts, M. (1996). Coping with stress in childhood and adolescence. In M. Zeidner, & N. S. Endler (Eds.), *Handbook of coping: Theory, research, applications* (pp. 452-484). Oxford: John Wiley & Sons.
- Brezina, T. (2000). Delinquent problem-solving: An interpretative framework for criminological theory and research. *Journal of Research in Crime and Delinquency, 37*, 3-30.
- Brown, S. L., & Ireland, C. A. (2006). Coping style and distress in newly incarcerated male adolescents. *Journal of Adolescent Health, 38*, 656-61.
- Carver, C. S. (1997). You want to measure coping but your protocol's too long: Consider the brief COPE. *International Journal of Behavioral Medicine, 4*, 92-100.
- Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology, 56*, 267-283.
- Chesney-Lind, M. & Shelden R. G. (2004). *Girls, delinquency and juvenile justice*. Belmont, CA: Wadsworth/ Thomson Learning
- Chiles, J. A., Miller, M. L., & Cox, G. B. (1980). Depression in an adolescent delinquent population. *Archives of General Psychiatry, 37*, 1179-1184.
- Clarke, G. N., Rohde, P., Lewinsohn, P. M., Hops, H., & Seeley, J. R. (1999). Cognitive-behavioral treatment of adolescent depression: Efficacy of acute group treatment and booster sessions. *Journal of the American Academy of Child and Adolescent Psychiatry, 38*, 272-279.

- Codega, S. A., Pasley, B. K., & Kreutzer, J. (1990). Coping behaviors of adolescent mothers: An exploratory study and comparison of Mexican-Americans and Anglos. *Journal of Adolescent Research, 5*, 34-53.
- Compas, B. E. (1987). Coping with stress during childhood and adolescence. *Psychological Bulletin, 101*, 393-403.
- Compas, B. E., Connor-Smith, J. K., Saltzman, H., Thomsen, A. H., & Wadsworth, M. E. (2001). Coping with stress during childhood and adolescence: Problems, progress, and potential in theory and research. *Psychological Bulletin, 127*, 87-127.
- Cook, L. S. (2001). Adolescent addiction and delinquency in the family system. *Issues in Mental Health Nursing, 22*, 151-157.
- Cook, P. J., & Moore, M. H. (1999). Guns, Gun control, and homicide: A review of research and public policy. In M. S. Dwayne, & M. A. Zahn, *Homicide: A sourcebook of social research* (pp. 277-296). Thousand Oaks, CA: Sage Publications.
- Coyne, J. C., & Gottlieb, B. H. (1996). The mismeasure of coping by checklist. *Journal of Personality, 64*, 959-991.
- Coyne, J. C., & Racioppo, M. W. (2000). Never the twain shall meet? Closing the gap between coping research and clinical intervention research. *American Psychologist, 55*, 655-664.
- Cramer, P. (1998). Coping and defense mechanisms: What's the difference? *Journal of Personality, 66*, 919-946.
- Crocker, J., & Major, B. (1989). Social stigma and self-esteem: The self-protective properties of stigma. *Psychological Review, 96*, 608-630.

- Davis, M., & Emory, E. (1995). Sex differences in neonatal stress responsivity. *Child Development, 66*, 14-27.
- Delligatti, N., Akin-Little, A., & Little S. G. (2003). Conduct disorder in girls: Diagnostic and intervention issues. *Psychology in the Schools, 40*, 183-192.
- DeMatteo, D., Marczyk. (2005) Risk factors, protective factors, and the prevention of antisocial behavior among juveniles. In: K. Heilbrun, N. E. S. Goldstein, R. E. Redding (Eds.). *Juvenile delinquency: Prevention, assessment, and intervention* (pp.19-44). New York, NY, US: Oxford University Press.
- Dempsey, M. (2002). Negative coping as mediator in the relation between violence and outcomes: Inner city African American youth. *American Journal of Orthopsychiatry, 72*, 102-109.
- Department of Health and Human Services. (2001). *Youth violence: A report of the surgeon general*. Rockville, MD: Author.
- Dohrenwend, B. S., Krasnoff, L., Askenasy, A. R., & Dohrenwend, B. P. (1978). Exemplification of a method for scaling life events: The PERI Life Events Scale. *Journal of Health and Social Behavior, 19*, 205-229.
- Dumont, M., & Provost, M. A. (1999). Resilience in adolescents: Protective role of social support, coping strategies, self-esteem, and social activities on experience of stress and depression. *Journal of Youth and Adolescence, 28*, 343-363.
- Ebata, A. T., & Moos, R. H. (1994). Personal, situational, and contextual correlates of coping in adolescence. *Journal of Research on Adolescence, 4*, 99-125.
- Eftekhari, A., Turner, A. P., & Larimer, M. E. (2004). Anger expression, coping, and substance use in adolescent offenders. *Addictive Behavior, 29*, 1001-1008.



