

NEGATIVE AFFECT AND COPING IN CAREGIVERS OF CONDUCT  
DISORDERED YOUTH

by

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## ABSTRACT OF THE THESIS

### Negative Affect and Coping in Caregivers of Conduct Disordered Youth

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This study aimed to investigate the differences between caregivers of two subgroups of youth with conduct disorder (CD), those with callous-unemotional traits (CU) and those without callous-unemotional traits. The primary focus of this research was to explore the differences of the caregivers across three factors: expression of negative emotions (e.g. anger, fear, anxiety, and depression), coping strategies/interventions, and perceived temperament of their child in toddlerhood. The caregivers from each group were interviewed and given questionnaires to assess their child's temperament as well as the caregiver's level of depression, anxiety, and stress. The interviews were transcribed and analyzed. No differences were found across the three variables of interest. The CD caregivers utilized more different types of coping strategies than the CU caregivers; however it is unclear whether or not this finding is the result of chance. This study will serve as a springboard for future research which could potentially aid in the development and implementation of intervention programs for both caregivers and children affected by emotional and behavioral problems.

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## Negative Affect and Coping in Caregivers of Conduct Disordered Youth

### Introduction:

Conduct disorder (CD) is best described as a collection of behaviors that reflect a persistent and pervasive violation and disregard of the basic rights of individuals, age-appropriate societal norms, and laws set forth by the state and/or government (American Psychiatric Association, 2000 ; Frick & Dickens, 2006). The criteria from the Diagnostic and Statistical Manual of Mental Disorders, 4<sup>th</sup> edition (DSM-IV-TR) suggests that for the child or adolescent to receive a diagnosis of conduct disorder he/she must exhibit three or more of the listed behaviors (see appendix A) in the past 12 months, with at least one item being present in the last 6 months, across the following dimensions: aggression to people and/or animals (e.g. using a weapon, getting into fist fights, kicking the family pet), destruction of property (smashing windows, punching holes in walls, setting fires, graffiti), deceitfulness or theft (e.g. stealing without a weapon, conning others), and serious violations of rules (truancy, running away; American Psychiatric Association, 2000).

Conduct disorder occurs most commonly in males, with 3-5% of pre-adolescent males and 6-8% of adolescent males being diagnosed. Males outnumber females 4:1 in pre-adolescence and 2:1 in adolescence (Frick & Dickens, 2006). Those with conduct disorder show high levels of anxiety and depression, are more likely to drop out of school, have impaired educational achievement, experience conflict with parents, abuse substances, get arrested in adulthood, have poor work history as adults, and have unstable relationships and future mental health problems (Frick & Dickens, 2006; Frick, 2001). Past research has suggested that CD is a critical mental health concern because it causes

disruption in families, schools, and communities, as well as societal and monetary costs (Frick, 2001). It is because of the serious nature of CD that there has been a great deal of research to gain more insight into the disorder.

### Background and Significance:

Those diagnosed with CD are a heterogeneous group of youth in terms of severity, persistence of conduct problems, and presumed etiology. It is logical that these conduct disordered youth should be divided into meaningful subgroups (Frick & Moffitt, 2010). One subgroup consists of those with callous-unemotional traits (CU), a group of youth with serious behavioral problems, which unlike other forms of CD, seem to be unresponsive to attempts at treatment or melioration.

Over the past decade, researchers have begun to realize that the emotional deficits seen in psychopathic adults are also present, to a certain extent, in children and adolescents (Barry et al., 2000). Psychopathy is considered a personality disorder (although not a diagnosis) characterized by a collection of interpersonal, affective, and behavioral deficits which are thought to have a three factor structure: an arrogant, deceitful interpersonal style, a deficient emotional experience, and behavioral manifestations of impulsiveness, irresponsibility, and sensation-seeking (Dolan, 2004). Although it is recognized that early identification and intervention will be needed to avoid the worst consequences of the adult form of the disorder, more research is needed to better understand this unique subgroup of youth.

### *Conduct Disorder subgroups in the DSM-III*

In the DSM-III (American Psychiatric Association, 1980), subgroups existed within the diagnosis of CD based on the behavioral aspects of the youth (Frick & Moffitt,

2010). Conduct disorder was divided in terms of aggression (aggressive or non-aggressive), and socialization (socialized or undersocialized), with an atypical grouping used to explain those who violate the basic rights of others but do not meet all of the criteria of the CD diagnosis. Combining the two dimensions, the subtypes were as follows: undersocialized-aggressive, undersocialized-nonaggressive, socialized aggressive, and socialized-nonaggressive. The aggressive groups were primarily defined by reactive and physical behaviors such as fighting, bullying, assaulting, and mugging, but did not show forms of proactive or instrumental aggression (for one's own personal gain; Frick & Moffitt, 2010).

An individual who was “socialized” was characterized by an ability to form social attachments, but usually with deviant groups (e.g. gangs), which committed antisocial and aggressive acts. An individual who was “undersocialized” was characterized by a failure to establish a normal degree of affection, empathy, or bonding with others. They were egocentric, lacked peer relationships and lacked concern for others' feelings. These individuals showed callous behavior, lack of remorse, and a tendency to blame their deviant behavior on others. This subgroup tended to have a poorer treatment outcome and more pervasive antisocial behavior persisting into adulthood than the socialized group, as well as more arrests and institutionalizations (Frick & Moffitt, 2010).

It seemed promising at first to have the above subgroups in the DSM-III, but the term “undersocialized” was criticized by clinicians because its meaning was not clear. The term psychopathic was more relevant, but was not used for fear of possible stigmatization. In addition, the term “undersocialized” did not clearly address the emotional deficits seen in these particular children. The term was not continued in later



editions (Frick & Moffitt, 2010). Later, the DSM-III-R (American Psychiatric Association, 1987) listed three sub-categories of conduct disorder, rather than the five originally found in the DSM-III. These subcategories were as follows: group type (antisocial behavior as a group activity); solitary aggressive type (antisocial behavior as an individual activity); and undifferentiated type (both group and solitary behaviors). Currently, the DSM-IV-TR (American Psychiatric Association, 2000) sub-types CD by age of onset and severity of symptoms. The childhood-onset type is used when the symptoms are present before age 10, and the adolescent-onset type is used when the symptoms are present at or after age 10.

