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It's Not All ACEs: The Role of Negative Parental Influences and Criminal Thinking in Juvenile Offending Behaviors

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ABSTRACT

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by

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The role of adverse childhood experiences (ACEs) and criminal thinking in causing criminal behavior has been explored extensively in criminal justice research. Based on the concepts of ACEs and the Psychological Inventory of Criminal Thinking Scale, the negative parental influences and criminal thinking styles of 1,354 juvenile offenders were examined to establish that negative parental influences and criminal thinking are separately associated with juvenile problem and offending behavior, and that criminal thinking mediates the relationship between negative parental influences and juvenile problem and offending behavior. Analyses showed support for criminal thinking as a pathway from negative parental influences to juvenile problem and offending behavior. Focuses for juvenile offender intervention programs are suggested.

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Chapter 1. Introduction

It is estimated that a property crime is committed every 4.4 seconds in the United States, and every 26.2 seconds someone is victimized by a violent crime (Federal Bureau of Investigation [FBI], 2018). That equates to about 2,880 violent crimes per day. With the combined costs of the U.S. justice system as well as the harms to victims and damage to property, the cost of crime is approximately $287 million (Hyland, 2019; McCollister et al., 2010). This high cost is one of the reasons that the ultimate goal of most criminal justice research is to explain and reduce criminal behavior. Understanding criminal behavior makes reduction efforts more effective, which lowers the harms and costs of crime. A lot of research focuses on the causes of crime, which is used to inform intervention efforts on who and what to target in treatment and prevention programs in order to maximize their impact on crime reduction. Juvenile offending is an important topic in criminal justice research focusing on the causes of crime because juveniles offer an opportunity for early intervention and prevention of future offending.

Since past offending behavior is one of the best predictors for continued offending (Andrews et al., 2012; Gendreau et al., 1996) and early onset of offending behavior is indicative of persistent offending behavior into adulthood (Barrett & Katsiyannis, 2016) it is important that criminal justice professionals develop an understanding of how to identify and prevent or divert the juveniles at risk of offending. Understanding why juveniles offend makes it possible to develop prevention and intervention programs that would be more effective at reducing crime since they would target specific needs that the juvenile has instead of being a blanket reaction to criminal behavior in general.

Juveniles account for about 7% of all arrests in the U. S., and they are responsible for almost 10% of arrests for violent crimes and over 11% of property crimes (FBI, 2019). While 7% may not sound concerning, that is a total of 553,620 juveniles arrested; including 38,283 arrests for violent crimes and 95,116 for property crimes (FBI, 2019). These crimes cost society approximately $20 million, including estimations of the costs of crimes (McCollister et al., 2010) as well as the costs of the U.S. justice system (Hyland, 2019). While research suggests that there is typically a small portion of the juvenile offenders that will persist into adult offending, these offenders will account for a large proportion of crimes (Livingston et al., 2008; Moffitt, 1993), which means that these chronic offenders end up costing society more than the typical offender would. Because the initial and eventual harms done by these juvenile offenders is so great, the reduction of these crimes for just one cohort would financially and socially benefit society for many years. Juveniles who begin to offend at a young age, specifically those pre-pubescent or under the age of 14, are most likely to be the high-risk, chronic offenders that continue their criminal behaviors into adulthood and are responsible for large proportions of crime (Barrett & Katsiyannis, 2016; Livingston et al., 2008). Therefore, if crime is to be effectively reduced, prevention and intervention efforts meant to reduce offending and recidivism rates of juveniles should target high-risk juveniles and chronic juvenile offenders and be informed by research.

Current prevention and intervention programs typically include mentoring, counseling, education, behavior training/skill building, vocational training, monitoring, restitution, deterrence, or discipline (Lipsey, 2009). Counseling and skill building are two therapeutic programs that are shown to be effective at preventing offending, reducing recidivism, and changing the thinking patterns of juvenile offenders (Bogestad et al., 2010; Jewell et al., 2015; Lipsey, 2009). In order to further reduce juvenile crime, the effectiveness of these two programs

could be increased by ensuring that the correct interventions are used for different offender groups. Since research indicates that therapeutic interventions in general are more effective than other program types for high-risk groups (Lipsey, 2009), counseling and skill building programs could be more effective if they were specifically used with the high-risk juveniles and chronic offenders. Additionally, juveniles whose psychological and social developments have been negatively impacted would likely benefit the most from counseling and skill building programs since those are aspects covered in the two programs (Bogestad et al., 2010; Lipsey, 2009).

Reducing crime could be accomplished more efficiently if the prevention and intervention programs were used in a way that maximized their abilities. By targeting high-risk juveniles and chronic juvenile offenders with the programs that address relevant criminogenic factors, the societal harm caused by juvenile crime could be reduced. However, the most important step of maximizing the effectiveness of prevention and intervention programs is first understanding the factors that impact criminal behavior and how these factors interact. Two factors, negative parental influence and criminological thinking, will be discussed in the current study. These two factors were chosen because they are both aspects of the most effective intervention programs, yet little is known about their relationship.

Current Study

Research has established the relationship between parental influences and offending (Loeber & Farrington, 1998; Schroder et al., 2010; Williams & Steinberg, 2011) as well as between criminal thinking and offending (Folk et al., 2018; Walters, 2020a), however, research has not examined the relationship between all three variables, negative parental influence, criminal thinking, and juvenile problem and offending behaviors. The purpose of the current study was to determine that relationship. Understanding the relationship between negative

parental influence, criminal thinking, and juvenile offending would enhance research in the field of criminal justice by expanding on existing research. Cuadra and colleagues (2014), for instance, have connected child maltreatment and criminal thinking in their research on adult offending in an attempt to explain the pathway between child maltreatment and offending. The current study expanded upon this study by looking at different early-life adversities and criminal thinking and by examining the pathway from the two variables to juvenile offending instead of adult offending. Also, the current research contributed to the ultimate goal of most criminal justice research, explaining and reducing criminal behavior, by exploring a new pathway to criminal behavior and by helping prevention and intervention programs become more effective through understanding how factors of criminal behavior interact.

Influences on Criminal Behavior

There are many factors that influence criminal behavior. Some factors have more of an effect than others, and there are also interactive effects. Andrews and Bonta (2010) identified eight criminogenic risk factors that research has consistently shown to have a strong correlation with continued offending. These "central eight" consist of a history of antisocial behavior, antisocial personality characteristics, antisocial cognitions, antisocial associates, problems in home/family life, problems at school/work, antisocial leisure activities, and substance abuse (Andrews & Bonta, 2010). The first four factors are found to be consistent and major predictors of criminal behavior and are referred to as the "big four," while the other four factors, the "modest four," have a significant but weaker relationship with criminal behavior (Andrews & Bonta, 2010). The concepts included in the current study have significant relationships with all of the big four criminogenic risk factors and with most of the moderate four. This relationship

with the central eight risk factors justifies why it is important to look at the relationship between negative parental influences, criminal thinking, and juvenile problem and offending behaviors.

Negative Parental Influence

Understanding how negative parental influences impact offending behaviors and why it is relevant in the current study must begin with discussing adverse childhood experiences (ACEs). The 10 ACEs originally measured were psychological abuse, physical abuse, sexual abuse, substance abuse, mental illness, mother treated violently, and criminal behavior in the household (Felitti et al., 1998). In their groundbreaking study, Felitti and colleagues (1998) found a strong positive relationship between adult health problems and adverse childhood experiences (ACEs), including abuse and household dysfunction. They found the same relationship between ACEs and behaviors such as drug use, promiscuity, and alcoholism (Felitti et al., 1998). Building on this, the questions in the ACE study have been used to measure the relationship between ACEs and other outcomes, such as criminal behavior.

Overall, approximately one-third of all children are exposed to at least one ACE (Turney, 2018). Research on prevalence of ACEs in offenders has found that juvenile offenders report about three times the number of ACEs as the non-offending population, are more likely to have experienced ACEs, more likely to have experienced multiple ACEs, higher ACE scores have a strong relationship with time to and risk of juvenile recidivism, and that early onset and serious, violent, chronic (SVC) juvenile offenders can be predicted by the cumulative effects of ACEs (Baglivio et al., 2014; Baglivio et al., 2020; Duke et al., 2010; Fox et al., 2015; Levenson et al., 2016; Wolff et al., 2017). ACEs are clearly and strongly linked with the most damaging and expensive type of criminal behavior; SVC offending. Treatment and prevention programs can be more effective if more is known about the relationship between ACEs and juvenile offending.

There is one component of the original ACE study that has been largely neglected in the previous literature; the collective impact of the negative influences of only the parents on juvenile problem and offending behaviors.

Parental influence is apparent in the ACE categories, yet the relation of this aspect and criminal behavior has not been looked at separately in research. Measures of ACEs consider early adversities experienced from anyone in the household which can include parents, aunts, uncles, grandparents, caregivers, cousins, siblings, family friends, or strangers (sexual abuse does not specify that the perpetrator be a household member; Felitti et al., 1998). There is no distinction in research on ACEs between the adverse influences of parents or strangers. This shortcoming could mean that there is information missing in the understanding of how early adversity impacts offending behaviors. ACEs committed by parents could have a more serious influence on offending behaviors of juveniles than the same ACEs committed by family friends. Levenson and colleagues (2016) expressed the concern that ACEs resulting from someone close to the juvenile, like a parent, could have a much more severe impact on their functioning because of the heightened perception of betrayal.

The current study looked at the relationship between negative parental influences in relation to criminal thinking and juvenile offending and problem behavior in order to determine if the negative parental influences correlate with the other two variables in a similar way that ACEs does. This also revealed whether the effects on problem and offending behaviors are similar if only the influences of parents are considered. Understanding more about this topic is important if prevention and intervention programs are to effectively treat the high-risk and chronic offending juveniles; especially considering that this target group of juvenile offenders

are more likely than other juvenile offending groups to have experienced early-life adversities (Barrett & Katsiyannis, 2016).

Criminal Thinking

Walters's (1995) Psychological Inventory of Criminal Thinking Styles (PICTS) is a popular measure for criminal thinking among offenders. The eight elements of thinking measured in PICTS are based on a lifestyle theory of criminality which acknowledges an interaction between the environment and cognition and decision making (Walters, 1995). Criminogenic cognitions include thoughts that encourage, justify, or lessen cognitive dissonance regarding committing criminal acts (Walters, 1995). Thinking styles may be categorized as either proactive or reactive, where proactive thinking includes neutralizing and planning, and reactive thinking includes impulsivity and emotionality (Walters, 2018).

Elements of thinking in the PCT style include *mollification*, which is when criminal behavior is justified or rationalized by shifting the blame off oneself and onto others and the harm caused is denied or minimized (Cuadra et al., 2014; Walters, 2011). S*uperoptimism* is the overoptimism about one's ability to avoid being caught and/or punished (Cuadra et al., 2014; Walters, 2011). PCT also includes two related thinking elements, *entitlement* and *power orientation*, that entail having a sense of privilege and believe the expectations and norms of society do not apply to them, and a drive to gain power and control over others, respectively (Cuadra et al., 2014; Walters, 2011).

Reactive criminal thinking (RCT) is typically developed early in adolescence through aspects of parenting (Walters, 2018). RCT includes elements of thinking. *Cutoff* is the removal of deterring factors to offending behaviors, such as fear or anxiety, and may be accomplished through cognition alone or with substance abuse (Cuadra et al., 2014; Walters, 2011). *Cognitive*

indolence includes poor problem-solving and critical-reasoning skills, and *discontinuity* comprises low self-control and inconsistent thought processes (Cuadra et al., 2014; Walters, 2011).

Overall, research has identified criminal thinking as an important risk factor for criminal behavior (Walters & DeLisi, 2013) and a predictor for future or continued criminal behavior and recidivism (Folk et al., 2018; Walters, 2020a). Influences on and effects of criminal thinking are evident in research, however, the relationship of this concept with other factors that influence criminal behavior is complex and not fully understood. As previously mentioned, studies have considered criminal thinking as a mediating factor between criminal behavior and another variable, however none have tested its mediating relationship between negative parental influences and juvenile offending and problem behavior. The current study determined whether the relationship between criminal thinking and negative parental influences is similar to the relationship between criminal thinking and other variables that influence criminal behavior. This topic is important to understand as fully as possible since risk/need assessments are informed by criminal thinking aspects. Decisions regarding treatment, probation, and parole consider the risk/need assessments of offenders, so better understanding the concepts of the assessments could increase their predictive abilities and reduce recidivism even further.

Definition of Terms

For the purposes of the current study, juvenile offending means any violent or non-violent criminal acts that juveniles commit. Problem behaviors refer to behaviors that juveniles engage in that are either illegal behaviors specific to juveniles, such as running away, or behaviors that are not necessarily illegal, but are associated with offending or delinquent behavior, such as getting suspended from school. Problem behaviors are beneficial to look at

because they can help predict serious, chronic offenders, which is the group that heavily contributes to a large proportion of crimes.