- Eisenberg, N., Fabes, R. A., & Guthrie, I. K. (1997). Coping with stress: The role of regulation and development. In S. A. Wolchik & I. N. Sandler (Eds.), *Handbook of children's coping: Linking theory and intervention* (pp. 41-70). New York: Plenum Press.
- Elliott, D. S., (1994). Serious violent offenders: Onset, developmental course, and termination- the American society of criminology 1993 presidential address. *Criminology*, 32, 1-21
- Elliott, D. S., Huizinga, D., & Ageton, S. (1985). *Explaining Delinquency and Drug Use*. Beverly Hills: Sage Publications.
- Farrington, D. P. (1989). Early predictors of adolescent aggression and adult violence. *Violence & Victims*, 4, 79-100.
- Farrington D. P. (1997). A critical analysis of research on the development of antisocial behavior from birth to adulthood. In D. M. Stoff, J. Breiling, J. D. Maser., *Handbook of antisocial behavior*(pp. 234-240). Hoboken, NJ: John Wiley and Sons.
- Felner, R. D., Brand, S., DuBois, D. L., Adan, A., Mulhall, P., & Evans, E. (1995). Socioeconomic disadvantage, proximal environmental experiences, and socioemotional and academic adjustment in early adolescence: Investigation of a mediated effects model. *Child Development*, 66, 774-792.
- Fields, L., & Prinz, R. J. (1997). Coping and adjustment during childhood and adolescence. *Clinical Psychology Review*, 17, 937-976.

- Flannery, D. J., Hussey, D. & Jefferis, E. (2005). Adolescent delinquency and violent behavior. In T. P. Gullotta & G.R. Adams (Eds.), *Adolescent behavioral problems* (pp.415-438). New York: Springer
- Folkman, S., & Moskowitz, J. T. (2004). Coping: Pitfalls and promise. *Annual Review of Psychology*, 55, 745-774.
- Garrido, M., & Velasquez R. (2006). Interpretation of Latino/Latina MMPI-2 profiles: Review and application of empirical findings and cultural linguistic considerations. In J.N. Butcher (Ed.), *MMPI-2 a Practitioner's guide* (pp.477-504). Washington, DC: American Psychological Association.
- Giese-Davis, J., Hermanson, K., Koopman, C., et al. (2000). Quality of couples relationship and adjustment to metastatic breast cancer. *Journal of Family Psychology*, 14,251-266.
- Goldstein, A. P., & Glick, B. (1994). Aggression replacement training: Curriculum and evaluation. *Simulation & Gaming*, 25, 9-26.
- Goldstein, N. S., Olubadewo, S., Redding, R. E., & Lexcen, F. (2005). Mental health disorders: The neglected risk factor in delinquency. In K. Heilbrun, N. S. Goldstein, & R. E. Redding (Eds.), (pp. 85-110). New York: Oxford University
- Gomez, R. (1998). Locus of control and avoidant coping: Direct, interactional and mediational effects on maladjustment in adolescents *Personality and Individual Differences*, 24, 325–334.
- Gonzales, N., & Kim, L. S. (1997). Stress and coping in an ethnic minority context: Children's cultural ecology. In S. Wolchik & I. N. Sandler (Eds.), *Handbook of*

*children's coping: Linking theory and intervention* (pp. 481-511). New York: Plenum Press.

Gorman-Smith, D., & Loeber, R. (2005). Are developmental pathways in disruptive behaviors the same for girls and for boys? *Journal of Child and Family Studies*, *14*, 15-27.

Grant, K. E., O'Koon, J. H., Davis, T. H., Roache, N. A., Poindexter, L. M., Armstrong, M. L., et al. (2000). Protective factors affecting low-income urban African American youth exposed to stress. *Journal of Early Adolescence*, *20*, 388-417.