*Callous-unemotional youth as a sub-group of CD*

Research over the last decade has shown that youth who exhibit severe conduct problems and emotional/ interpersonal deficits, such as lack of remorse/ guilt, form a subgroup of youth who may exhibit the following: thrill-seeking/risky behaviors, aggressive behaviors, low behavioral inhibition, low sensitivity to punishment cues, and low reactivity to emotional stimuli (Frick, 2001). The emotional and social deficits listed are commonly referred to as callous-unemotional traits (CU), which is considered to be the core component of psychopathy seen in adults (Frick, 2001; Farrington, 2005; Kotler & McMahon, 2005). Individuals with these traits are less likely to respond to treatment, and are more likely than others with conduct disorder to continue aggressive and antisocial behaviors (Frick & Moffitt, 2010). As noted above, these children have negative effects on their schools, communities, and peers; however, a critical impact is on the caregivers and family members.

The idea that those with callous-unemotional traits were “different” from those with other types of CD has been examined over the last decade. Wootton, Frick, Shelton, and Silverthorn (1997) conducted a study proposing that callous-unemotional traits would moderate the effect of ineffective parenting. They used a sample of 166 children, ages 6-13, drawn from a clinic-referred population. An additional community sample of children was used as a control. The results showed that the association between ineffective parenting and conduct problems was moderated by the presence of high callous-unemotional traits (Wootton et al., 1997). Specifically, ineffective parenting was associated with increased numbers of conduct problems in children without high levels of CU traits. In contrast, the children high in CU traits exhibited high rates of conduct problems regardless of the quality of parenting that they received. This was an important discovery as it gave empirical evidence that callous-unemotional children should be considered a distinct subgroup.

Studies such as the one by Wootton et al. (1997) sparked the interest of other researchers in the area of conduct disorder. Current research has suggested the following about callous-unemotional traits in childhood/adolescence: they are relatively stable throughout development (Frick & White, 2008; Frick & Moffitt, 2010; Burke et al., 2007; Frick et al., 2003), significantly associated with measures of psychopathy in adulthood (Burke, Lahey, & Loeber, 2007; Frick & Moffitt, 2010), found in community, adjudicated, clinic-referred, and forensic samples (Frick & Moffitt, 2010; Frick, Bodin, & Barry, 2000), predominantly found in males and adolescents (Frick & Dickens, 2006), and are present in populations across different cultures (Frick & Moffitt, 2010). Research has shown that, compared with youth with low levels of CU traits, individuals who

exhibit higher levels show the following: a more pervasive and severe pattern of aggressive behavior (Frick & Moffitt, 2010), more instrumental and premeditated aggression (Frick & Moffitt, 2010), a decreased response to treatment (Hawes & Dadds, 2005), imperviousness to different parenting styles (Wootton et al., 1997), a preference for novel and dangerous activities and lower anxiety levels (Frick & Dickens, 2006), less reaction to punishment cues (Frick & Dickens, 2006), and fearlessness and a less inhibited temperament style (Dolan, 2004; Wootton et al., 1997; Frick & Morris, 2004).

*A proposed CU severity specifier*

The presence of callous-unemotional traits in youth has emerged as such an important topic in current research that there are recent attempts to have the construct added to the new edition of the DSM (DSM-5) as a severity specifier for conduct disorder (Frick & Moffitt, 2010). Frick and Moffitt suggest that a qualifier for callous-unemotional traits be added to the diagnosis of conduct disorder if the following criteria are met: 1) The individual meets the full diagnosis of conduct disorder; 2) The individual shows two or more of the following symptoms over the past 12 months; a) Lack of remorse or guilt: the individual does not feel bad or guilty when he/she does something wrong (except for expressing remorse when facing punishment); b) Callousness/lack of empathy: the individual disregards and/or is unconcerned with the feelings of others; c) Unconcerned about performance: the individual does not show concern about poor performance in school, work, etc.; and d) Shallow affect: the individual does not express feelings or show emotions to others except in ways that seem shallow or superficial or when they are used for gain (Frick & Moffitt, 2010). Frick and Moffitt suggest that including this CU severity specifier in the new edition of the DSM will help those with

conduct disorder receive treatment interventions that are tailored to their specific subgroup.

*Parental stress and negative affect*

Although there has been research on youth with callous-unemotional traits, youth with conduct disorder, and how these two are associated, there has been very little that looked at how these problem behaviors and potential emotional deficits affect the caregivers. One might assume that having a child who displays disruptive behavior could be a source of stress and a burden to the parent; therefore a child with these behaviors and a lack of emotional response, who is emotionally distant, and does not engage in play or reciprocation, would increase the negative emotions felt by the caregiver. It is predicted in this study that the caregivers of these two sub-groups will differ in terms of their emotional reactions and feelings towards the child because it is thought that the youth themselves are distinctly different.

There are studies that focus on how children deal with the stress of having a parent with a mental illness, but studies of how caregivers are affected by different types of psychopathology in their children have not been as prevalent. The studies that are currently available on parental stress and coping tend to deal with children who have a chronic illness such as cancer (Floyd & Gallagher, 1997), mental retardation (Floyd & Gallagher, 1997), Autistic Spectrum Disorder (Higgins, Bailey, & Pearce, 2005), and/or ADHD (Podolski & Nigg, 2001).

Deater-Deckard (1998) defined parental stress as “an aversive psychological reaction to the demands of being a parent,” in which parental stress is a “complex process linking (a) the task demands of parenting; (b) the parent’s psychological well-being and

behavior; (c) the qualities of the parent-child relationship; and (d) the child's psychosocial adjustment " (p. 315). Parenting is perceived to be more stressful for parents who have less knowledge, less perceived competence, fewer emotional supports, and when the parent views the child as being behaviorally difficult (Deater-Deckard, 1998). Parents of children with behavior problems express more negative emotions toward their children (e.g. anger, resentment), about their relationship with their child (e.g. hopelessness, fear of losing control, despair), and toward themselves as parents (e.g. blame and guilt), than parents with children without behavioral problems (Spitzer, Webster-Stratton, & Hollinsworth, 1991).