Negative parental influences are conditions and behaviors that are resultant only from the influences of the juvenile's parents (biological, step, or adopted). The ACEs study did show the importance of behaviors and conditions from parents and household members, but the current study will only consider these negative influences imposed by the parents; not other household members. Parenting styles are not included in the negative parental influences for this study, however the presence or absence of certain behaviors, such as hostility or warmth, are characteristics of some parenting styles. Criminal thinking is defined as attitudes that reflect the criminal thinking styles outlined by Walters's (1995) PICTS. The attitudes may be reactive or proactive, following the same characteristics that Walters (2018) used for proactive and reactive criminal thinking.

Theory

Many theories of what causes criminal behavior exist, but the current study was based on theoretical assumptions with biological and social explanations for the emergence and continuation of problem and criminal behavior. Two theoretical perspectives provide the assumptions that the current study is based off of. The relationship between negative parental influence, criminal thinking, and the onset of delinquency is first explained through the biological developmental pathway. Then, four social theories are used to understand how social circumstances impact offending behaviors. All of the theories propose likely developmental pathways that begin with negative parental influences and impact offending behavior through the development of criminal thinking.

Theoretical Perspectives

The current study is based off of the assumptions made by two major perspectives. First, the latent trait perspective is used in considering the offending patterns of SVC offenders. Moffitt (1993) created a taxonomy of juvenile offenders that categorized them into one of two offending patterns, adolescence-limited and life-course-persistent. The latter group represented the smaller but more criminally prolific group, which Moffitt (1993) recognized as the group whose criminality needed to be explained. This group would exhibit problem and antisocial behaviors early in life and present an early onset of criminal behaviors (Moffitt, 1993). Research has supported this taxonomy and found that this group is also more likely to have experienced some types of negative parental influences (Barrett & Katsiyannis, 2016) and is more likely to engage in criminal thinking (Walters, 2020a).

Next, the population heterogeneity perspective is relied on in explaining the underlying causes of the continued criminal behavior that accounts for the SVC group experiencing negative parental influences and engaging in criminal thinking more than other offenders. This perspective attributes the root causes of criminal behavior to individual or personality differences embedded or developed in early life (Nagin & Paternoster, 2000). Causal factors that increase one's propensity for criminal behavior that is developed in early life is limited to aspects of the personality or biology (Nagin & Paternoster, 2000). The latent trait perspective is a variation of population heterogeneity that claims that there is an underlying trait that is developed early in life and does not change as the individual ages, thus explaining all of the criminality of the individual (Cernkovich & Giordano, 2001). These latent traits are debated but can include the effects of negative parental influences and criminal thinking.

Developmental Pathways

Criminal thinking and many of the dimensions of negative parental influences are intimately related to problem and offending behaviors through the process of maladaptation (Toth & Cicchetti, 2013). Developmental psychopathology posits that adversity experienced early in life is likely to lead to the interruption or degeneration of normal brain development and, subsequently, worse social, cognitive, and psychological functioning (Toth & Cicchetti, 2013). The interruption of proper brain development early in life later impacts the child's ability to process information and act or react appropriately (Toth & Cicchetti, 2013). Levenson and colleagues (2016) further explained the pathway from early adversity to maladaptation as a biopsychosocial process. In this process, the effects of early adversity are a function of stress; adversity causes stress, which elicits stress-related hormones (Fox et al., 2015; Levenson et al., 2016). Prolonged exposure to the stress-related hormones can permanently alter the brain's chemical composition and impair the growth and connection pathways of neurons in the brain which leads to dysfunction and deficits in social, emotional, and cognitive functioning (Fox et al., 2015; Levenson et al., 2016). Levenson and colleagues (2016) cited these impairments as reasons that individuals who experience early adversities tend to engage in risky behaviors in order to cope with the constant distress. Early adversity makes risky, violent, and offending behavior more likely because of the long-lasting damage done during brain development (Fox et al., 2015; Levenson et al., 2016; Toth & Cicchetti, 2013). The damage from the oversaturation of stress-related chemicals negatively impacts the individual's ability to process information, make decisions, properly express and understand emotions, and appropriately act or react (Fox et al., 2015; Levenson et al., 2016; Toth & Cicchetti, 2013).

Impairment of social, emotional, and cognitive functioning is highly relevant to offending behavior because aspects of all of these components have been found to influence criminal behavior. For instance, offenders are more likely to have low self-control, an inability to regulate emotions, or to be impulsive (DeLisi & Vaughn, 2014; Gottfredson & Hirschi, 1990). Cognitive impairments include faulty reasoning and decision-making processes favorable of risk-taking and antisocial attitudes (Andrews & Bonta, 2010; Toth & Cicchetti, 2013). These factors are so strongly related to offending that they are among the most commonly targeted risk factors in offender treatment (Andrews & Bonta, 2010; Looman & Abracen, 2013).

These developmental pathways may be useful in explaining the association between juvenile offending and negative parental influences such as parental discord, hostility, mental illness, low warmth, and substance use. Many of the negative parental influences tend to subject the child to stressful environments, often for a prolonged period of time. The biological developmental pathways can also explain the deficit in cognition and processing that is related to criminal thinking.

Social Theories

Attachment theory explains socialization as a process in which the development of a child's social, cognitive, and emotional skills are dependent on the quality of the relationship with the parents (Grusec & Davidov, 2010). The degree to which a child can rely on its parents for responsiveness to distress shapes the child's ability to regulate their negative emotions, such as anger and stress, as well as the development of their empathetic capabilities (Grusec & Davidov, 2010). Parents can have a negative influence on the social development of their children through neglectful, abusive, or irregular behaviors (Grusec & Davidov, 2010). An insecure attachment style may be formed if the parent is not responsive enough to the child's

distress early in life (Grady et al., 2017). Children with insecure attachment styles are characterized by deficits in empathy and emotional regulation because the lack of parental responsiveness results in the parent not teaching the child empathy for others or an appropriate way to regulate their emotionality in response to distress (Grady et al., 2017; Grusec & Davidov, 2010). These outcomes make antisocial behavior easier to engage in since neutralization techniques could be employed to make it easier for the offender to blame others and negate any harm done.

The general theory of crime is centered on the role of self-control in offending behaviors. Specifically, Gottfredson and Hirschi (1990) posited that low self-control was the cause of criminal behavior, and this low self-control was shaped early in life by the level of parental monitoring and control of the child's behaviors. Low self-control, then, was the outcome of low parental monitoring because these parents either did not know about the negative behaviors their child was engaging in or they irregularly knew about it and failed to correct the child (Gottfredson & Hirschi, 1990). Inconsistent or a lack of punishment allows the child to engage in negative behaviors without inhibition or fear of punishment, thus they never learn how to effectively restrain their behaviors or delay their gratification, which increases the risk of engaging in criminal behaviors (Gottfredson & Hirschi, 1990; Pratt & Cullen, 2000).

Social learning theories also recognize the impact that failing to effectively parent can have, but the focus is on what parents teach their children through modeling and the shaping of their attitudes and cognitions (Unnever et al., 2006). Differential association is the process through which criminal definitions are learned (Sutherland, 1947). According to Bandura and colleagues (1961), children learn and are highly likely to imitate behaviors modeled to them; especially violent behavior. Sutherland (1947) stated that the primary group has the most

influence on the behaviors and attitudes learned by an individual since the child has a lot of contact with this group and, consequently, the most exposure to their attitudes and definitions towards offending. This means that the behaviors modeled from the parents will likely have great influence over the behaviors and attitudes that the child learns and imitates. Physical and verbal violence between the parents teaches the child how to be violent and aggressive, and it also conveys to the child that violence and aggression are permitted and effective ways to interact and communicate (Bandura et al., 1961; Sutherland, 1947). When parents engage in illegal or violent acts, they model the behaviors to their children who are likely to repeat, internalize, or at least normalize that behavior (Bandura et al., 1961; Sutherland, 1947; Unnever et al., 2006). According to differential reinforcement theory, if the offending or problem behavior that the child engages in is reinforced or not punished, it will likely be repeated (Akers et al., 1979).

Because of a parent's influence, a child's cognition can be developed to support attitudes, definitions, and actions that are favorable towards crime and antisocial behavior (i.e., criminal thinking), which will make it more likely that the child engages in criminal or antisocial behaviors (Akers et al., 1979; Unnever et al., 2006). This process of social learning means that children who experience a violent household (e.g., parental discord and hostility) are likely to be exposed to aggressive and violent behaviors. Children experiencing this, then, may be more likely to also engage in problem and offending behaviors since they are modeled behaviors and attitudes that are violent, aggressive, and potentially pro-criminal.

Social learning theories are typically not used in conjunction with the general theory of crime, but there are aspects of negative parental influence included in the current study that need to be accounted for through both of the theories. For instance, monitoring is key in the general theory of crime, but it cannot account for the effects of parental drug use or discord between

parents. Using both of the theories to explain criminal behavior can result in a more thorough understanding of how the factors relate (Pratt & Cullen, 2000; Unnever et al., 2006).

General strain theory is the last criminological theory that the current study will use to explain the onset of criminal and problem behaviors. Agnew's (1992) general strain theory proposed that individuals engage in antisocial and offending behaviors when they try to cope with, relieve, or avoid strains, namely the removal of something positive, the addition of something negative, or the failure to achieve goals. Negative parental influences, such as hostility, mental illnesses, substance use, parental discord, and separation/divorce, could result in one of the three strains mentioned. These experiences would add negative stimuli and/or remove positive stimuli, increasing the chances that the child will have to find a way to cope with, relieve, or avoid the strain and associated emotions; often through problem or offending behaviors (Agnew, 1992). Bunch and colleagues (2018) found that low self-control can be a mediating factor in strains from negative parental influence and offending as a means of coping with or relieving the strain. This suggests that strain could have a similar impact on children that low parental monitoring and excessive discipline have; meaning that strain may also impact criminal thinking. This relationship between strain and criminal thinking could be indirect through self-control or direct since cognitive development is impaired when the child is subjected to prolonged environmental stress (Levenson et al., 2016).

Hypotheses

The overarching research question for the current study asks if criminal thinking is a mediating factor between negative parental influence and juvenile offending. A separate relationship between the three variables must exist in order to support the research question. Hypotheses 1 and 3 are based on the previous research that says there is a relationship between

parenting and offending behavior (Fox et al., 2015; Wolff et al., 2017) and criminal thinking and offending behavior (Folk et al., 2018; Walters, 2020a). Also, hypotheses 2 and 4 are based on findings relevant to SVC juvenile offenders. research has found that this group of offenders is more likely to experience more ACEs and present early-onset problem and offending behaviors (Barrett & Katsiyannis, 2016). Also, because of this association and the presumed relationship between negative parental influences and criminal thinking, it is plausible that early-onset offenders could have a relationship with criminal thinking as well.

- Hypothesis 1: There will be a relationship between negative parental influences and juvenile problem and offending behaviors.
- Hypothesis 2: There will be a significant relationship between the number of negative parental influences experienced and early-onset juvenile offenders.
- Hypothesis 3: There will be a relationship between criminal thinking and juvenile problem and offending behaviors.
- Hypothesis 4: There will be a significant relationship between criminal thinking scores and early-onset juvenile offenders.

Finally, the last two hypotheses relate to the relationship between criminal thinking and negative parental influences. Some studies have shown that negative parental influences can impact cognitive functioning, which largely contributes to criminal thinking (Schroeder et al., 2010; Toth & Cichetti, 2013; Walters, 2015). Findings in the study by Cuadra and colleagues (2014) is the basis for the final hypothesis and the research question for the current study. They found that criminal thinking mediated the relationship between child maltreatment and adult offending (Cuadra et al., 2014), so there is evidence that criminal thinking is a mediating factor between at least one type of negative parental influence and offending behaviors.

- Hypothesis 5: There will be a relationship between the number of negative parental influences and criminal thinking.
- Hypothesis 6: Criminal thinking will account for a significant portion of the relationship between negative parental influence and juvenile offending.

Chapter Summary

The purpose of this chapter was to explain the importance of research on juvenile offending specifically aimed at better understanding the causal factors, and to propose the need for research to further consider the dynamic effects of criminal thinking and negative parental influences on serious, chronic juvenile offending. Discussion about how this consideration of criminal thinking and negative parental influences was included, which outlined the benefits to prevention programs, risk/need assessments, intervention and treatment programs, and an overall reduction in recidivism and continued involvement in criminal behaviors. Chapter two will expand on the literature covering the relationships between negative parental influences, criminal thinking, and juvenile problem and offending behaviors. Chapter three will explain the methodology used to carry out the current study, including the source of data, how variables are measured, and the statistical tests used. In chapter four, the results of the analyses are revealed, and chapter five will discuss the implications of the findings.