Greve, W. (2001). Imprisonment of juveniles and adolescents: Deficits and demands for developmental research. *Applied Developmental Science*, *5*, 21-36.

Griffith, M. A., Dubow, E. F., & Ippolito, M. F. (2000). Developmental and cross-situational differences in adolescents' coping strategies. *Journal of Youth & Adolescence*, *29*, 183-204.

Haan, N. (1965). Coping and defense mechanisms related to personality inventories. *Journal of Consulting Psychology*, *29*, 373-378.

Halstead, M., Johnson, S. B., & Cunningham, W. (1993). Measuring coping in adolescents: An application of the Ways of Coping Checklist. *Journal of Clinical Child Psychology*, *22*, 337-344.

Hanson, R. W., & Gerber, K. E. (1990) *Coping with Chronic Pain: A Guide to Patient Self-Management*. New York: Guilford Press.

Harrison, A., Wilson, M., Pine, C., Chan, S., & Buriel, R. (1990). Family ecologies of ethnic minority children. *Child Development*, *61*, 347-362.

- Hawkins, J.D., Herrenkohl, T., Farrington, D.P., Brewer, D., Catalano, R.F., and Harachi, T.W. (1998). A review of predictors of youth violence. In R. Loeber and D.P. Farrington. (Eds.), *Serious and Violent Juvenile Offenders: Risk Factors and Successful Interventions* (pp. 106-146) Thousand Oaks, CA: Sage Publications.
- Hawkins, D., Laub, J., Lauristen, J., & Cothorn, L. (2000). *Race, ethnicity and serious and violent juvenile offending*. Washington DC: OJJDP Juvenile Justice Bulletin.
- Herman-Stahl, M., & Petersen, A. C. (1999). Depressive symptoms during adolescence: Direct and stress-buffering effects of coping, control beliefs, and family relationships. *Journal of Applied Developmental Psychology, 20*, 45-62.
- Herrenkohl, T. I., Maguin, E., Hill, K. G., Hawkins, J. D., Abbott, R. D., & Catalano, R. F. (2000). Developmental risk factors for youth violence. *Journal of Adolescent Health, 26*, 176-186.
- Hoge, R. D., Andrews. D. A. (1996). *Assessing the youthful offender issues and techniques*. New York: Plenum.
- Hughes, D., Rodriguez, J., & Smith E. P. (2006). Parents' ethnic-racial socialization practices: A review of research and directions for future study. *Developmental Psychology, 42*, 747-770.
- Huizinga, D., R. Loeber, & T. Thornberry (1993). Delinquency, Drug Use, Sex, and Pregnancy Among Urban Youth. *Public Health Reports, 108*, 90-96.
- Ireland, J. L., Boustead, R., & Ireland C. A., (2005). Coping style and psychological health among adolescent prisoners: A study of young and juvenile offenders. *Journal of Adolescence, 28*, 411-423.

- Johnson, S. M., Hunsley, J., Greenberg, L., & Schindler, D. (1999). Emotionally focused couples therapy: status and challenges. *Clinical Psychology Science and Practice*, 6, 67-79.
- Kandel, E., Mednick, S. A., Kirkegaard-Sorensen, L., Hutchings, B., Knop, J., Rosenberg, R., & Schulsinger, F. (1988). IQ as a protective factor for subjects at high risk for antisocial behavior. *Journal of Consulting & Clinical Psychology*, 56, 224-226.
- Kant, G. L., D'Zurilla, T. J., & Maydeu-Olivares, A. (1997). Social problem solving as a mediator of stress-related depression and anxiety in middle-aged and elderly community residents. *Cognitive Therapy Research*, 21, 73-96.
- Karoly, P. (1993). Mechanisms of self-regulation: A systems view. *Annual Review of Psychology*, 44, 23-52.
- Kashani, J. H., Jones, M. R., Bumby, K. M., & Thomas, L. A. (1999). Youth violence: Psychosocial risk factors, treatment, prevention, and recommendations. *Journal of Emotional & Behavioral Disorders*, 7, 200-210.
- Kelley, B. T., Loeber, R., Keenan, K., & DeLamatre, M. (1997). Developmental patterns in Boys' disruptive and delinquent behavior. *Juvenile Justice Bulletin*, December 1997.
- Kendall, P. C. (1990). *Coping Cat Workbook*. Ardmore, PA: Workbook Publishing
- Kiser, L. J., & Black, M. M. (2005). Family processes in the midst of urban poverty: What does the trauma literature tell us? *Aggression and Violent Behavior*, 10, 715-750.