In addition to the emotions that parents feel when dealing with a child with conduct problems, chronic sorrow and burden are other constructs that have been investigated. Eakes (1995) defines chronic sorrow as a "pervasive sadness that is permanent, periodic, and potentially progressive in nature" (p. 78). Critical attributes of chronic sorrow are as follows: a perception of sorrow or sadness over time in a situation that has no predictable end; the sadness or sorrow is cyclic or recurrent; the sorrow or sadness is triggered either internally or externally and brings to mind the person's loss and fear; and the sadness is progressive and can intensify even years after the initial sense of loss (Eakes, 1995). One may infer that chronic sorrow closely resembles depressive symptoms which may also be characteristic of a caregiver with a mentally ill child.

Eakes conducted a qualitative study of 10 couples who were caring for a child with either bipolar disorder or schizophrenia, and counted specific citations of emotions during the sessions to better understand the emotions felt by these caregivers. Eight of the ten parents evidenced chronic sorrow. While various emotions such as sadness, grief, and

despair, were expressed, parents most often expressed anger (that this was happening to them), frustration (mainly with mental support services), and confusion (not understanding the disorder due to a lack of information provided by support services). The author explained that these emotions are expressed within the context of chronic grief and sorrow, which is often seen as inappropriate by those on the “outside.”

Eakes suggests that chronic sorrow is brought on by the unpredictable nature of mental illness. There is no end to the grief because mental illness can only be treated and not cured. The parent is periodically reminded that their child is not normal, in comparison to a relationship with a child without a mental illness. The burden of taking care of the child is a constant reminder of what has been lost and what the parent will never have. This sense of grief and loss could also be seen in parents with conduct disordered children because the parent does not have a normal relationship with their child. The parent is reminded of this when the child exhibits the problem behaviors. This can also be said of children with callous-unemotional traits (if not more so) since the parents relationship is hindered by the child’s lack of emotions, such as empathy, guilt, compassion, fear, and sadness.

Feelings of burden have also been associated with caring for a child or family member with a mental illness or psychopathology. Lefley (1997) identified three basic sources of familial burden: situational stress (arising from interactions with the mentally ill person); societal stress (negative attitudes on the part of others and perceived lack of support); and ‘iatrogenic’ stress (arising from inadequate or misinformed service providers). Goldberg-Arnold, Fristad, & Gavazzi (1999) suggest that caregiving itself

can be stressful, but even more so when taking care of a mentally ill person who is still living at home, which is the case with offspring. The authors go on to say,

In-home caregiving is associated with numerous crises and frequent disruptions to family life. In particular, for families raising children with mental illnesses, there is a continuing struggle to meet the needs of the whole family and to strike a balance between the ill family member's special needs and the needs of the other family members, especially siblings (p. 411).

Parental burden has been found to be higher among parents of children who meet the DSM-IV-TR criteria for one or more diagnoses with accompanying psychosocial impairment, which is the case for those with conduct disorder and callous-unemotional traits (Podolski & Nigg, 2001). In addition to the emotional burden that goes with caring for a mentally ill child, there are physical and monetary burdens as well (e.g. paying for mental health services, paying for the child when he/she gets into trouble, lost time at work.).

In a study by Podolski & Nigg (2001), the authors examined parental distress and coping in mothers and fathers of 66 children with ADHD, ages 7 to 11. Parents completed self reports to determine distress levels, and parents and teachers completed child ratings to determine ADHD levels and severity. The authors found that the child's conduct problems in public and instances of aggressive behaviors caused more stress for the caregiver than the symptoms of inattention (e.g. lack of concentration) and/or hyperactivity (e.g. constantly getting out of his/her seat during dinner).

Floyd & Gallagher (1997) conducted a study that looked at the differences between parental stress and care demands faced by parents with children who had a chronic illness or mental retardation. The authors also compared these samples with a

non-disabled behavior-problems sample. The data was obtained from 231 families; 112 families in the mental retardation group (ages 11-23), 73 families in the chronic illness group (ages 6-18), and 46 families in the non-disabled behavior-problems group. Parents completed a questionnaire which measured: parental stress, care demands of the child, support services used, and functioning of the child. The results suggested that the presence of behavior problems was generally more important than the type of disability or illness and was associated with a greater use of support services. Floyd & Gallagher stated,

The presence of child behavior problems was generally more important than the type of disability in determining most forms of stress experienced by the parents. This effect was found for measures of stress specifically related to the presence of difficult child behaviors and problems managing the child, as well as stress associated with disruption in activities and opportunities for other family members (p. 369).

Higgins, Bailey, & Pearce (2005) administered surveys to parents of children with an autistic spectrum disorder (ASD) to examine the relationship between ASD characteristics, family functioning, and coping strategies. The authors hypothesized that the primary caregivers of a child with ASD would report low marital happiness, low familial adaptability, low family cohesion, and low self-esteem. It was suggested that children with ASD contribute stress to their family as a result of the extremely disruptive behaviors that prohibit a normal family life, such as self-injury, obsessive-compulsive acts, and temper tantrums. The results showed that the caregivers acknowledged a high level of stress. The greatest concern of the parents was aggressive behaviors and misbehaviors in public. The authors state that, “having to cope with the physical and emotional demands of caring for a child with ASD poses a threat to the psychosocial



wellbeing of parents/caregivers. Their self-confidence and self-esteem can be eroded in the face of totally unfamiliar child behavior and unique demands” (p. 126).