Chapter 2. Literature Review

The current study explored the relationship between negative parental influences, criminal thinking, and juvenile offending. A review of the existing literature on each of the three concepts is necessary in order to understand the influences of each variable, as well as to establish their relationship to one another. Only after fully understanding these concepts and their relationships is it possible to locate the gaps and limitations in the existing research and outline how the current study intends to fill those gaps.

Negative Parental Influence and Offending

As explained in the previous chapter, the concept of negative parental influences is based on the 10 measures in the original adverse childhood experiences (ACEs) study. For the sake of clarity, "parenting/parental" behaviors and influences refer to the influences of the people/person in the role of a parent for the child, which could either be a parent or other caregiver. Research has considered each of the negative parental influences separately and found that each of them have an impact on problem and offending behaviors.

Parenting Styles

Different parenting styles include certain parental characteristics that can impact a child's behavior in distinctive ways. The three main styles of parenting are authoritarian, permissive, and authoritative (Chipman et al., 2000). The characteristics of authoritative parenting are high warmth, reasoning, and consistent and fair control and monitoring, and this style of parenting is consistently associated with positive outcomes for children, including average or advanced social, behavioral, psychological, and cognitive development and functioning (Chipman et al., 2000; Haapasalo, 2001; Williams & Steinberg, 2011). Authoritarian parenting characteristics include hostility, coercion, power-oriented control, harsh discipline or abuse, and low warmth,

whereas permissive parenting is characterized by little to no monitoring or control, low involvement, low or inconsistent family structure, neglect, and rejection (Chipman et al., 2000; Haapasalo, 2001). Children who experience either authoritarian or permissive parenting styles are found to have high rates of substance use, aggressive behavior, low self- and emotional-control, diminished cognitive and social functioning, and an overall increase in juvenile problem and offending behaviors (Chipman et al., 2000; Haapasalo, 2001; Williams & Steinberg, 2011).

Parenting styles have an evident impact on offending behavior because there are consistent findings of low authoritative style characteristics among offenders (Haapasalo, 2001; Williams & Steinberg, 2011), while non-offenders are significantly more likely to experience authoritative style parenting (Chipman et al., 2000). Relatedly, delinquents and offenders are consistently found to be significantly more likely to experience characteristics of authoritarian and permissive parenting styles, especially neglect and abuse, low warmth, low monitoring, hostility, and rejection (Chipman et al., 2000; Haapasalo, 2001; Hoeve et al., 2009; Palmer & Gough, 2007; Williams & Steinberg, 2011). The effects of parenting styles on offending behavior may be direct or indirect, but the influence is undeniable.

Unnever and colleagues (2006) offered theoretical support that explained how ineffective parenting can lead to juvenile problem and offending behaviors. While testing two popular theories of criminal behavior, the general theory of crime and social learning theory, characteristics of authoritarian parenting (coercive and inconsistent discipline) and permissive parenting (low monitoring and involvement) were found to be independently and significantly related to juvenile delinquency, and this relationship was both direct and mediated by low self-control and aggressive attitudes (Unnever et al., 2006). This supports the idea that ineffective parenting does have a direct influence on offending behavior, but the relationship can be indirect

through the child's level of self-control and their attitudes shaped by parenting. Low self-control and aggressive attitudes were found to have strong independent and interactive effects on delinquency, which supported the two theories of criminal behavior (Unnever et al., 2006). Impulsivity and antisocial cognition are two of the most important risk factors for criminal behavior (Andrews & Bonta, 2010; Looman & Abracen, 2013). Researchers need to understand the pathways and relationships involved in ineffective or negative influences of parenting since ineffective parenting influences some of the most important criminal risk factors.

Parental Separation

Studies have shown a moderate but consistent impact of parental separation or divorce on juvenile offending and problem behaviors (Amato, 2001; Amato & Keith, 1991; Burt et al., 2008; Price & Kunz, 2003; Videon, 2002) as well as a strong impact on continued and adult offending behaviors (Rhoades et al., 2016; Whitten et al., 2019). Research has explored the possible reasons for this relationship. Agnew's (1992) general strain theory offers a theoretical explanation since the child may cope with, relieve, or avoid the strain and associated emotions through problem or offending behaviors. Also, Burt and colleagues (2008) showed that the experience of parental divorce was significantly related to delinquency for biological and adopted children. This finding upheld the belief that the influence of parental separation and divorce on delinquency is a product of environmental, not genetic, factors (Burt et al., 2008).

Within the environment, the effects of parenting through the entire process of the separation are an important factor related to juvenile offending outcomes. Hetherington and colleagues (1998) said that the effectiveness of parenting may be diminished immediately before, during, and for some time after the divorce. Parents going through a separation are typically in distress and/or experience disruptions that limit their ability to function or to support and

supervise their children how they should or normally would, which negatively impacts the child's ability to adjust (Hetherington et al., 1998). The family relations before the separation can also exacerbate the effects on juvenile offending. Videon (2002) found that parent-child relations before the separation affected juvenile delinquency. Juvenile offending behaviors increased when the child was separated from a same-sex parent with whom they had a positive relationship, but offending behaviors were decreased when they were separated from a same-sex parent with whom they had a negative relationship with (Videon, 2002). The impact of separation from an opposite-sex parent on juvenile offending was not significant, regardless of the nature of the parent-child relationship (Videon, 2002). These finding may partially explain why the effect of parental separation on juvenile offending is typically moderate.

Negative family relations have been found to explain the effects of parental separation on offending behaviors. Theobald and colleagues (2013) found that harsh parental discipline was a strong moderating variable between parental separation and violent offending. The moderating effect of harsh discipline was so strong that individuals who experienced parental separation but not harsh discipline had the same percentage of violent offending as individuals who did not experience parental separation (13% and 12.9% respectively), whereas individuals who experienced both parental separation and harsh discipline had a much higher percentage of violent offending (Theobald et al., 2013). This is evidence that negative parental influences may also have combined effects that need to be considered.

Parental separation and divorce have a consistent impact on offending and problem behaviors, but the effect is typically moderate, likely due to the complexities of the other factors involved. Family relationships, parenting styles, and conflict among parents are some of the factors that, if present, can worsen the child's adjustment and result in increased problem and

offending behaviors (Amato & Keith. 1991; Hetherington et al., 1998; Theobald et al., 2013; Videon, 2002). With so much variability and the current divorce rate in the U.S. at 2.9 per 1,000 people (Center for Disease Control and Prevention, n.d.), there is a chance for a significant number of maladjusted juvenile offenders. This potential for an increase in juvenile offending is important since parental separation has been shown to be a strong risk factor for persistent offending (Whitten et al., 2019). It is important to understand more about how parental separation and divorce impacts juvenile offending behaviors so that researchers can be better informed on which factors are predictive of offending, which would also allow for the development of more effective intervention programs.

Parental Discord

Verbal or physical fighting among parents can create a stressful or traumatic environment for a child. The impactful role of parental conflict on offending behavior among children of separated parents is evident. Hawkins and colleagues (1998) reported that parental discord has been consistently linked with violent behaviors and offending among juveniles and adults. Amato and Keith (1991) found that offending behavior of children with high-conflict and non-separated parents was similar to the offending behavior of children of separated parents; children of low-conflict and non-separated parents had significantly less problem and offending behaviors. Mowen and Boman (2018) found that family conflict is one of the most important factors impacting juvenile offending behaviors. As previously mentioned, children's behaviors, thinking, and coping skills are typically negatively affected by prolonged exposure to stress, which can lead to aggression and poor decision making. These same effects have been found among children who experience family conflict, and Mowen and Boman (2018) linked family conflict with offending behaviors and involvement with factors closely related to risk for

offending, including having anti-social associates and substance abuse (Looman & Abracen, 2013).

There are many reasons as to why parental discord has an impact on problem and offending behaviors. Antisocial coping mechanisms are common among children who experience family conflict (Mowen & Boman, 2018), so a child's attempts to cope with, avoid, or relieve the strain would likely be through problem or offending behaviors (Agnew, 1992). Children may also learn that the violent and aggressive behaviors the parents engage in are permitted and effective ways to interact and communicate, which increases the likelihood that they will imitate these behaviors (Bandura et al., 1961; Sutherland, 1947)

Parental Warmth

Low parental warmth has continually been shown to have a strong relationship with initial and continued problem and offending behaviors (Grady et al., 2017; Grusec & Davidov, 2010; Hawkins et al., 1998; Palmer & Gough, 2007; Schroeder et al., 2010; Williams & Steinberg, 2011). Some of the characterizing behaviors of parents low in warmth are reflective of permissive parenting styles due to the low level of involvement and responsiveness of the parent (Chipman et al., 2000; Haapasalo, 2001). Parental warmth, or the quality of the parent-child relationship, has an impact on a child's emotional, social, and cognitive development as well as on behavior (Grady et al., 2017). Emotional, social, and cognitive functioning is shaped through the involvement of the parent, including responsiveness and protection, or comfort, because these characteristics foster monitoring, control, and emotional guidance through the developmental process (Grady et al., 2017; Grusec & Davidov, 2010). Proper socialization and adjustment outcomes have been linked with components of parental warmth, including parental responsiveness and overall involvement (Grady et al., 2017; Grusec & Davidov, 2010; Schroeder

et al., 2010). This link makes sense because a parent is the child's primary source for learning how to interact in social environments and how to acceptably react to stimuli and situations. If the parent is not sensitive to the child's needs, the child's understanding of appropriate social interaction may reflect that. Children who experience low parental warmth are found to have increased aggression, low emotional and self-control, diminished cognitive and social functioning, and an overall increase in juvenile problem and offending behaviors (Chipman et al., 2000; Haapasalo, 2001; Williams & Steinberg, 2011).

Attachment theory focuses on the degree to which a child can rely on the parent to respond to its distress and provide support and protection (Grady et al., 2017; Grusec & Davidov, 2010). The child's response to distress are formed according to the behaviors and tendencies of the parent's responses to the child (Grady et al., 2017). High involvement indicates high parental warmth and serves to comfort and guide the child in regulating their negative emotions, whereas low parental warmth is characterized by unresponsiveness or low involvement in the child's distress resulting in the child not receiving comfort or guidance on emotion regulation (Grady et al., 2017; Grusec & Davidov, 2010). Parenting low in warmth has been shown to be related to negative emotionality and offending, namely through the underdevelopment of emotional regulation and empathy (Grady et al., 2017; Grusec & Davidov, 2010; Schaffer et al., 2009; Schroeder et al., 2010; Williams & Steinberg, 2011). Grady and colleagues (2017) explained that an insecure attachment style, including neglectful and inconsistent parenting, is strongly associated with maladaptive coping, aggression, cognitive functioning, emotional difficulties, empathy deficits, and delinquency.

Negative emotionality and low empathy have been strongly associated with initial and continued offending behaviors (Baglivio et al., 2016; Baglivio et al., 2017; Grady et al., 2017;

Grusec & Davidov, 2010; Jolliffe & Farrington, 2007; Schaffer et al., 2009; Schroeder et al., 2010; Wolff & Baglivio, 2017). It has also been shown that offenders and juveniles with problem behaviors have more negative emotionality and lower empathy than that of non-offenders and juveniles without problem behaviors (Jolliffe & Farrington, 2007; van Langen et al., 2014; Williams & Steinberg, 2011). Empathy is related to offending behaviors because an inability to understand or share another person's emotions or experiences makes it easier for the offender to cause harm or to justify and rationalize the offending behavior (van Langen et al., 2014). This shows that criminal thinking is highly involved in the major pathway of the impact of low parental warmth on offending behavior.

Parental Hostility

Physical abuse and neglect, emotional abuse and neglect, and rejection are all considered aspects of parental hostility (Haapasalo, 2001). Unsurprisingly, parental hostility can negatively affect a child in various ways, including the development of problem and offending behaviors. Williams and Steinberg (2011) found that high parental hostility was a significant predictor of juvenile problem behaviors and delinquency. Experiencing high levels of parental hostility has been found to have a more significant effect on offending behavior than experiencing low levels of parental warmth (Hoeve et al., 2009). This finding could mean that the effects of high parental hostility are more detrimental than the effects of low parental warmth; or it could be that the effects of parental hostility are more dynamic and have an impact on more developmental functions than low parental warmth does.

As previously discussed, the primary pathway from low parental warmth and offending behavior is through the breakdown in the development of empathy and emotionality. The pathway to offending behavior from parental hostility is not as straightforward. Childhood abuse

and neglect have been linked with many negative outcomes. Offender populations have extremely high rates of child abuse and neglect, typically higher than that of non-offenders (Baglivio et al., 2014; Cuadra et al., 2014). Physical and emotional abuse and emotional neglect are among the most consistently reported traumas for offenders, with the prevalence ranging from 26% to 53% (Cuadra et al., 2014; Debowska & Bonduszek, 2017; Levenson et al., 2016; Puszkiewicz & Stinson, 2019). These traumas have also been linked with an increase in violent and delinquent behavior among juveniles (Duke et al., 2010). Significantly higher rates of physical and emotional abuse have been found among early onset and SVC offenders (Fagan, 2005; Fox et al., 2015), which indicates that this type of trauma not only impacts offending behavior, but it contributes to the development of the most prolific and destructive types of offenders.