- Kliewer, W., Lepore, S. J., Oskin, D., & Johnson, P. D. (1998). The role of social and cognitive processes in children's adjustment to community violence. *Journal of Consulting and Clinical Psychology, 66*, 199-209.
- Kohn, P. M. (1996). On coping adaptively with daily hassles. In M. Zeidner & N. S. Endler (Eds.), *Handbook of coping: Theory, research, applications* (pp. 181-201). New York: John Wiley & Sons.
- Krisberg, B., & Wolf, A.M. (2005). Juvenile offending. In K. Heilburn, N.E.S. Goldstein, A. M. Wolf (Eds.), *Juvenile Delinquency: Prevention, assessment, and intervention* (pp.67-84). New York: Oxford University Press.
- Kumpfer, K. L., & Alvarado, R. (2003). Family-strengthening approaches for the prevention of youth problem behaviors. *American Psychologist, 58*, 457-465.
- Lahey, B. B., Moffitt, T.E., & Caspi, A. (2003). *Causes of Conduct Disorder and juvenile delinquency*. New York: The Guilford Press.
- Lazarus, R. S. (1993). Coping theory and research, past, present and future. *Psychosomatic Medicine, 55*, 234-247.
- Lazarus, R. S. (1996). The role of coping in the emotions and how coping changes over the life course. In C. Magai, & S. H. McFadden (Eds.), *Handbook of emotion, adult development, and aging* (pp. 289-306). San Diego: Academic Press.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, Appraisal, and Coping*. New York: Springer.
- Lengua, L. J., Sandler, I. N., West, S. G., Wolchik, S. A., & Curran, P. J. (1999). Emotionality and self-regulation, threat appraisal, and coping in children of divorce. *Development & Psychopathology, 11*, 15-37.

- Lexcen, F., & Redding, R.E. (2000). Mental health needs of juvenile offenders. *Juvenile Correctional Mental Health Report*, 3, 8-16.
- Lioffi, C., & Hatira, P. (2003). Clinical hypnosis in the alleviation of procedure related pain in paediatric oncology patients. *International Journal of Clinical Experimental Hypnosis*. 51, 4-28.
- Lipsey, M. W., & Derzon, J. H. (1998). Predictors of violent and serious delinquency in adolescence or early adulthood: A synthesis of longitudinal research. In R. Loeber & D. P. Farrington (Eds.), *Serious and violent juvenile offenders: Risk factors and successful interventions* (pp. 86-105). Thousand Oaks, CA: Sage
- Loeber, R., Farrington, D. P., Stouthamer-Loeber, M., Moffitt, T. F., & Caspi, A. (1998). The development of male offending: Key findings from the first decade of the Pittsburgh Youth Study. *Studies on Crime & Crime Prevention*, 7, 141-171.
- Loeber, R., & Farrington, D. P. (1998). Never too early, never too late: Risk factors and successful interventions for serious and violent juvenile offenders. *Studies on Crime and Crime Prevention*, 7, 7-30.
- Loeber, R., & Farrington, D. P. (2000). Young children who commit crime: Epidemiology, developmental origins, risk factors, early interventions, and policy implications. *Development & Psychopathology*, 12, 737-762.
- Loeber, R., Wung, P., Keenan, K., Giroux, B., Stouthamer-Loeber, M., Van Kammen, W.B., and Maughan, B. (1993.) *Developmental pathways in disruptive child behavior*. *Development and Psychopathology*, 5, 103-133.