*Stages of coping in a parent training program*

A common theme in these studies was that behavioral problems in the children, regardless of their affliction, were the main cause of parental stress. Spitzer, Webster-Stratton, & Hollinsworth (1991) investigated the process of parents learning to cope effectively with the stress of having a conduct disordered child by videotaping a parent training program. 77 mothers and 66 fathers of children with conduct problems, ages 3 to 7 years old, participated in the program. Transcripts of 20 intake interviews, 80 group therapy sessions, and 16 therapy consultations served as the data for the study. It was established through analyzing the transcripts that, overall, parents who apply to a clinic for help in dealing with children with conduct problems go through five stages, described as: 1) acknowledging the family’s problem, 2) alternating despair and hope, 3) tempering the dream, 4) making the shoe fit, and 5) coping effectively. The goal of the program is to help the parents get through each of these stages and learn that while there is no cure for CD it can be dealt with in a way that reduces stress for the parent and problem behaviors of the child (Webster-Stratton, 1991; Spitzer, Webster-Stratton, & Hollinsworth, 1991). The results of the qualitative analysis showed that the parents who reached the fifth phase, coping effectively, were more positive about their situation post-treatment than those in control families from a previous set of data. This last phase was made up of five categories: coming to terms with the hard work of parenting, respect and acceptance, refueling the parent, managing the anger and depression, and getting support.

However, this program did not take into account that there may be different types of conduct disordered children, specifically, those with and without callous-unemotional traits. Hawes and Dadds (2005) conducted a study examining the impact of CU traits on the effectiveness of a parent training program for the parents of CD children. A 10-week parent training intervention with 56 young boys with conduct problems (mean age = 6.3) was utilized. The Antisocial Process Screening Device was used to measure callous-unemotional traits in the sample. The results showed that both groups of children responded to the first portion of the treatment that concentrated on rewards, but that those high in callous-unemotional traits did not respond to the second portion, which focused on discipline. These results are consistent with the observation that youth with CU traits do not respond well to punishment cues and are less likely to change their behavior under the threat of discipline. Hawes and Dadds concluded that children with high levels of CU traits respond better to reward-based treatments and should have programs that are individualized to meet their unique disposition. It may not be that these kids are “untreatable,” rather that interventions are treating all conduct disordered youth with the same methods. Since it has been proposed that these subgroups do not respond in the same way to treatment, one may presume that caregivers of the subgroups would not progress through these stages in the same way, or even at all. If interventions are not correctly tailored to fit the specific needs of the child, the behaviors will continue and the caregiver will not achieve relief from the stress associated with the conduct problems.

Although the previously mentioned studies explored conduct disorder and other disruptive disorders in relation to parental distress, there are currently no studies that look at the experiences of the caregiver of a callous-unemotional child. Such a study is

important to pursue, as it contributes knowledge which may help improve future research. By comparing the experiences and emotional responses of the parents of both subgroups, the present study was designed to gain a better understanding of what these parents go through, in order to aid others in establishing interventions which take the unique differences of children with conduct disorder into consideration.

### *The effects of temperament*

While the study of parental stress and coping of caregivers with conduct disordered children is fairly new, research on temperament has been around for much longer. Various definitions exist for the construct of temperament, but for the purpose of this study, temperament is defined as “constitutionally based individual differences in reactivity and self-regulation, influenced over time by heredity and experience” (Putnam, Ellis, & Rothbart, 2001, p. 165). Reactivity refers to motor, emotional, and attentional responses to internal and external stimuli, and self-regulation refers to processes that serve to modulate reactivity, including approach/withdrawal, inhibitory control, and self-regulation (effortful control) of attention. There are different types of temperament within early childhood; however, for this study only theories regarding temperamental styles related to subgroups of CD are considered.

The New York Longitudinal Survey (Chess & Thomas, 1984; Thomas & Chess, 1977; Cowen, Wyman, & Work, 1992) was an extensive study of temperament, during which thousands of infants were classified into several different temperament types; the three broad temperament types were as follows: easy, difficult, and slow to warm up. The authors found that indicators of difficult temperament in early childhood predicted emotional and behavioral problems in later childhood and adolescence, and also

maladjustment and/or disorders in adulthood (Cowen, Wyman, & Work, 1992). A tendency to display intense negative emotions is an important aspect of the difficult temperament that has been linked to the development of conduct problems in past studies (Frick & Morris, 2004). Based on this research, failure of the child to develop adequate emotional regulatory abilities could be a critical factor in the development of conduct problems.

Research has consistently related conduct problems to high levels of negative emotional reactivity, including negative emotions such as, fear, anxiety, irritability, frustration, and sadness (Frick & Morris, 2004). This type of temperament is likely to show reactive aggression as well as internalizing problems (e.g. depression, anxiety disorders). However, there are other types of conduct problems that are less associated with negative affect and more associated with deficits in conscience development. These children exhibit CU traits and show a temperament distinguished by low autonomic reactivity, low levels of fearfulness, and impairment in guilt, empathy, and other aspects of conscience (Frick & Morris, 2004).

Frick and Morris (2004) suggested a “dual-pathway model” for the development of severe conduct problems. The callous-unemotional subgroup shows low fear and low behavioral inhibition while those without callous-unemotional traits show high emotional reactivity and low effortful control (self-regulation). Fowles & Dindo (2009) also theorized the existence of a dual-pathway model in the emergence of psychopathic traits, characterized by either low-fear temperament or regulatory dyscontrol. In this theory, based on a review of previous research on topics such as startle modulation and fear imagery, low fear temperament was only associated with CU traits. The authors

suggested that this implies that behavioral traits associated with regulatory dyscontrol have a separate etiological process. Both theory and experimental results give evidence that these youth should be divided into separate groups (Fowles & Dindo, 2009; Fowles & Kochanska, 2000). The current study further explores this topic by assessing temperament through parental report. This allows for an insight into the temperament of a CU child and how this may or may not affect the caregiver.

Theories suggest that fearless children have a lack of emotional attachment and a lack of empathy, which are characteristics of CU traits that are distinctive of psychopaths in adulthood (Saltaris, 2002; Kochanska, 1993). Based on the above theories, the present study explores the temperamental differences between two subgroups of conduct disorder, those high in CU traits and those low in CU traits. If, for example, it is established that children high in CU traits score lower on a measure of negative affect (e.g. anxiety, depression), it will support the assumption that the development of CD is different for each of the subgroups. The relationship between temperamental differences and differences in the emotional well-being of the caregivers of the two subgroups of children was also investigated. For example, if a child had a difficult temperament, yet expressed emotions in a normal and genuine capacity, the parent may feel less of a burden than a parent whose child shows a fearless, unresponsive, and callous temperament.