Rejection is the other component of parental hostility and is typically understood through the measure of support. As a negative aspect of support, rejection includes either real or perceived lack of parental support, affection, care, approval and acceptance of the child as well as indifferent or inconsistent parenting (Berenson et al., 2005; Khaleque, 2017; Ramirez-Ucles et al., 2018). Many studies report on the protective aspect of high parental support (Berenson et al., 2005; Johnson et al., 2011; Vidal & Woodlard, 2017), which makes it plausible that the absence of parental support would lead to antisocial and offending behaviors. Barnow and colleagues (2002) found a direct link between rejection and aggressive and delinquent behavior, and Ryan and colleague's (2013) study revealed that a lack of parental support was significantly related to juvenile recidivism.

One theoretical explanation for offending behavior and abuse and neglect to have such a strong relationship is the cycle of violence, which posits that, either through social learning or as

a way of coping with their trauma, victims of abuse and neglect are more likely to engage in antisocial, violent, and/or illegal behaviors (Fagan, 2005; Widom, 1989). While not all victims of abuse and neglect are offenders, the offenders who are victims of this trauma have been found to be significantly more likely to engage in and continue offending and violent behaviors (Cuadra et al., 2014; Debowska & Boduszek, 2017; Duke et al., 2010) and to be more prolific offenders (Fagan, 2005; Widom, 1989), which supports this theoretical explanation. The cycle of violence may be continued due to the developmental deficits caused by prolonged exposure to stress, maladaptive reactions to strain, or even a continuation of learned behavior.

Parent Substance Use

Research concerning substance use and offending has largely focused on the drug use of the individual as a risk factor for offending. Looking at the effects of other's drug use on offending has revealed that about half of offenders report experiencing household substance use (Levenson et al., 2016), but SVC juvenile offenders report it at almost double the rate of one-time juvenile offenders (Fox et al., 2015). Wills and colleagues (2001) reported that parental substance use was related to child substance use, and Puszkiewicz and Stinson (2019) found that caregiver substance use was significantly related to early arrest, which is a risk factor for SVC offending (Barrett & Katsiyannis, 2016; Livingston et al., 2008). In an attempt to explain this relationship, Baglivio and colleagues (2017) discovered that parental substance abuse was significantly related to increased recidivism rates for juvenile offenders, but that the relationship was explained through deficits in self-control of the juvenile. Irregular and non-responsive parenting would not be uncommon among parents who are abusing substances, so it is feasible that children whose parents abuse substances form an insecure attachment style and maladaptive

coping strategies that include problem and offending behaviors (Baglivio et al., 2017; Grady et al., 2017).

Parent Mental Illness

A lot of the research on parental mental illness examines its effect on the child's behavior, but not necessarily as it directly relates to offending behavior. Maternal depression has been found to be significantly related to emotional regulation and aggressive, negative, and externalizing behaviors (Forbes et al., 2006; Goodman et al., 2011). Goodman and colleagues (2011) explained that this effect may be due to inconsistent parenting. According to attachment theory, inconsistent parenting can lead to insecure attachments, which have been linked with developmental deficits and offending behaviors (Grady et al., 2017; Grusec & Davidov, 2010; Schroeder et al., 2010). It can be concluded that maternal depression has at least an indirect effect on juvenile offending behavior through increased aggression, emotional regulation, and externalizing behaviors. Baglivio and colleagues (2017) also found an indirect effect of parental mental health on juvenile recidivism rates through low self-control. Children who experience mentally ill parents may have insecure attachments through which they develop maladaptive coping behaviors, aggression, and emotional regulation and empathy difficulties. These functioning deficits along with low self-control increases the chances of a juvenile engaging in problem and offending behaviors (Baglivio et al., 2016; Baglivio et al., 2017; Grusec & Davidov, 2010; Gottfredson & Hirschi, 1990; Jolliffe & Farrington, 2007; Schaffer et al., 2009; Schroeder et al., 2010).

Parent mental illness has been found to be significantly related to other ACEs, including parental substance abuse and parental incarceration (Puszkiewicz & Stinson, 2019), which suggests that the impact of this negative parental influence may be partially explained by the

cumulative effect that ACEs have on offending behaviors (Baglivio et al., 2014; Duke et al., 2010; Fox et al., 2015). Mental health problems, such as depression and anxiety, in parents have been shown to be a mediating factor between financial strain and juvenile offending (Reynolds & Crea, 2016), again linking parent mental illness with concepts related to risks for offending. Pertaining directly to offending behavior, Fox and colleagues (2015) reported that household mental illness was experienced at almost double the rate for SVC offenders when compared to one-time offenders, and Miller and colleagues (2011) found that parent mental illness significantly increased the risk for future engagement in physical dating violence.

Parental Incarceration

The removal of a parent from the family life causes stress among the family members as the roles and functioning of the family must change when it happens. The remaining parent may have to get another job or work more hours to support the family, which may result in children having more unsupervised time. Parental incarceration has been directly linked with juvenile problem and offending behaviors (Aaron & Dallaire, 2010; Kjellstrand et al., 2020; Kjellstrand & Eddy, 2011; Muftic & Smith, 2018; Murray et al., 2012; Ruhland et al., 2020; Whitten et al., 2019). Studies have also linked experiencing parental incarceration with characteristics of SVC offenders. Negative effects of parental incarceration are greatest on younger children (Turney, 2018), juveniles who have experienced parental incarceration have been significantly overrepresented in groups with offending and behavior patterns similar to that of SVC offenders (Kjellstrand et al., 2020), and the most common risk factor experienced by persistent-chronic offenders was having an incarcerated parent (Whitten et al., 2019).

Having someone in the home incarcerated has been among the most prevalent ACEs reported (Fox et al., 2015) and Turney (2018) found that experiencing parental incarceration was

strongly associated with experiencing any other ACE. Specifically, children who reported having incarcerated parents were nine times more likely to report abuse, eight times more likely to report household substance abuse, and four times more likely to report experiencing parental separation or divorce (Turney, 2018). All of these experiences have been shown to increase the likelihood of offending behaviors, but there is also a cumulative effect of ACEs, meaning more ACEs reported is strongly correlated with worse behavioral outcomes (Duke et al., 2010; Fox et al., 2015). Since experiencing parental incarceration is associated with an increased exposure to other ACEs that suggests that this negative parental influence has a dynamic effect on juvenile offending behaviors.

Inconsistent and harsh parenting styles have been found to be associated with parental incarceration (Kjellstrand & Eddy, 2011; Kjellstrand et al., 2020), which highlights the role that parenting may serve in explaining the association between parental incarceration and juvenile offending behaviors. As previously discussed, authoritarian and permissive parenting styles have been strongly associated with juvenile problem and offending behaviors, and this relationship has been at accounted for through low parental involvement and harsh and inconsistent discipline (Unnever et al., 2006). Children experiencing parental incarceration may have the remaining parent engaging in ineffective parenting styles in response to the situation. The parent may be minimally involved due to work, or they may discipline too harshly and inconsistently as a way of coping with the strain. These parenting behaviors in response to the situation have an effect on juvenile offending behaviors and may partially explain how parental incarceration is likely to lead to juvenile problem and offending behaviors.

Parental Monitoring

Criminal behavior and low parental monitoring have continuously been linked in research (Flanagan et al., 2019; Hoeve et al., 2009; Stewart et al., 2018; Unnever et al., 2006; Williams & Steinberg, 2011), particularly through the development of low self-control in the juvenile (Gottfredson & Hirschi, 1990; Pratt & Cullen, 2000). To begin, low parental monitoring consists of absent or inconsistent awareness and correction of a child's problem and offending behaviors (Flanagan et al., 2019; Gottfredson & Hirschi, 1990; Hoeve et al., 2009; Unnever et al., 2006). If nothing else, the lack of supervision may lead to an increased risk of problem and offending behavior because the juvenile has more opportunity. Regularly unsupervised juveniles have more opportunity to continually engage in these behaviors. This pathway may be supported by findings that persistent-chronic and life course persistent offenders are characterized and predicted by poor parental supervision (Farrington, 2020; Whitten et al., 2019). These types of offenders are likely to begin their problem and offending behaviors at a young age (Baglivio et al., 2014; Fox et al., 2015), and if they are also highly likely to experience poor parental monitoring then it could explain how they had increased opportunity to begin and continue engaging in those types of antisocial behaviors.

Low self-control in juveniles is commonly linked with problem and offending behaviors and is cited as one of the best predictors for criminal behavior (Andrews & Bonta, 2010; Pratt & Cullen, 2000; Unnever et al., 2006). Gottfredson and Hirschi's (1990) theory on the development of low self-control focused on the lack of parental monitoring and subsequent correction of the child's behavior. Walters (2015) found support for this pathway from low parental monitoring to the development of low self-control. Therefore, the existing literature suggests that parental monitoring is an important predictor of low self-control and problem and offending behaviors.

Criminal Thinking and Offending

Antisocial cognitions have been recognized as one of the most important risk factors for criminal behavior (Andrews & Bonta, 2010; Looman & Abracen, 2013). This could include pro-criminal thoughts and opinions that justify or minimize the harms done as a result of offending behaviors, increasing the likelihood or making it easier for the person to engage in these behaviors. Walters identified two dimensions of pro-criminal cognitions, or criminal thinking. Eight elements of thinking make up these two dimensions of criminal thinking style, reactive and proactive criminal thinking (Walters, 1995). The differentiation in the thinking style is important because it can determine the nature of the cognitions and which behaviors the cognitions correlate best with (Walters,1995) which is important when treatment is being implemented.

Proactive criminal thinking (PCT) represents the aspects of criminal cognition that are purposive, rational, and calculated, whereas reactive criminal thinking (RCT) reflects aspects of criminal cognition that are impulsive, emotional, and reckless (Cuadra et al., 2014; Walters, 2011; 2018). These thinking styles differ in how they are developed and how they function (Walters, 2018), so they are found to impact problem and offending behaviors differently. PCT has been found to be a mediating factor between having antisocial peers and offending (Walters, 2016a), whereas RCT has been shown to be a mediating factor between initial and continued offending (Walters, 2016b). Guilt has been found to have an important impact on and a reciprocal relationship with PCT (Walters, 2020b), which makes sense considering that PCT is calculated and rational. More guilt would inhibit neutralization techniques, which would make it harder for the individual to deny the harms or shift the blame, resulting in less PCT and criminal behaviors (Walters, 2020b). RCT is strongly associated with factors such as low self-control and impulsivity, which are strong predictors for problem and offending behaviors (Pratt & Cullen,

2000; Unnever et al., 2006). Diminished ability to delay gratification and substance use have both been strongly connected with RCT (Cuadra et al., 2014; Varghese et al., 2014; Walters, 2011).

General criminal thinking is the combination of PCT and RCT and has been found to be strongly associated with many problem and offending behaviors. It has been found to be a significant predictor for delinquency and general offending (Walters, 2020a) as well as general and serious recidivism (Walters, 2011; 2012; Walters & Lowenkamp, 2016) and has been found to predict recidivism similarly across age, gender, race, and education level (Folk et al., 2018). In relation to serious offending, Walters (1995) reported that maximum-security inmates had a higher criminal thinking score than medium- and minimum-security inmates. Also, Walters and DeLisi (2013) found that criminal thinking was a mediating factor between juvenile offending and continued criminal offending into adulthood. This link is important because a history of criminal behavior is arguably the best predictor of future offending (Andrews & Bonta, 2010; Looman & Abracen, 2013). Criminal thinking as a pathway from initial offending to continued offending suggests that SVC offenders may have increased criminal thinking.

Parenting and Criminal Thinking

The relationship between parenting and criminal thinking has not been thoroughly explored. Connections can be made by linking findings from studies together and making inferences. For instance, low self-control is found to be strongly connected to offending (Pratt & Cullen, 2000; Unnever et al., 2006), low parental monitoring and low parental warmth have been shown to develop low self-control in children (Chipman et al., 2000; Walters, 2015; Williams & Steinberg, 2011), and low self-control has been found to develop RCT (Walters, 2015; 2017). Another example is that Walters (2019) found that the relationship between PCT and serious

offending was mediated by the perceived parental acceptance of criminal behavior. It could be inferred that this connection shows how negative parental influences, such as parental hostility and discord, could impact the offending behaviors of juveniles through modeling violence and aggression, suggesting the parents accept those kinds of behaviors. Also, the developmental pathway from negative parental influences to offending behaviors often involves deficits in cognitive functioning (Fox et al., 2015; Levenson et al., 2016; Toth & Cicchetti, 2013) which inherently links negative parental influences with criminal thinking. This is especially true when the diminished cognition from experiencing negative parental influences can include maladaptive coping skills, deficits in decision-making capabilities (Fox et al., 2015; Levenson et al., 2016; Toth & Cicchetti, 2013), and low levels of emotionality and empathy (Jolliffe & Farrington, 2007; van Langen et al., 2014; Williams & Steinberg, 2011). All of these consequences are related to criminal thinking styles in that they allow the offender to justify or rationalize the behavior, minimize or deny the harm done, or make the behavior highly likely because of the lack of self-control or the inability to decide to react in a pro-social way (Cuadra et al., 2014; Walters, 1995; 2011; 2018).