- Loeber, R., & Keenan, K. (1994). The interaction between conduct disorder and its comorbid conditions: Effects of age and gender. *Clinical Psychology Review, 14*, 497-523.
- Loeber, R., Keenan, K., & Zhang, Q. (1997). Boys' experimentation and persistence in developmental pathways toward serious delinquency. *Journal of Child and Family Studies, 6*, 321-357.
- Maguin, E., & Loeber, R. (1996). How well do ratings of academic performance by mothers and their sons correspond to grades, achievement test scores, and teachers' ratings. *Journal of Behavioral Education, 6*, 405-425.
- Matthews, G., & Wells, A. (1996). Attentional processes, dysfunctional coping, and clinical intervention. In M. Zeidner & N. S. Endler (Eds.), *Handbook of coping: Theory, research, applications* (pp. 573-601). New York: John Wiley & Sons.
- Moffitt, T. E. (1993). Adolescent-limited and life-course-persistent antisocial behavior: A developmental taxonomy. *Psychological Review, 100*, 674-701.
- Moffitt, T. E. (2003). Life-course persistent and adolescence-limited antisocial behavior: A 10-year research review and a research agenda. In B. B. Lahey, T. E. Moffitt, & A. Caspi (Eds.), *Causes of conduct disorder and juvenile delinquency* (pp. 49-75). New York: Guilford Press.
- Moffitt, T. E., & Caspi, A. (2001): Childhood predictors differentiate life-course persistent and adolescence-limited antisocial pathways among males and females. *Development & Psychopathology, 13*, 355-375.



- Moffitt, T. E., Caspi, A., Rutter, M., & Silva, P. A. (2001). *Sex differences in antisocial behaviour: Conduct disorder, delinquency, and violence in the Dunedin Longitudinal Study*. Cambridge, UK: Cambridge University Press.
- Moos, R. H., & Billings, A. G. (1982). Conceptualizing and measuring coping resources and coping processes. In L. Goldberger and S. Berznitz (Eds.), *Handbook of stress: theoretical and clinical aspects* (pp.212-230). New York: Free Press.
- Morling, E., & Evered, S. (2006). Secondary control reviewed and defined. *Psychological Bulletin*, *132*, 569-296.
- Njoku, M. G., Jason, L. A., & Torres-Harding, S. R. (2005). The relationships among coping styles and fatigue in an ethnically diverse sample. *Ethnicity and Health*, *10*, 263-278.
- Okazaki, S., & Sue, S. (1995). Methodological issues in assessment research with ethnic minorities. *Psychological Assessment*, *7*, 367-375.
- Olweus, D.(1980). Familial and temperamental determinants of aggressive behavior in adolescent boys: A causal analysis. *Developmental Psychology*, *16*, 644-660.
- O'shuaghnessy, R.J. (1992). Clinical aspects of forensic assessment if juvenile offenders. *Psychiatric Clinics of North America*, *15*, 721-735
- Parker, J.D.A., & Endler, N. S. (1996). Coping and Defense: A historical review. In M. Zeidner & N. S. Endler (Eds.), *Handbook of coping: theory, research, applications*. (pp. 3-23). New York: John Wiley & Sons, INC.
- Perkins, D.F. (2001). *Adolescence: Developmental Tasks*. Gainesville, FL: University of Florida Extension.

- Phelps, S. B., & Jarvis, P. A. (1994). Coping in adolescence: Empirical evidence for a theoretically based approach to assessing coping. *Journal of Youth & Adolescence, 23*, 359-371.
- Phinney, J. S., & Haas, K. (2003). The process of coping among ethnic minority first-generation college freshmen: A narrative approach. *Journal of Social Psychology, 143*, 707-726.
- Power, T. (2004). Stress and coping in childhood: the parent's role. *Parenting: Science and Practice, 4*, 271-317.
- Quinsey, V. L., Skilling, T. A., Lalumiere, M. L., & Cariag, W. M. (2004). *Juvenile delinquency*. Washington, DC: American Psychological Association.
- Rasmussen, A., Aber, M. S., & Bhana, A. (2004). Adolescent coping and neighborhood violence: Perceptions, exposure, and urban youths' efforts to deal with danger. *American Journal of Community Psychology, 33*, 61-75.
- Redding, R. E., & Arrigo B. (2005). Multicultural perspectives on juvenile delinquency: Etiology and intervention. In C. Frisby & C. Reynolds (Eds.). *Handbook of multicultural school psychology* (pp.710-743). New York, NT: Wiley.
- Redding, R. E., & Lexcen, F. J. (2005). Mental health disorders: the neglected risk factor in juvenile delinquency. In K. Heilbrun, N. E. S. Goldstein, & R. E. Redding (Eds.) *Juvenile delinquency: Prevention, assessment, and intervention* (pp. 232-256). New York: Oxford University Press.
- Redding, R. E., & Mrozoski, B. (2005). Adjudicatory and dispositional decision making in juvenile justice. In K. Heilbrun, N. E. S. Goldstein, & R. E. Redding (Eds.)