#### Specific Aims:

The aim of the current research was to qualitatively explore the coping strategies and emotional responses of the caregivers of subgroups of youth with conduct disorder. The two subgroups of children consist of conduct disordered youth with callous-

unemotional traits and conduct disordered youth without callous-unemotional traits. The main purpose of the study was to further current knowledge of caregivers of children with conduct problems. Also, to explore how the caregivers respond to, and cope with, the child's behaviors, and how this might differ between the two subgroups of caregivers. This knowledge could lead to the development of more effective interventions for professionals to use.

The research question for this study was as follows: How do caregivers of subgroups of children with conduct disorder, specifically those with CU traits and those without, differ in terms of expressions of negative emotions (e.g. anger, fear, shame, hopelessness, anxiety), and strategies used to cope with their child's problem behavior? The main hypothesis will be that the caregivers of children in the CU subgroup will express emotions, experiences, and coping skills that are different than those of caregivers of children in the CD subgroup. As a secondary interest, temperament of the youth in toddlerhood as reported by the caregiver will be measured to examine how temperamental traits may contribute to the different emotions and experiences of each caregiver.

Specifically, there were three hypotheses: (a) The caregivers of youth with CU traits will have experienced more negative emotions towards parenting, themselves, their futures, and their relationships with their child than parents of the children with CD only; (b ) The caregivers of youth with CU traits will have utilized more diverse methods of coping, both personal and outside of the family, with the problem behavior than caregivers of youth with CD only; and ( c ) The caregivers of youth with CD only will report more instances of negative emotions and effortful control in their children during

toddlerhood. The purpose of exploring the temperament of each participant's child via parent assessment was to allow for a better understanding of how the caregivers view their children and their relationship with their children.

### Method:

#### *Design*

The proposed research was reviewed and approved by the Rutgers University Institutional Review Board. It was an exploratory, qualitative analysis of how caregivers deal with the stress of having a conduct disordered child. Caregivers of children with severe conduct problems were selected based on whether or not their child met the DSM-IV-TR criteria for conduct disorder as determined by members of a child study team (therapists, child psychologists, etc.) or the directors of a non-profit agency. Once the participants were selected, the parents were administered a measure to determine the level of callous-unemotional traits that the child exhibited. The results of this measurement determined which group the participant was in.

#### *Participants*

Participants in this study were the primary caregiver of a youth with severe conduct problems, with a child ranging in age from 6 to 17 years old (across elementary, middle, and high school grades). Participants were recruited from five agencies, a public school and four local branches of volunteer-led family support organizations. Participants were selected by the referring agency based on the DSM-IV-TR criteria for conduct disorder (see Appendix A). The agencies utilized a checklist based on DSM-IV-TR criteria to select the participants (see Appendix B). The participant's child had to meet the criteria for the diagnosis of conduct disorder, but the child did not have to have the

formal diagnosis in order to qualify for the study. This was due to the possibility that a child with these symptoms may never have been diagnosed or may have been diagnosed incorrectly. One case was excluded because the child had an Autistic Spectrum Disorder (ASD), which can mimic certain symptoms of conduct disorder such as lack of empathy and guilt. Some of the youth in this study, especially the older ones, tended to have a long history of contacts with mental health agencies and had received a variety of diagnoses. Multiple diagnoses did not exclude the parent from the study, as long as the alternate disorder/diagnosis did not represent a viable alternative explanation for the child's behavior. Whether or not this was the case was a judgment made by the primary investigator, thesis advisor, and the director of the referring agency.

Once deemed appropriate for the study, the caregiver was sent a letter by the agency (see Appendix C; Collingswood Public Schools only), contacted via phone, or asked in person by the agency to participate in the study. Those who consented to participate were compensated for their time in the amount of \$20.00 (see Appendix D, Consent Form; and Appendix E, Audio/Videotape Addendum Consent Form). A sample of 20 participants was utilized.

### *Independent Variable*

The independent variable in this study was the presence or relative absence of callous-unemotional traits in the participant's child (e.g. lack of remorse, lack of guilt, shallow affect). The group with callous-unemotional traits was formed on the basis of the criteria for Frick and Moffitt's (2010) proposed severity specifier. The Inventory of Callous-Unemotional Traits (ICU; see Appendix F) was utilized to assess the severity of CU traits of each caregiver's child.



The ICU was developed by Frick (Kimonis, Frick, Skeem, Marsee, Cruise, Munoz, Aucoin, & Morris, 2008; Frick, Bodin, & Barry, 2000; Stickle, Kirkpatrick, & Brush, 2009) to overcome the limitations of the Antisocial Process Screening Device (APSD), formerly known as the Psychopathy Screening Device (PSD). The APSD is a 3-point, 20-item measure, available in teacher, parent, and self-report forms and is used with youth ages 6 years to 18 years. The APSD measures three factors: callous-unemotional, narcissism, and impulsivity (Dadds et al., 2005; Kotler & McMahon, 2005). However, there are several limitations with using the APSD to assess CU traits. First, only 6 of the 20 items in the APSD measure callous-unemotional traits, which makes it difficult to determine if the scores reflect actual psychopathology (Kimonis et al., 2008, p. 242). Second, items on the APSD are limited to a three-point Likert scale. One criticism of this measure is that the format restricts the range and variability of scores. Frick formulated the ICU in an attempt to overcome these limitations.