In a direct assessment of the effects of parenting on criminal thinking, Rose and colleagues (2014) found that parenting does affect general criminal thinking. Specifically, they reported that parenting behaviors that are controlling were positively and significantly related to mollification (Rose et al., 2014). It was thought that this relationship may exist because controlling and over-involved parenting may not allow the child to develop any sense of responsibility, which explains the tendency to justify and rationalize the behavior, blame others, or deny and minimize the harm done; anything to not take responsibility for the action (Cuadra et al., 2014; Walters, 2011). They also concluded that high parental warmth was significantly

related to low scores on the thinking scales entitlement and cutoff, possibly because of the proper development of emotional regulation and decision-making that high parental warmth offers (Rose et al., 2014). This suggests that low parental warmth may increase these scores.

Cuadra and colleagues (2014) also looked at the relationship between parenting and criminal thinking. Their focus was similar to that of the current study, except they focused on criminal thinking as a mediating factor between child maltreatment and adult criminal behavior (Cuadra et al., 2014). This is the only study thus far to look at criminal thinking as a mediating factor between a specific parental influence and offending. It was found that all three measures of criminal thinking—general, proactive, and reactive—mediated the relationship between child maltreatment and adult offending (Cuadra et al., 2014). Offenders in their sample who had experienced maltreatment had higher PCT and RCT scores, and the criminal thinking fully accounted for the relationship between this experience and their offending behavior (Cuadra et al., 2014). This study shows strong support for the possibility that criminal thinking is a mediating factor between any type of negative parental influence and offending behavior, which relates directly to the current study.

Current Study

It is evident that adverse childhood experiences do have an effect on initial and continued problem and offending behaviors. Also, research supports the connection between criminal thinking and problem and offending behaviors. Where the research is severely lacking is examining the impact of those adverse childhood experiences when they are committed by parents/caregivers alone and the connection between these negative parental influences and criminal thinking in relation to juvenile problem and offending behaviors. Hoeve and colleagues (2009) identified family factors and parenting effects as one of the best predictors of recidivism.

This points to a need to look at the impact of negative parental influences on juvenile problem and offending behaviors. Further, there are only a few studies that look at the connection between parenting behaviors and criminal thinking. Understanding the nature of the link between negative parental influences and criminal thinking as a pathway to juvenile offending would be beneficial in developing prevention and treatment programs by identifying the specific factors in the pathway towards offending.

Since it has been shown that parenting behaviors have an impact on some of the most influential risk factors for criminal behavior, it is imperative that the impacts of parenting behaviors be fully understood. The current study adds to the literature by establishing a relationship between negative parental influences and juvenile problem and offending behaviors, confirming a relationship between criminal thinking and juvenile problem and offending behaviors, and exploring a specific pathway from negative parental influences to juvenile problem and offending behaviors through criminal thinking. No previous study has focused specifically on the influence of parents in the ACE factors and looked at the effects on offending behavior. This study looked at the effects of parenting behaviors specifically because of the unique position of influence that a parent/ caregiver has on a child. Further, no research exists that has looked at the relationship between the negative parental influences in this study and their relationship to criminal thinking. Finally, there has been no single study that has considered the relationship between negative parental influences, criminal thinking, and juvenile problem and offending behaviors. Those are the shortcomings of the literature that this study filled.

Chapter Summary

This chapter outlined how offending behaviors can be influenced by parental influences and through criminal thinking. Research shows significant impacts on problem and offending

behaviors when children experience negative parental influences, such as separation, hostility, and low warmth (Burt et al., 2008; Grady et al., 2017; Grusec & Davidov, 2010; Hoeve et al., 2009; Whitten et al., 2019; Williams & Steinberg, 2011). Proactive, reactive, and general criminal thinking have all been shown to have significant impacts on initial and continued problem and offending behaviors (Folk et al., 2018; Varghese et al., 2014; Walters, 2015; 2016b; 2018; 2020a; Walters & DeLisi, 2013; Walters & Lowenkamp, 2016). Minimal research has explored the connection between parenting and criminal thinking, but the few that have, reported links between the two concepts (Cuadra et al., 2014; Rose et al., 2014; Walters, 2015). Research on the developmental pathways from adverse childhood experiences to offending include the impairment of cognitive development and functioning, which further supports the connection between negative parental influences and criminal thinking (Agnew, 1992; Burgess & Akers, 1966; Fox et al., 2015; Levenson et al., 2016; Sutherland, 1947; Toth & Cicchetti, 2013; Walters, 2015).

None of the existing literature has looked at the factors of ACEs by only considering the impacts of parental influence. The current study intends to fill that gap by looking at the negative parental influences of separation, discord, warmth, hostility, substance use, mental illness, incarceration, and monitoring. Further, this study will explore the impact of these negative parental influences on criminal thinking and determine whether criminal thinking mediates the relationship between negative parental influences and juvenile problem and offending behaviors. Looking at these concepts will provide a cohesive study of several negative parental influences, which is beneficial given that juvenile and SVC offenders are likely to have experiences several types of adversities (Baglivio et al., 2014; Fox et al., 2015; Levenson et al., 2016; Wolff et al., 2017). Also, this study will enhance the understanding of pathways to initial and continued

offending through childhood experiences, which can enhance the effectiveness of prevention and treatment for juveniles who experience negative parental influences. The methodology used in the current study will be discussed in the next chapter, focusing on the data source, variables, and method of analysis.

Chapter 3. Methodology

The current study was focused on answering the research question of whether criminal thinking mediates the relationship between negative parental influences and juvenile problem and offending behaviors. This question was answered through the analysis of six hypotheses. In this chapter, the methodology used to analyze these hypotheses and answer the research question will be discussed. First, the sample used in the study will be examined. Then the independent and dependent variables will be explained, followed by a discussion about the plans for data analysis.

Sample

This study used data from the Pathways to Desistence study. The data were self-report, collected via survey in Maricopa County, AZ and Philadelphia County, PA from 2000 to 2010, and included a purposive sample of 1,354 juvenile offenders aging from 14 to 19 years of age (Mulvey, 2016). Baseline interviews were conducted within three months of the juveniles' court hearing (either the adjudication hearing or, if the juvenile was in the adult system, the arraignment or decertification hearing) and follow-up interviews were conducted in six month intervals until the 84 month follow up was completed (Mulvey, 2016). Six major domains were covered in the baseline and in each wave of data collection: (1) background characteristics (e.g., demographics, living arrangements, offense history), (2) indicators of individual functioning (e.g., substance abuse, school/work performance, mental disorders), (3) psychosocial development and attitudes (e.g., impulse control, moral disengagement, perceptions of opportunity), (4) family context (e.g., family relationships, household composition), (5) personal relationships (e.g., contacts with caring adults, peer delinquency), and (6) community context (e.g., personal capital, community involvement, neighborhood conditions; Mulvey, 2016).

To date, there have been over 400 publications using this dataset that cover an array of correlating, causal, and consequential factors of juvenile problem and offending behaviors and desistence (e.g., Ashton et al., 2020; Augustyn et al., 2019; Jang, 2018; Piquero, 2017; Walters, 2016a). The current study focused on a potential pathway to juvenile problem and offending behaviors. Only the data gathered at the baseline interviews were used in the current study because this initial wave included the most questions and because it was the closest to the time of offending, which could protect against recall bias. Of the 913 variables included in the Pathways to Desistence study, only 57 variables were used for the current study, which includes demographic information, negative parental influences, criminal thinking, and juvenile problem and offending behaviors.

Variables

The current study looked at three dependent variables, one of which (criminal thinking) is a mediating variable. Each of these variables were measured in relation to the independent variable to uncover any relationships that might exist. The following two sections explain how each variable was measured in the original data set and how they were measured in the current study. Appendix A provides a table with each variable and a description of how it was measured.

Dependent Variables

Juvenile problem and offending behaviors were measured as 0=no and 1=yes or on a numerical scale by combining several questions about whether the participants had engaged in various problem and offending behaviors. The problem behaviors were all measured as 0=no and 1=yes and included whether the juvenile had ever run away, been suspended, been expelled, and engaged in substance abuse. Offending behaviors were also all measured as 0 if the juvenile had never engaged in the behavior and 1 if they had ever engaged in it. This measure included 18

different offending behaviors, 11 of which are non-violent (e.g., joyriding, sold drugs, damaged property, driving while high/drunk) and seven are violent (e.g., shot someone, carjacked, took something by force). Juvenile problem and offending behaviors were measured as a total of the problem and offending behaviors that they indicate they have ever engaged in for a score out of 22.

Early onset offending was measured with one item, age of first offense, which is interval/ratio level data. The item was recoded as no/yes to indicate whether the juvenile was considered early onset. Juveniles that reported their age of first offense as 13 or younger were coded as early onset (1=yes) and 14 and older were recoded as not early onset (0=no). These ages were selected because research has identified juvenile offenders under the age of 14 to be most likely at high risk to be chronic offenders (Livingston et al., 2008).

Criminal thinking was measured using two items. Each of the items were used in the current study because a previous study, using this exact dataset, by a prominent researcher on criminal thinking (Walters, 2016a) also used these items to measure proactive and reactive criminal thinking. Proactive criminal thinking (PCT) was measured using the Mechanisms of Moral Disengagement proposed by Bandura and colleagues (1996), which is a 32-item scale that measures overall moral disengagement concerning the treatment of others. Participants responded to statements such as "someone who is obnoxious does not deserve to be treated like a human being," "kids cannot be blamed for using bad words when all their friends do it," and "if people are careless where they leave their things it is their own fault if they get stolen" (Bandura et al., 1996, p. 374). These statements accurately represent styles of PCT which serve to shift blame off of themselves, justify or rationalize the antisocial behaviors, and neutralize or deny the harm done (Walters, 2011; 2016a). Responses were scored on a three-point scale (1=disagree to

3=agree) and the score for each participant was reported as the average of these responses, with a higher score representing more moral disengagement (higher PCT). Walters (2016a) reported excellent internal consistency of this score (α= .90). These scores were recoded into z-scores so that they could be averaged with the reactive criminal thinking score in order to form the general criminal thinking score.

The other measure of criminal thinking, reactive criminal thinking (RCT), was measured using the eight-item impulse control scale of the 84-item Weinberger Adjustment Inventory (Weinberger & Schwartz, 1990), which measures social-emotional adjustment by asking how true certain statements are about the respondent (1=false, 2=somewhat false, 3=not sure, 4=somewhat true, and 5=true). Statements in this scale included "I say the first thing that comes into my mind without thinking enough about it" and "I am the kind of person who will try anything once, even if it's not that safe" (Walters, 2016a, p. 1060). This scale was an appropriate proxy measure for the styles of RCT because of its ability to capture impulsivity and poor thought processing (Walters, 2011; 2016b). The average of the responses from the five-point scale (1=false to 5=true) were reported as the score for each participant, with a higher score representing more impulse control (lower RCT). Walters (2016a) concluded that this score had adequate internal consistency (α= .76). Since this score was interpreted opposite of the PCT score, the averages for RCT were inverted (multiplied by -1) so that they could be more easily interpreted upon analysis. After this, the RCT scores were also recoded into z-scores so that they could be averaged with the PCT scores to for the general criminal thinking score.

Independent Variable

Negative parental influences were measured as a sum of eight dimensions:

1. Parental discord

2. Parental substance use
3. Parental incarceration
4. Parental mental illness
5. Parental separation
6. Parental warmth
7. Parental hostility
8. Parental monitoring

All of the dimensions required some type of recoding in order to measure negative parental influence as yes/no. This variable was measured in this way because it allowed for the score to represent a count of the negative parental influences experienced by each participant. For example, if a participant reported experiencing two of the eight dimensions then their score would be a two.

Parental discord was measured by combining three questions. These questions included: "did your parents get along," "did your parents have arguments," and "did your parents have physical fights?" The first question was recoded so that participants reporting parents getting along will be 0=no and participants reporting parents not getting along will be 1=yes. Doing this allowed for the presence of "parents not getting along" to be measured, which indicates parental discord. If a participant answered "yes" to either of the last two questions, then their score would be 1=yes, which is how the data was originally coded. An answer "no" to the first question and "yes" to either of the other two questions resulted in the variable being coded as 1=yes in the current study.