- Juvenile delinquency: Prevention, assessment, and intervention* (pp. 232-256).  
New York: Oxford University Press.
- Richters, J. E., & Martinez, P. E. (1993) 'Violent communities, family choices, and children's chances: An algorithm for improving the odds'. *Development and Psychopathology* 5, 609-627.
- Rohde, P., Jorgensen, J. S., Seeley, J. R., et al. (2004). Pilot evaluation of the coping course: a cognitive-behavioral intervention to enhance coping skills incarcerated youth. *Journal of the American Academy of Child & Adolescent Psychiatry*, 43, 669-76.
- Rosario, M., Salzinger, S., Feldman, R. S., & Ng-Mak, D.S. (2003). Community violence exposure and delinquent behaviors among youth: the moderating role of coping. *Journal of Community Psychology*, 31, 489-512.
- Rosella, J. (1994). Review of adolescent coping research: Representation of key demographic variables and methodological approaches to assessment. *Issues in Mental Health Nursing*, 15, 483-495.
- Roth, S., & Cohen, L. J. (1986). Approach, avoidance, and coping with stress. *American Psychologist*, 41, 813-819.
- Rowe, D. C., Vazsonyi, A. T., & Flannery, D. J. (1995). Sex differences in crime: Do means and within-sex variation have similar causes? *Journal of Research in Crime & Delinquency*, 32, 84-101.
- Ruchkin, W., Eisemann, M., & Hagglof, B. (1999). Coping styles in delinquent Adolescents and controls: The Role of Personality and Parental Rearing. *Journal of Youth and Adolescence*, 28, 705-717.

- Rutter, M. (2003). Crucial paths from risk indicator to causal mechanism. In B. B Lahey, T. E. Moffitt, & A. Caspi (Eds.), *Causes of conduct disorder and juvenile delinquency* (pp. 3-24). New York: Guilford Press.
- Ryan, E. P., & Redding, R. E. (2004). A review of mood disorders among juvenile offenders. *Psychiatric Services, 55*, 1397-1407.
- Sandler, I., Tein, J., & West, S. (1994). Coping, stress, and the psychological symptoms of children of divorce: A cross-sectional and longitudinal study. *Child Development, 65*, 1744-1763.
- Sandler, I. N., Wolchik, S. A., MacKinnon, D., Ayers, T. S., & Roosa, M. W. (1997). Developing linkages between theory and intervention in stress and coping processes. In S. A. Wolchik & I. N. Sandler (Eds.), *Handbook of children's coping: Linking theory and intervention* (pp. 3-40). New York: Plenum Press.
- Schaeffer, C. M., & Borduin, C. M. (2005). *Long-term follow-up to a randomized clinical trial of multisystemic therapy with serious and violent juvenile offenders. Journal of Consulting and Clinical Psychology, 73*, 445-453.
- Schwarzer, R., & Schwarzer, C. (1996). A critical survey of coping instruments. In M. Zeidner, & N. S. Endler (Eds.), *Handbook of Coping: Theory, Research, Applications* (pp. 107-132). New York: John Wiley & Sons.
- Seiffge-Krenke, I. (1993). Developmental Processes in self-concept and coping behavior. In H. Bosma & S. Jackson (Eds.), *Coping and self-concept in adolescence* (pp. 51-68). Berlin, Germany: Springer

- Seiffge-Krenke, I., & Klessinger, N. (2000). Long-term effects of avoidant coping on adolescents' depressive symptoms. *Journal of Youth and Adolescence, 29*, 617–630.
- Skinner, E. A., Edge, K., Allman, J., & Sheerwood, H. (2003). Searching for the structure of coping: A review and critique of category systems for classifying ways of coping. *Psychological Bulletin, 129*, 216-269.
- Snyder, H. N. (2002). *Juvenile arrests 2000*. Washington, DC: US Department of Justice
- Spaccarelli, S. (1994). Stress, appraisal, and coping in child sexual abuse: A theoretical and empirical review. *Psychological Bulletin, 116*, 340-362.
- Spivack, G., & Shure, M. B. (1982). The cognition of social Adjustment: Interpersonal cognitive problem solving thinking. In B. b. Lahey & A. E. Kazdin (Eds.). *Advances in clinical child psychology* (pp.323-372). New York: Plenum.
- Steiner, H., Garcia, I. g., & Matthews, Z. (1997). Posttraumatic stress disorder in incarcerated juvenile delinquents. *Journal of American Academy of Child and Adolescent psychiatry, 36*, 357-365.
- Stern, M., & Zevon, M. A. (1990). Stress, coping, and family environment: The adolescent's response to naturally occurring stressors. *Journal of Adolescent Research, 5*, 290-305.
- Stouthamer-Loeber, M., Loeber, R., Wei, E., Rarrington, D., & Wikstroem, P. H. (2002). Risk and promotive effects in the explanation of persistent serious delinquency in boys. *Journal of Consulting & Clinical Psychology, 70*, 111-123.