Four items from the callous-unemotional scale of the APSD that consistently loaded on the CU dimension were used to create the ICU (Frick, Bodin, & Barry, 2000; Stickle, Kirkpatrick, & Brush, 2009). For each of the four items, three positively and three negatively worded items were generated for a total of 24 items. The 24 items were submitted to a confirmatory factor analysis, which showed a three-factor structure: Callousness, Uncaring, and Unemotional (Kimonis et al., 2008; Stickle, Kirkpatrick, & Brush, 2009). Questions from the three factors of the parent version of the ICU include: 1) Callousness- Does not care who he/she hurts to get what he/she wants, Is concerned about the feelings of others (Reversed); 2) Uncaring- Always tries his/her best (Reversed), Feels bad or guilty when he/she does something wrong (reversed); 3)

Unemotional- Expresses his/her feelings openly (Reversed), Hides his/her feelings from others.

The ICU items are rated on a 4-point Likert scale: 0 (not at all true), 1 (somewhat true), 2 (very true), and 3 (definitely true). Although the ICU is currently unpublished, several studies have utilized the measure and validated its efficacy. Essau, Sasagawa, and Frick (2006) conducted a study using 1443 German youth, ranging in age from 13 years to 18 years, in order to determine the psychometric properties of the ICU. The authors' findings supported the utility of the ICU as a measure of CU traits through a factor analysis that validated the three-factor structure (Stickle, Kirkpatrick, & Brush, 2009; Kostas, Frick, & Georgiou, 2009; Kimonis et al., 2008; Roose et al., 2009). The results showed that the ICU is adequate for both males and females, has adequate internal consistency ( $\alpha = .77$ ; Roose et al., 2009), and moderate construct validity, which means that the ICU was supported by concurrent assessments using the Big 5 personality dimensions (Essau, Sasagawa, & Frick, 2006; Roose et al., 2009; Kimonis et al., 2008). Other validation studies found the scale: was useful across multiple cultures (Stickle, Kirkpatrick, & Brush, 2009; Kostas, Frick, & Georgiou, 2009; Essau, Sasagawa, & Frick, 2006; Kimonis et al., 2008; Roose et al., 2009), was useful for assessing both males and females (Kimonis et al., 2008), had good criterion validity, examined through associations with antisocial and prosocial beliefs (Roose et al., 2009), and had good convergent validity (strong positive associations with the Antisocial Personality Screening Device; Roose et al., 2009).

To evaluate the CU severity specifier, Frick and Moffitt (2010) created a modified version of the ICU (shown in Appendix F). Four items from the original ICU were

removed and items from the APSD were substituted. The substituted items were chosen to assess the same trait as the original, but because of the wording, the substituted items performed better in terms of factor loadings from the factor analysis. For example the item, “I express feelings openly” (inversely scored) loaded more consistently on the unemotional factor than, “I do not show emotions to others.” The item, “I always try my best” showed higher loadings on the general callous-unemotional factor than the original, “I care about how well I do at school or work.”

The items included in the modified ICU have also been analyzed. Frick and Moffitt (2010) conducted multiple factor analyses which resulted in a 4-factor structure. The four factors of the CU severity specifier are as follows: a) Lack of remorse or guilt: the individual does not feel bad or guilty when he/she does something wrong (except for expressing remorse when facing punishment); b) Callousness/lack of empathy: the individual disregards and/or is unconcerned with the feelings of others; c) Unconcerned about performance: the individual does not show concern about poor performance in school, work, etc.; and d) Shallow affect: the individual does not express feelings or show emotions to others except in ways that seem shallow or superficial or when they are used for gain (Frick & Moffitt, 2010). A confirmatory factor analysis validated the use of these factors as a way to detect the presence of significant callous-unemotional traits in youth. In addition, there was good internal consistency, and good predictive validity (Frick & Moffitt, 2010).

There are no published means for the modified version of the ICU. Although not precisely the same scale as the original, data from the original ICU were used in the present study to provide normative information for the modified version. This seemed

reasonable because: the modified ICU also consisted of 24 items, 20 of which were the same as those from the original; the four items from the APSD which were substituted were drawn from the same domain as those that were removed; and the response format was the same in both cases.

Frick and Moffitt's severity specifier was used to classify the CU cases in the present study. To do this, items from the modified ICU were rated by the caregiver and separated into the four categories of callous-unemotional traits described above (see Appendix F). The caregiver was placed in the CU group if the child showed two or more of the following traits over the past 12 months: lack of remorse/guilt; lack of empathy/callousness; and shallow affect (see Appendix F for scoring). A fourth factor included in Frick and Moffitt's criteria, unconcerned about performance, was not used to determine whether the participant was in the CU or CD group. This decision was made because this factor did not discriminate between the two groups; 17 out of 20 children met the criteria for this factor due to the child's poor performance in school.

A few items were added to the ICU for informational purposes. The items asked about factors such as fearlessness, lack of anxiety, and narcissism. Examples of these items are: Does not seem afraid when another child might; seldom shows signs of anxiety or worry; exhibits focused and planned aggression; uses excuses that are obviously made up at that moment. These 21 items were added specifically because current literature has not fully explored these areas with this population, and these items were not covered on the ICU (see Appendix F, items 25 through 45).

### *Dependent Variables*

The dependent variables in this study were: a) the caregiver's expression of negative emotions; b) personal coping strategies used and community resources relied upon; and c) reported temperament of the caregiver's child in toddlerhood. These variables were assessed using questionnaires and a semi-structured interview.

Instances of negative emotions experienced by the caregiver were assessed through a questionnaire and during the semi-structured interview. Example questions from the interview are as follows: What were your feelings toward your child and your relationship with your child? How do you feel when you think about the future? During this time, how did you feel about yourself as a parent? An outline of the interview is given in Appendix G. The Depression Anxiety Stress Scales (DASS; Lovibond & Lovibond, 1995; Appendix H) was administered in order to evaluate the negative emotions experienced by the caregiver. Three scales from this instrument assessed the caregiver's symptoms of anxiety, depression, and stress, allowing for a better understanding across participants when coupled with the caregiver's answers to the interview questions.

The DASS can be administered in either a standard or short version. The standard or full version is comprised of 42 negative emotional symptoms and asks the subject to rate his/her symptoms over the past week on a 4-point severity scale: 0 (did not apply to me at all); 1 (applied to me to some degree, or some of the time); 2 (applied to me a considerable degree, or a good part of the time); 3 (applied to me very much, or most of the time). The short version is comprised of 21 items and covers the same three

dimensions as the full version but does not take as much time to complete. For this reason the current study utilized the short version.