Parental substance use was measured using two questions indicating whether either of the participant's parents has ever had a problem with substance use. Both questions had three

response options (0=no, 1=had a problem in the past, 2=has a problem currently). Each of these measures were recoded so that a response of either 1 or 2 was 1=yes to represent the experience of parental substance use. For the purpose of this study, experience of parental substance abuse related to either or both parents will be coded as 1=yes.

Parental incarceration and parent mental illness were both measured and recoded in the same way. Each question was originally measured at the nominal level indicating the type of relationship of people in the participant's life who had been incarcerated or sent to a mental hospital. Respondents were given the opportunity to identify up to five people in their lives who had been incarcerated or sent to a mental hospital. Respondents who indicated their parents (biological, step, adopted, foster) as the relationship were counted as "yes." Any indication of a parent being incarcerated was coded as 1=yes, and any indication of a parent being sent to a mental hospital was coded as 1=yes.

Parental separation was recoded similar to the process of the recoding for parental incarceration and parental mental illness. This item was originally measured at the nominal level indicating the marital status of the participant's biological parents. Two of the options included that their parents were separated or divorced, which were the only two options that indicated parental separation. Therefore, this variable was recoded so that any response for parents being separated or divorced was coded as 1=yes.

Parental warmth was measured using two items from Conger and colleagues' (1994) Quality of Parental Relationships Inventory, which was a 42-item scale that measured the nature of the relationships between the participants and their parents. The questions used were measured on a four-point scale (1=never, 2=sometimes, 3=often, 4=always) in response to questions such as "how often does your mother let you know she really cares about you" and "how often does

your father tell you he loves you" (Mulvey, 2016, p.343). Parental warmth was measured separately for mothers and fathers, so participants had two scores for this single item. The scores for participants were reported as the average of the responses with a high score indicating a more supportive and nurturing relationship between the participant and their parents. Since experiencing low parental warmth is indicative of a less supportive and nurturing relationship, scores of 2 and below were recoded as 1=yes and scores above 2 were recoded as 0=no. This cutoff will account for the participant experiencing any indications of low parental warmth. A score of 1 for either maternal or paternal warmth indicated a lack of parental warmth.

Similarly, parental hostility was measured using two items from Conger and colleagues' (1994) 42-item Quality of Parental Relationships Inventory to measure the nature of the relationships between the participants and their parents. The questions used included "how often does your mother get angry at you" and "how often does your father throw things at you" (Mulvey, 2016, p.345) and were measured on a four-point scale (1=never, 2=sometimes, 3=often, 4=always). Participants had two scores for this measure since parental hostility was measured separately for mothers and fathers. Scores were reported as the average of the responses with a high score indicating a more supportive and nurturing relationship between the participant and their parents. Since experiencing high parental hostility is indicative of a less supportive and nurturing relationship, scores 2 and below were recoded as 1=yes and any score above 2 was recoded as 0=no. This cutoff will account for the participant experiencing any parental hostility. A score of 1 for either maternal or paternal hostility indicated the presence of parental hostility.

Finally, parental monitoring was measured using two items. The first item used was a five-item scale that measured the parent's knowledge about "how the juvenile spends their free

time" using the Parental Monitoring Inventory developed by Steinberg and colleagues (Mulvey, 2016). This was answered on a four-point scale (1=doesn't know at all, 2=knows a little bit, 3=knows a lot, 4=knows everything) and the average of the five items was reported as the score with a lower score indicating less parental monitoring. The second item used was a separate four-item scale on the same inventory by Steinberg and colleagues (Mulvey, 2016). This measured the direct parental monitoring of the youth's behavior on a four-point scale (1=never, 2=sometimes, 3=usually, 4=always) and also reported the score as the average of the four items with a lower score indicating less parental monitoring. Both of the variables were recoded so that a score of 1-2.5=1 (yes) and anything above 2.5=0 (no). This cutoff was determined because low parental monitoring exists if the parent knows less than a lot and if the parent actively monitors the juvenile's behavior less than usually. Any response indicating low parental monitoring was coded as 1=yes in the current study.

Analysis

Descriptive statistics will first be reported for the demographic information of the participants including their age, ethnicity, and gender. This will provide an understanding of the sample and how closely it represents the population of juvenile offenders, which is important for generalizing the findings. Measures of central tendency were computed for all of the independent and dependent variables. Doing this allowed for an examination of the average number of negative parental influences experienced, the average criminal thinking score in the sample, and the distribution of the sample.

To answer the overall research question, six hypotheses were tested. The first four hypotheses relate to the direct relationships of negative parental influences and criminal thinking to juvenile problem and offending behaviors. Hypotheses 1 and 3 are based on the previous

research that supports a relationship between parenting and problem and offending behavior (Chipman et al., 2000; Cuadra et al., 2014; Fox et al., 2015) and between criminal thinking and offending behavior (Folk et al., 2018; Walters, 2020a). The research informing hypotheses 2 and 4 suggests that early onset and chronic offenders have more negative parental experiences (Baglivio et al., 2014; Fox et al., 2015) and score higher in criminal thinking (Walters, 1995; Walters & Lowenkamp, 2016).

- Hypothesis 1: There will be a relationship between negative parental influences and juvenile problem and offending behaviors.
- Hypothesis 2: There will be a significant difference in the number of negative parental influences experienced by early onset and non-early onset juvenile offenders.
- Hypothesis 3: There will be a relationship between criminal thinking and juvenile problem and offending behaviors.
- Hypothesis 4: There will be a significant difference in the criminal thinking scores of early onset and non-early onset juvenile offenders.

The final two hypotheses relate to the theorized relationship between negative parental influences and criminal thinking. There is evidence that negative parental influences can have an effect on the development of cognitive functioning, emotional regulation, self-control, and coping (Agnew, 1992; Pratt & Cullen, 2000; Schroeder et al., 2010; Toth & Cichetti, 2013), which is a basis for the fifth hypothesis. Cuadra and colleagues' (2014) study found support for criminal thinking as a mediating factor between one type of negative parental influence and adult offending. This finding, coupled with the suggested connection between negative parental influences and criminal thinking, is what the final hypothesis is based off of.

- Hypothesis 5: There will be a relationship between the number of negative parental influences and criminal thinking.
- Hypothesis 6: Criminal thinking will account for a significant portion of the relationship between negative parental influence and juvenile offending.

Bivariate Analyses

Pearson's correlation coefficient (*r*) was used to measure the significance of the relationship between negative parental influences and problem and offending behaviors in hypothesis 1, the relationship between criminal thinking and problem and offending behaviors in hypothesis 3, and negative parental influences and criminal thinking for hypothesis 5. This test represents standardized covariance, so it is useful in determining the direction and strength of the relationship between the two variables in these hypotheses.

An independent samples *t*-test was used to analyze hypotheses 2 and 4. The t-test can show if there is a significant difference between the means of the groups. In hypothesis 2, the *t*-test revealed if there was a significant difference between the number of negative parental influences experienced by average offenders (group 1) and early onset offenders (group 2). In hypothesis 4, the *t*-test determined if there was a significant difference between the criminal thinking score of average offenders (group 1) and early onset offenders (group 2).

Multivariate Analyses

A series of Ordinary Least Squares (OLS) regression models consisting of four waves was used in order to test hypothesis 6, which directly answered the research question of whether criminal thinking mediates the relationship between negative parental influences and juvenile problem and offending behaviors. OLS regression was chosen because it is a linear model that measures how much of the variance in a relationship is explained by another variable. This test

revealed if the inclusion of the criminal thinking variables in the statistical model increased the percent of the variation that is explained.

The first wave included the control variables, which are the demographic variables, and tested the relationship between the negative parental influences and juvenile problem and offending behaviors. This first test contained the original variance between negative parental influences and juvenile problem and offending behaviors. Waves 2, 3, and 4 included criminal thinking variables. In wave 2, PCT variables were added to the statistical model used in wave 1 in order to determine if PCT alone explained a significant percentage of the variance between negative parental influences and juvenile problem and offending behaviors. Wave 3 did the same as wave 2, but RCT variables were added to the statistical model used in wave 1 instead of the PCT variables. This showed whether RCT alone explained a significant percentage of the variance between negative parental influences and juvenile problem and offending behaviors. Finally, wave 4 added PCT and RCT variables to the model in wave 1, which was used to conclude whether general criminal thinking explained a significant percentage of the variance between negative parental influences and juvenile problem and offending behaviors.

Chapter Summary

Chapter three explained the sample, variables, and analyses included in the current study in answering the overarching research question of if criminal thinking mediates the relationship between negative parental influences and juvenile problem and offending behaviors. The first step was to establish that there is a separate relationship between negative parental influences and juvenile problem and offending behaviors, criminal thinking and juvenile problem and offending behaviors, and negative parental influences and criminal thinking. Then the question can be answered by using a series of regression models with four waves in order to determine

whether criminal thinking in general accounts for a significant percent of the variance between negative parental influences and juvenile problem and offending behavior. The data used was secondary, so there are limitations to the validity and generalizability of the results due to the restrictions of the measurements of the concepts and recoding. Chapter four will outline the results from the statistical analyses discussed in chapter three.

Chapter 4. Results

Several different statistical tests were used to test the hypotheses. The characteristics of the sample and descriptive data were derived from univariate statistics. Bivariate analyses were used to determine the relationships between variables. Correlations were used to determine the strength and direction of the relationship between variables, and independent samples t-tests were used to analyze the relationship between independent and dependent variables. Finally, this study also used four waves of OLS regression models to determine the nature and significance of the relationship between several variables.

Univariate Statistics

Frequencies for the nominal and ordinal level data in this sample can be found in Table 1. The study included 1354 participants who were mostly non-white (79.8%) males (86.4%) aged 16 (30.4%) or 17 (30.5%). The majority of them were considered early onset offenders (93.1%) and engaged in non-violent offending behaviors (52%). Of the eight negative parental influences, most of the participants had experienced parental hostility (92.1%), parental discord (77.9%), parental incarceration (58.2%), low parental monitoring (58.2%), and parent substance use (51.9%). Less than half the respondents reported parental separation (32.3%), parent mental illness (32.1%), and low parental warmth (20.9%). Figure 1 demonstrated that the negative parental influences were normally distributed. The average number of negative parental influences experienced was 3.5 with a standard deviation of 1.42, the median number of experiences was 3, and the experiences were bimodal with most participants experiencing 3 or 4 of the negative parental influences.

Table 1

Frequencies

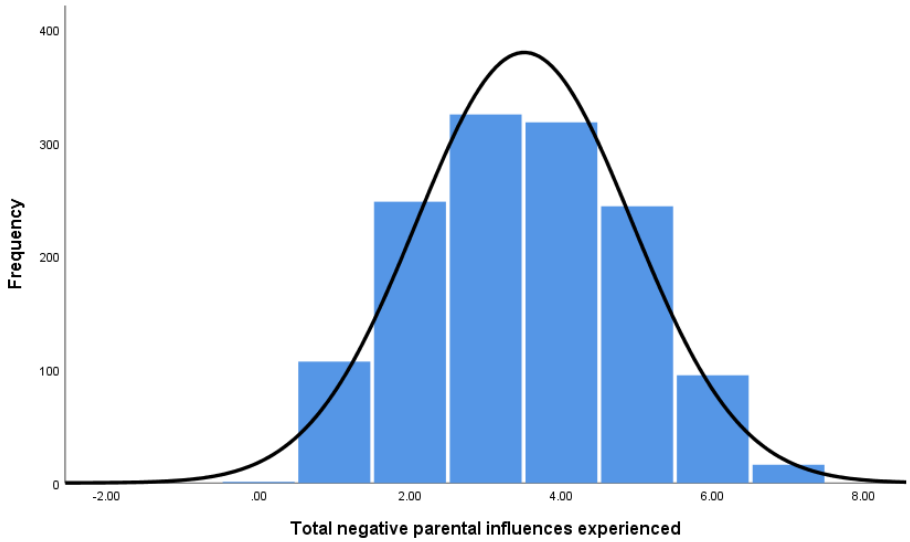
Variable	Frequency	Percent (%)
Age		
14	162	12
15	255	18.8
16	412	30.4
17	413	30.5
18	111	8.2
19	1	.1
Total	1354	100
Ethnicity		
White	274	20.2
Non-white	1080	79.8
Total	1354	100
Gender		
Male	1170	86.4
Non-male	184	13.6
Total	1345	100
Early Onset		
Yes	92	6.9
No	1251	93.1
Total	1343	100
Problem and Offending Behaviors		
Violent	3254	26.5
Non-violent	6394	52
Problem	2638	21.5
Total	12286	100

Table 1 (continued)

Variable	Frequency	Percent (%)
Negative Parental Influences		
Parental Hostility	1213	92.1
Parental Discord	716	77.9
Parental Incarceration	614	58.2
Parental Monitoring	755	58.2
Parent Substance Use	686	51.9
Parental Separation	429	32.3
Parent Mental Illness	60	32.1
Parental Warmth	279	20.9

Figure 1

Negative Parental Influences Histogram



Descriptive statistics were also produced for the criminal thinking z-scores for the participants. The measures of central tendency were reported for the proactive, reactive, and general thinking scores (see Table 2). A higher score was indicative of more proactive, reactive, or general criminal thinking. Proactive criminal thinking (PCT) ranged from a score of -1.75 to

3.92 with a median of -.08 and a mode of -.67. Reactive criminal thinking (RCT) had a smaller range of scores from -2.41 to 2.07 and a median and mode of -.04. Both PCT and RCT were z-scores, so the means were 0 and standard deviations were 1. The ranges for PCT and RCT scores revealed that participants had higher PCT scores than RCT scores, indicating more proactive criminal thinking among the juvenile offenders. General criminal thinking (GCT) was the average of the PCT and RCT scores and ranged from -1.91 to 2.73 with a mean of 0, a standard deviation of .83, a median of -.04, and a mode of -1.6.