- Sussman, S., Simon, T. R., Dent, C. W., et al. (1999). One-year prediction of violence perpetration among high-risk youth. *American Journal of Health Behavior* 1999, 23, 332-44.
- Tarakeshwar, N., Hansen, N. B., Kochman, A., & Sikkema, K. J. (2005). Gender, ethnicity, and spiritual coping among bereaved HIV-positive individuals. *Mental Health, Religion, and Culture*, 8, 109-125.
- Thornberry, T P., & Marvin D. K. (2000.) The Self-report method for measuring delinquency and crime. in D. Duffee, R. D. Crutchfield, S. Mastrofski, L. Mazerolle, D. McDowall, & B. Ostrom (Eds.), *CJ 2000: Innovations in Measurement and Analysis* (pp. 33-83). Washington, DC: National Institute of Justice.
- Tobin, D. L., Holroyd, K. A., Reynolds, R. V., & Wigal, J. K. (1989). The hierarchial factor structure of the Coping Strategies Inventory. *Cognitive Therapy & Research*, 13, 343-361.
- Tolan, P. H., Gorman-Smith, D., Henry, D., Chung, K., & Hunt, M. (2002). The relation of patterns of coping of inner-city youth to psychopathology symptoms. *Journal of Research on Adolescence*, 12, 423-449.
- Valliant, G. E. (1993). *Ego mechanisms of defense: A guide for clinicians and researchers*. Washington, DC: American Psychiatric Press.
- Vaillant, G. E. (2000). Adaptive mental mechanisms: Their role in a positive psychology. *American Psychologist*, 55, 89-98.
- Vermeiren, R. (2003). Psychopathology and delinquency in adolescents: a descriptive and developmental perspective. *Clinical Psychological Review* 23, 277-318.

- Wadsworth, M. E., & Compas, B. E. (2002). Coping with family conflict and economic strain: The adolescent perspective. *Journal of Research on Adolescence, 12*, 243-274.
- Wadsworth, M. E., Raviv, T., Compas, B. E., & Connor-Smith, J. (2005). Parent and adolescent responses to poverty-related stress: Tests of mediated and moderated coping models. *Journal of Child and Family Studies, 14*, 283-298.
- Walker, L. S., Smith, C. A., Garber, J., & Van Slyke, D. A. (1997). Development and validation of the pain response inventory for children. *Psychological Assessment, 9*, 392-405.
- Weisz, J., McCabe, M., & Dennig, M. (1994) Primary and secondary control among children undergoing medical procedures: Adjustment as a function of coping style. *Journal of Consulting and Clinical Psychology, 6*, 324-332.
- Wills, T. A., McNamara, G., & Vaccaro, D. (1995). Parental education related to adolescent stress-coping and substance use. *Health Psychology, 14*, 464-478.
- Windle, M. (1999). *Alcohol use among adolescents*. Thousand Oaks, CA: Sage Publications, Inc.
- Wolfgang, M.E., Figlio, R. E., Tracy, P. E., & Singer, S. I. (1985). *The national Survey of Crime Severity*. Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics
- Zeidner, M., & Saklofske, D. (1996). Adaptive and maladaptive coping. In M. Zeidner & N. S. Endler (Eds.), *Handbook of coping, theory, research and applications* (pp. 505-531). New York: John Wiley & Sons.

Zaff, J. F., Blount, R. L., Phillips, L., & Cohen, L. (2002). The role of ethnic identity and self-construal in coping among African American and Caucasian American seventh graders: An exploratory analysis of within-group variance. *Adolescence*, 37, 751-773.