The Depression scale of the DASS measures: dysphoria, hopelessness, devaluation of life, self-deprecation, lack of interest/involvement, anhedonia, and inertia. The Anxiety scale measures: autonomic arousal, skeletal musculature effects, situational anxiety, and subjective experience of anxious affect. The Stress scale measures: difficulty relaxing, nervous arousal, easily upset/agitated, irritable/over-reacting, and impatient.

Several studies have used the DASS to investigate parental distress, as well as the psychometric properties of the scales. In a study by Lovibond & Lovibond (1995), the psychometric properties of the full version of the DASS were tested against the Beck Depression and Anxiety inventories with a convenience sample of undergraduate students, to examine the convergent validity of the scales. Results of the comparisons showed that the DASS depression and anxiety scales had high convergent and discriminant validity, as well as high internal consistency ( $\alpha = .88$  for DASS anxiety;  $\alpha = .91$  for DASS depression) and a validated 3-factor model. Other studies using the full version of the DASS have reported the following: high reliability (Bor, Sanders, & Markie-Dadds, 2002); good discriminant validity (Bor, Sanders, & Markie-Dadds, 2002; Lovibond & Lovibond, 1995; Brown, Chorpita, Korotitsch, & Barlow, 1997); high internal consistency (Lovibond & Lovibond, 1995; Brown, et al., 1997); good temporal stability (Brown et al., 1997); and high convergent validity (Brown et al., 1997).

The short version of the DASS has also been investigated, and it has been found that although there are fewer items, it is as psychometrically sound as the full version. Henry and Crawford (2005) conducted a study to test the construct validity of the short

version of the scale (DASS-21) and to provide normative data for the general adult population. Henry and Crawford concluded that the short form shows adequate construct validity, a validated 3-factor structure, scales with high reliabilities, and it omits items from the full version that were previously identified as problematic. The DASS-21 uses the same four-point response format as the full version. The scores for each factor are summed and then multiplied by two. The DASS score is then put into the following category: normal (0-9 depression; 0-7 anxiety; 0-14 stress), mild (10-13 depression; 8-9 anxiety; 15-18 stress), moderate (14-20 depression; 10-14 anxiety; 19-25 stress), severe (21-27 depression; 15-19 anxiety; 26-33 stress), and extremely severe (28+ depression; 20+ anxiety; 34 stress).

The second dependent variable, coping skills/interventions (both personal and outside of the family), was assessed using questions from the semi-structured interview. The interview transcripts were reviewed to identify statements dealing with the ways in which the respondent coped with their situation. The purpose of asking these questions was to better understand how a caregiver deals with having a child with severe conduct problems and emotional deficits. Examples of questions that were used to measure this variable were as follows: How did you cope with the stress of the problem behavior? Did you seek any mental health services for you or your child?

Lastly, temperament of the youth in toddlerhood was measured retrospectively using the parent version of the Early Childhood Behavior Questionnaire-Very Short Form (ECBQ; Putman & Rothbart, 2006; see Appendix I). The purpose of investigating the temperament of the child was to better understand temperamental differences between the sub-groups of children, and to examine whether the characteristics of the child

contributed to the other variables (e.g. negative emotions of the caregiver, or coping/interventions). The ECBQ measures temperament of children ages 18-36 months, and was designed to supplement the Toddler Behavior Assessment Questionnaire (Goldsmith, 1996). Putnam and Rothbart (2006) propose a fine-grained, temporally differentiated approach to temperament which allows for greater specificity than broader models in predicting and assessing relations between temperament and other constructs.

The ECBQ is an extension of the Infant Behavior Questionnaire (IBQ) and the Child Behavior Questionnaire (CBQ; Putnam, Ellis, & Rothbart, 2001; Putnam, Garstein, & Rothbart, 2006). The standard version of the ECBQ includes 201 items rated on a 7-point Likert scale (1-never, 2-very rarely, 3- less than half of the time, 4- about half of the time, 5 more than half of the time, 6 almost always, 7 always). The items are grouped into 18 scales, which are as follows: activity level, cuddliness, attention/duration of orienting, attentional shifting, discomfort, fear, frustration/distress to limitations, high intensity pleasure, low intensity pleasure, impulsivity, inhibitory control, motor activation, perceptual sensitivity, perceptual sensitivity/positive anticipation, sadness, shyness, smiling and laughter, sociability, and soothability (Putnam, Ellis, & Rothbart, 2001).

The 18 scales loaded consistently onto a three-factor structure of Surgency, Negative Affect, and Effortful Control, which are thought to be found at all ages after toddlerhood and persist well into adulthood (Putnam, Rothbart, & Ellis, 2001). This study used the “very short” parent form of the ECBQ for its brevity. The very short form measures the three main factors mentioned above, but has only 36 items (Putnam, Ellis, & Rothbart, 2001). Each of the three factors is measured by 12 items. The items are



added to form a total score for each factor. The total score is then divided by 12 (minus the number of items omitted) for a mean score ranging from 0-7. Sample items from the ECBQ are as follows: 1) Negative Affect- While in a public place, how often did your child seem afraid of large, noisy vehicles? When s/he asked for something and you said “no,” how often did your child have a temper tantrum?; 2) Surgency- When a familiar child came to your home, how often did your child seek out the company of the child? When encountering a new activity, how often did your child get involved immediately?; 3) Effortful Control- When told “no,” how often did your child stop the forbidden activity? When engaged in play with his/her favorite toy, how often did your child play for more than 10 minutes?