Table 2

Descriptive Statistics for Criminal Thinking z-Scores

Variable	Min.	Max.	Mean	Std. Deviation	Mode	Median
Proactive Criminal Thinking	-1.75	3.92	0	1	-.67	-.08
Reactive Criminal Thinking	-2.14	2.07	0	1	-.04	-.04
General Criminal Thinking	-1.91	2.73	0	.83	-1.60	-.04

Bivariate Statistics

Correlation

Pearson's correlation test was conducted for three of the variables in the study to address hypotheses 1, 3, and 5. The Pearson *r* value indicates the strength and direction of the relationship between the variables. Pearson *r* ranges from -1 to 1 with -1 indicating a perfect negative correlation, 1 indicating a perfect positive correlation, and 0 indicating no relationship. A positive relationship means that as one variable increases, so does the other, or as one variable decreases the other does as well. A negative relationship means that as one variable increases the other decreases, or vice versa.

A correlation matrix was created to better organize the results (see Table 3). Hypothesis 1 was that there would be a relationship between negative parental influences and juvenile problem

and offending behaviors. In support of hypothesis 1, the correlation matrix shows a significant positive relationship between negative parental influences and juvenile problem and offending behaviors ($r = .289$; $p < .05$). This means that more negative parental influences experienced by a juvenile moderately correlates with more problem and offending behaviors. Hypothesis 3 stated that there would be a relationship between criminal thinking and juvenile problem and offending behaviors. The correlation matrix shows that hypothesis 3 was also supported. There was a significant and strong positive relationship between criminal thinking and juvenile problem and offending behaviors ($r = .465$; $p < .05$). As a juvenile's general criminal thinking score increased so did their problem and offending behaviors. Finally, hypothesis 5, which said that there would be a relationship between the number of negative parental influences and criminal thinking, was also supported. The correlation matrix shows a significant but moderate positive relationship between the number of negative parental influences and criminal thinking ($r = .243$; $p < .05$). This means that more negative parental influences experienced by a juvenile correlates with an increase in general criminal thinking.

Table 3

Pearson Correlation Matrix

	Problem and Offending Behaviors	Negative Parental Influences	General Criminal Thinking
Problem and Offending Behaviors	---		
Negative Parental Influences	.289*	---	
General Criminal Thinking	.465*	.243*	---

*$p < .05$

Independent Sample t-tests

Hypotheses 2 and 4 were tested using independent samples *t*-tests. This test is used to determine if there is a significant difference in participants who belong to a certain group. This study considered whether participants grouped as early-onset offenders differed from the non-early onset offenders in their number of negative parental influences experienced and in their general criminal thinking scores. Therefore, *t*-tests are appropriate to use because they can help determine if the mean for negative parental influences of the early onset group and the mean for general criminal thinking of the early onset group differ significantly from that of the non-early onset group.

Each of the hypotheses tested using the independent samples *t*-tests were supported. Hypothesis 2 was that there would be a significant difference in the number of negative parental influences experienced by early onset and non-early onset juvenile offenders. The average number of negative parental influences experienced by early onset offenders was 3.548, which was similar to the average number experienced by non-early onset offenders (M=3.054). However, this small difference was significant (t= 3.075; p= .003). This means that early onset offenders have experienced significantly more negative parental influences than non-early onset offenders. Hypothesis 4 stated that there would be a significant difference in the criminal thinking scores of early onset and non-early onset juvenile offenders. Early onset offenders had a mean of .030 for their general criminal thinking score, while non-early onset offenders had a mean of -.403. This difference in means was significant (t= 5.414; p< .01). This shows that early onset juvenile offenders have significantly higher criminal thinking scores than non-early onset juvenile offenders.

Multivariate Statistics

Ordinary Least Squares (OLS) regression was used to test hypothesis 6 and answer the overall research question. OLS regression reveals the importance of each independent variable included in the test and also reports the adjusted R^2 statistic, which shows the amount of variance explained by all of the variables included in each wave. Using OLS regression allows for the analysis of how much more variance is explained by the presence of different independent variables in the model. Each independent variable has a beta statistic which can be compared with the other independent variables of the beta statistics in the same waves.

The current study conducted a series of four waves of OLS regression for the dependent variable of juvenile problem and offending behaviors (see table 4). Wave 1 included all control variables and one independent variable that was included in all the waves. Each subsequent wave included a different type of criminal thinking. This was done in order to determine if criminal thinking could explain more of the variance in the relationship between negative parental influences and juvenile problem and offending behaviors. Wave 1 included age, gender, and ethnicity as control variables and negative parental influences as the independent variable. All variables except ethnicity significantly affected juvenile problem and offending behaviors with negative parental influences having the most impact on the dependent variable. This pattern of significance can be observed in all four waves of OLS regression.

Hypothesis 6 stated that criminal thinking would account for a significant portion of the relationship between negative parental influence and juvenile offending. This hypothesis was supported by the OLS regression analysis. Proactive criminal thinking (PCT) was a strong and significant factor (Beta= .319; $p< .01$) that accounted for much more of the overall explained variance ($R^2 = .232$) when it was added to the model. When PCT was added to the model, it

decreased the impact of negative parental influence from a beta of .292 to a beta of .240, but negative parental influences maintained its significance. In Wave 3, Reactive criminal thinking (RCT) was added to the model from Wave 1 and was found to be a strongly significant factor (Beta=.361; p< .01) that accounted for even more of the overall explained variance (R^2 = .256) in the model than PCT did. RCT decreased the impact of negative parental influence from a beta of .292 to a beta of .215, but still negative parental influences were a significant factor. This means that PCTs, RCT, and negative parental influences are all significant predictors for juvenile problem and offending behavior. RCT is a stronger predictor than both PCT and negative parental influences, but they are all significant factors.

Table 4

OLS Regression Results for Juvenile Problem and Offending Behaviors

	Wave 1	Wave 2	Wave 3	Wave 4
Variable	Beta	Beta	Beta	Beta
Age	.169*	.173*	.177*	.179*
Gender	-.150*	-.124*	-.140*	-.123*
Ethnicity	-.004	-.026	.033	.005
Negative Parental Influences	.292*	.240*	.215*	.195*
Proactive Criminal Thinking		.319*		
Reactive Criminal Thinking			.361*	
General Criminal Thinking				.416*
R^2	.136	.235	.259	.299
Adjusted R^2	.133	.232	.256	.297

*p < .01

Wave 4 was the final wave of OLS regression needed to fully answer the research question. When general criminal thinking (GCT) was added to the model in Wave 1, it was also found to be a strong and significant influence (Beta= .416; p< .01), and it accounted for

significantly more of the overall explained variance ($R^2 = .297$; $p < .01$) in the model than either PCT or RCT did alone. The inclusion of GCT into the original model greatly reduced the impact of negative parental influence from a beta of .292 to a beta of .195. Even with this drastic reduction in strength, negative parental influences remained a significant predictive factor. The adjusted R^2 in this wave means that GCT explained 29.7% of the overall variance in the original relationship between negative parental influences and juvenile problem and offending behaviors, whereas negative parental influences alone only accounted for 13.3% of the variance in that relationship. Analyses partially support the research question that criminal thinking is a mediating factor in the relationship between negative parental influences and juvenile problem and offending behaviors because negative parental influences also remained significant.

Chapter Summary

All of the hypotheses originally presented in chapter 1 were supported by statistical analyses. Bivariate analyses supported hypotheses 2 and 4, indicating that early onset offenders experienced significantly more negative parental influences and had significantly higher criminal thinking scores than non-early onset offenders. Hypotheses 1, 3, and 5 were also supported by the results of bivariate analyses which showed a significant positive relationship between negative parental influences and juvenile problem and offending behaviors, criminal thinking and juvenile problem and offending behaviors, and negative parental influences and criminal thinking. Multivariate statistics were used to address the final hypothesis and overarching research question. Results supported hypothesis 6 because all three measures of criminal thinking did account for a significant portion of the relationship between negative parental influences and juvenile offending. The research question, however, only gained partial support

since negative parental influences remained a significant predictor in all four waves of OLS. Chapter five will further discuss these findings.

Chapter 5. Discussion

This study was conducted to determine if criminal thinking was a mediating factor between negative parental influences and juvenile problem and offending behavior. Existing literature established a relationship between negative parental influences and juvenile offending (e.g., Baglivio et al., 2017; Whitten et al., 2019; Wolff et al., 2017) and between criminal thinking and juvenile offending (e.g., Cuadra et al., 2014; Walters, 2016b; 2020a), but only two studies linked negative parental influences and criminal thinking (Cuadra et al., 2014; Rose et al., 2014). The current study used age and juvenile problem and offending behaviors to examine differences between early onset and non-early onset offenders. It was important to understand if the early onset offenders had more negative parental influence experiences or if they had higher criminal thinking scores because a difference in those factors would justify focusing treatment on the high-risk groups of offenders. This study used negative parental influences to measure traumatic experiences and parenting practices that have been shown to have negative impacts on developmental processes that are likely to result in offending behaviors (e.g., Duke et al., 2010; Fox et al., 2015; Grady et al., 2017; Grusec & Davidov, 2010). Criminal thinking was used as the mediating variable because of its role as a risk/need factor (Andrews & Bonta, 2010), its ability to predict reoffending (Walters, 2020a), and previous findings that it is a mediating factor in different pathways to offending (Cuadra et al., 2014; Walters, 2016a).

Using a secondary dataset of 1,354 juvenile offenders, this study explored an understudied topic in criminal justice research. In the only study on this topic, Cuadra and colleagues (2014) found that criminal thinking was a mediating factor in the relationship between abuse and adult offending. Expanding on their findings, the current study confirmed that

criminal thinking is a significant predicting factor in the pathway from experiencing negative parental influences to juvenile problem and offending behaviors.

Findings

Before exploring the relationship between all three of the variables, it was important to first establish a relationship between them separately. Pearson's r was used to address hypotheses 1, 3, and, 5 which analyzed the direction and strength of the relationship between negative parental influences and juvenile problem and offending behavior, criminal thinking and juvenile problem and offending behavior, and negative parental influences and juvenile problem and offending behavior, respectively. Hypotheses 1 and 3 were based on the existing relationship established in literature between the respective variables. Negative parental influences are consistently reported to be a strong risk factor for violent, initial, and continued offending (e.g., Baglivio et al., 2017; Whitten et al., 2019; Wolff et al., 2017). Criminal thinking has also been found to be significantly related to initial and continued offending (Walters, 2016b; 2020a), and has a strong relationship with important risk factors for criminality such as low self-control (e.g., Cuadra et al., 2014; Pratt & Cullen, 2000; Walters, 2020b). Research only shows an indication that a relationship exists between negative parental influences and criminal thinking, so the rationale for hypothesis 5 was largely based on the link that Cuadra and colleagues (2014) and Rose and colleagues (2014) established between the two variables.

A correlation matrix showed a significant positive relationship between that variables for all three hypotheses. There was a significant moderate relationship between negative parental influences and juvenile problem and offending behavior (r= .289) and between negative parental influences and criminal thinking (r= .243), and a strong significant relationship between criminal thinking and juvenile problem and offending behavior (r= .465). These findings were largely

expected and confirm the existing literature. This support is especially important for the relationship between negative parental influences and criminal thinking because it builds onto the findings in Cuadra and colleagues' (2014) and Rose and colleagues' (2014) studies, which are two of the only studies to suggest a relationship between these two variables. An important part of the results for the current study was that there is a relationship between negative parental influences and criminal thinking and between criminal thinking and juvenile problem and offending behavior. There was a good indication that criminal thinking would play a big part in the relationship between negative parental influences and juvenile problem and offending behavior since criminal thinking had a much stronger impact on juvenile problem and offending behavior compared to negative parental influences.

Research has connected the smaller portion of early onset offenders, juveniles who begin offending before age 14, with being responsible for a larger portion of crime, and these chronic offenders are likely to be classified as high risk (Barrett & Katsiyannis, 2016; Livingston et al., 2008). Criminal thinking patterns and experiencing some negative parental influences are important risk factors in classifying offenders as high risk (Andrews & Bonta, 2010), so hypotheses 2 and 4 were informed by this research. Hypothesis 2 was that there would be a significant difference in the number of negative parental influences experienced by early onset and non-early onset juvenile offenders, and hypothesis 4 was that there would be a significant difference in the criminal thinking scores of early onset and non-early onset juvenile offenders.

Independent samples t-tests were used to determine if there was a significant difference between the number of negative parental influences experienced by and the criminal thinking scores of early onset and non-early onset offenders. Although the means between the two groups for both variables were similar, each difference was significant. The average number of negative

parental influences experienced by early onset offenders (3.548) was similar to that of non-early onset offenders (3.054). This difference was found to be significant, (t= 3.075; p= .003) indicating that the early onset offenders did experience significantly more negative parental influences than non-early onset offenders. Analyses also showed that early onset juvenile offenders had significantly higher criminal thinking scores than non-early onset juvenile offenders (t= 5.414; p< .01).

Early onset offenders having higher criminal thinking scores and experiencing more negative parental influences is consistent with prior research (Andrews & Bonta, 2010, Barrett & Katsiyannis, 2016; Livingston et al., 2008). This finding is important because it shows that early onset offenders are highly likely to have important risk factors that need to be addressed in treatment if they are to be prevented from becoming chronic offenders. Hypotheses 1 and 3 showed that the risk factors of criminal thinking and negative parental influences are significantly related to juvenile offending behavior as an outcome, so since early onset offenders are more likely to experience these risk factors, they are at an increased risk to continue their offending behaviors. This means that criminal thinking patterns and experiences of negative parental influences will likely be beneficial to target in treatment, especially if focused on early onset juvenile offenders.

Hypothesis 6 and the research question sought to expand the current literature to examine if criminal thinking was a mediating factor between negative parental influences in general and juvenile problem and offending behaviors. Cuadra and colleagues' (2014) study was the only literature that has considered criminal thinking as a mediating factor between the influence of parents and offending behavior, so the findings in the current study were important for expanding on this subject in the field of criminal justice. Four waves of OLS regression were

conducted in order to answer the research question and address hypothesis 6. In all four waves, negative parental influences remained a significant influencing variable, although it was weakened with the addition of criminal thinking styles. In line with previous research, reactive criminal thinking (RCT) was a better predictor for problem and offending behavior than proactive criminal thinking (PCT), and general criminal thinking (GCT) was a stronger predictor than RCT or PCT alone (Walters, 2012; 2018; 2020a; Walters & Lowenkamp, 2016). RCT may be a stronger predictor for juvenile problem and offending behaviors than PCT because PCT is planned or rational whereas RCT is impulsive and emotional, which is more characteristic of adolescents in general. These findings are important for the field of criminal justice. The results support and expand on Cuadra and colleagues' (2014) study, which is the only other study to consider criminal thinking as a pathway from negative parental influences to offending. The current study has meaningfully added to the current literature in criminal justice by validating a relationship between two criminological factors that are scarcely explored together in existing research.

Implications

Findings from the current study serve to guide and improve treatment for juvenile offenders. While the effects of negative parental influences still appear to be strong influences on juvenile offending behavior, it appears that criminal thinking should also be a consideration because the impact of negative parental influences is weaker when PCT, RCT, and GCT are included. The findings suggest that risk assessments and subsequent treatment programs need to consider criminal thinking along with negative parental influences if continued juvenile problem and offending behavior is to be effectively reduced. Focusing on one or the other would be a disservice to the offender. Additionally, the results highlight the importance of considering both

PCT and RCT in making treatment decisions. Both types of criminal thinking are separately significant predictors of juvenile problem and offending, so to consider one type and not the other would provide an incomplete assessment of risks and needs.

Andrews and Bonta (2010) concluded that high risk offenders need to be targeted with the most intense treatment and that treatments should be focused on their specific needs as identified by risk/need assessments. It is suggested that therapeutic interventions, skill-building, and cognitive-behavioral therapy be used with early onset juvenile offenders since early onset offenders are most likely to be high-risk and chronic offenders (Barrett & Katsiyannis, 2016) and because the current study found that early onset offenders did have higher criminal thinking scores and experienced more negative parental influences. Those types of treatment intervention are recommended because of their ability to address deficits in psychological and social developments (Bogestad et al., 2010; Lipsey, 2009). Focusing those types of treatments on such a high-risk group could be extremely beneficial in improving the deficits caused by negative parental influences, and also in correcting the criminal thinking patterns that the juvenile engages in. Using treatment in a purposive and directed manner informed by research can improve the effectiveness of treatment programs and save the criminal justice system money by preventing those early onset offenders who are responsible for a large percentage of crimes from continuing their criminal careers.

Limitations

While the current study added to the existing literature on juvenile offending, and has important implications, there are limitations that could impact the generalizability and applicability of the results. The limitations stem from the data source. All data were secondary, originating in the Research on Pathways to Desistence study which had a goal of understanding

more about why juveniles desist and how court sanctions effect desistence (Mulvey, 2016). Some data that was relevant to the current study, such as prior arrests, age at arrests, and certain offenses, had to be masked for confidentiality which resulted in less items able to be used to measure a concept. For example, serious crimes including rape and murder were not available for analysis. Including these crimes in the juvenile problem and offending behaviors variable could have changed the statistical outcome. Also, some concepts were not completely included in the original study, so the current study had to rely on a combination of measures. For instance, a lot of the measures for negative parental influences had to use multiple items in order to get a valid measure of the dimension. Similarly, criminal thinking was not measured using a single scale like it typically would be, so the current study used a combination of items to measure criminal thinking, which was still a valid measure according to Walters (2016a). Most of the measures had to be recoded in order for the statistics to be uniform and meaningfully computed and interpreted. Relatedly, some variables used in the current study had to include a cutoff in order for the scores to be recoded. The cutoff values used were informed by research and logic based on what was measured, but it still could have resulted in missed cases that should have been included or cases being included that should not have been.

Future Research

The current study looked at an understudied concept in the field of criminal justice and found support for criminal thinking to be a pathway from negative parental influences to juvenile problem and offending behavior. There are several recommendations for future research because of this finding. First, studies should look at criminal thinking as a pathway to offending with specific offender populations, such as female offenders, sex offenders, and violent and non-violent offenders. The strength of negative parental influences or criminal thinking could be

stronger or weaker for predicting offending in different populations. Also, studies should look at criminal thinking as a pathway to offending from risk/need factors other than negative parental influences. Walters (2016a) found that PCT was a mediating factor between having antisocial peers and offending, so the role of criminal thinking as a mediating factor has merit and should be further explored. Further, PCT and RCT as mediating factors should be included in future research and either measured through a single scale, such as PICTS, or assessed in qualitative research in order to identify any nuances or additional impacts on criminal thinking that quantitative research misses.

Additionally, if the ultimate goal of criminal justice research is to help reduce or better respond to crime, then intervention and treatment programs should implement tools that focus on identifying negative parental influences that early onset juvenile offenders experience as well as their level of criminal thinking. The treatment or intervention program that does this should be evaluated with longitudinal studies in order to determine if the intervention did reduce the offenders' recidivism. Doing this will help inform future research of anything that needs to be improved on or further studied in these interventions.

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APPENDIX: Variables Table

Control Variables			Description
Age			Age of juvenile offender at time of survey
Gender			Gender of juvenile offender [0=Male, 1=Non-male]
Ethnicity			Ethnicity of juvenile offender [0=White, 1=Non-white]
Dependent Variables	**Original Measure(s)**	**Recoded Measures**	**Description**
Juvenile problem and offending behaviors	22 problem and offending behaviors	Juvenile did engage in this behavior [0=No, 1=Yes]	Total number of behaviors they engaged in ranges from 1-22
Early onset	Age at first offense	Juvenile identified as early onset [0=No, 1=Yes]	Identified as early onset if recoded 1=Yes for age at first offense
Age at first offense	9 and younger - 17	0= 14-17 1= 9 and younger - 13	0=No, not early onset 1=Yes, early onset
Proactive criminal thinking (PCT)	Average score on Moral Disengagement scale	Transformed into Z-Score	Standardized score for PCT
Reactive criminal thinking (RCT)	Average score on impulse control scale	Reverse coded Transformed into Z-Score	Standardized score for RCT
General criminal thinking (GCT)		Average of PCT and RCT scores after RCT was reverse coded	Average of PCT and RCT standardized scores

Independent Variable	Original Measure(s)	Recoded Measures	Description
Parental Discord	Three questions about parental discord happening	Juvenile did experience parental discord [0=No, 1=Yes]	Coded as 1=Yes if originally coded or recoded as a 1 to any of the three questions
Did parents get along?	0=No, 1=Yes	0=Yes, 1=No	Parents not getting along indicates parental discord
Did parents argue?	0=No, 1=Yes		Parents arguing indicates parental discord
Did parents have physical fights?	0=No, 1=Yes		Parents having physical fights indicates parental discord
Parental Substance Use	Two questions about parents using substances	Juvenile did experience parental substance use [0=No, 1=Yes]	Coded as 1=Yes if recoded as a 1 to either of the two questions
Mother ever had a problem with substances?	0=No 1=problem in past 2=current problem	0=0; No 1=1 and 2; problem in past or current	Mom ever having problem with substances indicates parental substance use
Father ever had a problem with substances?	0=No 1=problem in past 2=current problem	0=0; No 1=1 and 2; problem in past or current	Dad ever having problem with substances indicates parental substance use
Parental Incarceration	Five questions to identify relationship of relative incarcerated	Juvenile did experience parental incarceration [0=No, 1=Yes]	Coded as 1=Yes if recoded as a 1 any of the five questions
Identify relationship of relative 1-5 that was incarcerated	1=parents 2=siblings 3=significant other 4=child 5=male relative 6=female relative	0=2, 3, 4, 5, 6, and 7 1=1	Identifying a parent as the person incarcerated in any of the five questions indicates parental incarceration

	7=other		
Parent Mental Illness	Five questions to identify relationship of relative sent to mental hospital	Juvenile did experience parent mental illness [0=No, 1=Yes]	Coded as 1=Yes if recoded as a 1 any of the five questions
Identify relationship of relative 1-5 that was sent to mental hospital	1=parents 2=siblings 3=significant other 4=child 5=male relative 6=female relative 7=other	0=2, 3, 4, 5, 6, and 7 1=1	Identifying a parent as the person sent to a mental hospital in any of the five questions indicates parent mental illness
Parental Separation	One question to identify parental marital status	Juvenile did experience parental separation [0=No, 1=Yes]	Coded as 1=Yes if recoded as a 1
Identify parents' marital status	1=never married 2=separated 3=divorced 4=married 5=widowed 6=mother remarried 7=father remarried 8=both remarried 9=both deceased	0=1, 4, 5, 6, 7, 8, and 9 1=2 and 3	Identifying parents only as separated or as divorced indicates parental separation
Parental Warmth	Two averages from one scale; Average for scale pertaining to mom and average for scale pertaining to dad	Juvenile did experience low parental warmth [0=No, 1=Yes]	Coded as 1=Yes if recoded as a 1 on either scale
Mom/dad warmth scale	1=never 2=sometimes 3=often 4=always	0= 2.1 - 4 1= 1 - 2	Low scores on either of the scales indicates the juvenile experienced any low parental warmth

Parental Hostility	Two averages from one scale; Average for scale pertaining to mom and average for scale pertaining to dad	Juvenile did experience parental hostility [0=No, 1=Yes]	Coded as 1=Yes if recoded as a 1 on either scale
Mom/dad hostility scale	1=never 2=sometimes 3=often 4=always	0= 2.1 - 4 1= 1 - 2	Low scores on either of the scales indicates the juvenile experienced any parental hostility
Parental Monitoring	Two questions about level of parental monitoring	Juvenile did experience low parental monitoring [0=No, 1=Yes]	Coded as 1=Yes if recoded as a 1 for either question
Knowledge about free time	1=doesn't know at all 2=knows a little bit 3=knows a lot 4=knows everything	0= 2.6 – 4 1= 1 – 2.5	Lower score means less parental knowledge about how juvenile spends free time, which indicates low parental monitoring
Direct monitoring	1=never 2=sometimes 3=usually 4=always	0= 2.6 – 4 1= 1 – 2.5	Lower score means less direct parental monitoring of juvenile's activity, which indicates low parental monitoring

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