With regard to the three-factor structure, Surgency refers to extraversion, whereas Negative Affect refers to experiencing or exhibiting negative emotions such as, sadness, fear, and anxiety. Effortful control refers to one’s ability to utilize attentional resources and inhibit behavioral responses to regulate behaviors and emotions (Frick & Morris, 2004, Rothbart, 2005). Rothbart (2005) suggested that Surgency/extraversion and low effortful control are linked to the development of conduct problems, and also that effortful control is related to children’s compliance, as well as their development of empathy, guilt, and shame. In a study conducted by Putnam, Garstein, and Rothbart (2006) the standard form of the ECBQ was tested on 421 infants ages 18- 24- 30- and 36-months to examine the psychometric properties. The authors found that the 18 scales were internally consistent, had good inter-rater reliability, fit the 3-factor model, and were stable across early childhood (Putnam, Garstein, & Rothbart, 2006). For the

purposes of this study, the grand mean for each factor combined across the four age groups was used as normative data to interpret the results.

The original instructions for the ECBQ asked the parent to rate how often that particular behavior occurred within the last two weeks (Putnam, Garstein, & Rothbart, 2006). The instructions were modified to fit the design of the research. Parents were asked to rate the items based on their child's behaviors in toddlerhood (ages 1 ½ to 3 years old). To aid the parent in correctly remembering this age range, anchor questions asking the parent to report an event at each age (1 ½ and 3) were used.

Asking parents to describe the temperament and behaviors of his/her child retrospectively may be criticized as being a limitation of the current design. Evidence suggests that retrospective reports may be reliable sources of information. Cowen, Wyman, and Work (1992), retrospectively assessed the temperament of 131 highly stressed 10 and 12 year old urban children using parental report. The youth were assessed at the infancy period (ages 0-2) and at the preschool period (ages 2-5). The parent's retrospective assessment of both periods correlated substantially. The findings showed that retrospective parent reports were meaningful sources of information about temperament in early childhood. In addition, parents view their children in a wide range of settings that are ethically and logistically impossible to recreate in a lab setting, giving them more information than any other observer (Putnam, Ellis, & Rothbart, 2001). While it may be less than ideal, the current research study had to utilize this type of assessment to collect information regarding temperament.

### *Procedures*

To familiarize them with the type of cases that were to be selected, the agencies were given the criteria for conduct disorder from DSM-IV-TR (see Appendix A). Participants were selected by the referring agency based on a screening checklist (see Appendix B). The checklist criteria included the following: age range for participant's child (age 6-17), absence of Autistic Spectrum Disorder (ASD), and meets the DSM-IV-TR criteria for conduct disorder. Cases were selected based on the criteria provided, relying on the expertise of the child study team, and the professional and personal experience of the directors of the family support organizations.

Caregivers of children who were thought to meet the criteria of the study were contacted via letter, phone call, or in person by the agency, informing him/her of the study. Those who signed and returned the letter to the agency, or verbally consented to participate, had their name and phone number released to the experimenter, who contacted them. Most interviews were conducted at the agency because of the sense of familiarity and comfort for the caregiver.

At the beginning of the meeting, the parent read and signed the consent form. Participation was voluntary and the caregiver was informed that they could drop out of the study at any time without penalty. Compensation in the amount of \$20.00 was given if the participant showed up for the interview, and was given whether or not they completed the interview. However, none of the participants dropped out of the study. The caregiver completed the modified Inventory of Callous-Unemotional Traits, the DASS-21, and the Early Childhood Behavior Questionnaire-Very Short Form. Completing these measures took approximately 30-45 minutes.

Once the caregiver completed the questionnaires, the caregiver signed the consent form to allow the interview to be recorded (see Appendix E). Once this was completed, the interview began. The ICU and two questionnaires, the DASS-21 and the ECBQ-Very Short Form, were not scored until after the interview was completed. The interviewer did not know during the interview to which group the child belonged. The questions asked during the interview were based on a guide for a semi-structured interview (see Appendix G), allowing for alterations based on the answers of the participant. Caregivers were told that this study was not a type of treatment for the participant or the child; rather, it was an opportunity to discuss experiences and emotions connected with having a child with problem behaviors.

Afterward, the caregiver completed a demographic information questionnaire (see Appendix J) , which asked for information about the caregiver such as, race, gender, occupation, marital status, and household income, and questions asking for information about the child including, age, gender, race, and number of siblings. Finally, the participant had the opportunity to ask questions, and was paid for his/her participation. Observations were recorded by the interviewer after the completion of the interview. The recorded interviews were later transcribed, reviewed for accuracy, and identifying information was removed. Copies of the interview transcripts are available upon request.

### Results:

Twenty caregivers were interviewed and given questionnaires to assess the variables of interest. Twelve met the criteria for having a child with conduct disorder with callous-unemotional (CU) traits; eight met the criteria for having a child with conduct disorder (CD) only.

All but one of the informants was female. The mean age of the informants was 43.4 years ( $sd = 7.2$ ). The CD group was significantly older than the CU group:  $M_{CD} = 47.5$  ( $sd = 6.2$ ),  $M_{CU} = 40.75$  ( $sd = 6.7$ ),  $t_{(18)} = 2.267$ ,  $p = .036$ . There were no differences between CU and CD groups for Occupation, Marital Status, Race, Relationship with the child, or Source of Referral. These data are summarized in Appendix K, Tables K1 through K5. The frequency data for Education was too sparse to test, but there was a trend for the CD group to have higher levels of education than the CU group (see Table K6). The mean household income did not differ between the two groups. For the total group, the mean (in thousands) = \$54 ( $sd = \$3.0$ ). The median income was \$49, with a range from \$8.463 to \$125 (in thousands). One mother did not have legal custody of her child and only saw the child occasionally.

There were 13 male and 7 female children. The mean age of the children was 13.75 years ( $sd = 2.95$  years). The ages ranged from 7 to 17 years. The mean age of onset of the disturbed behavior, as reported by the parent or caregiver, was 5.13 years, ( $sd = 3.65$  years). Each child had a mean of 2.65 siblings ( $sd = 1.9$ ), with a range from zero to six. There was no difference between the groups for the child's Gender, Age, Age of Onset, Number of Siblings, or Race. Categorical data for gender and race are summarized in Tables K7 and K8.

The two groups of caregivers did not differ in terms of their reported level of stress, depression, or anxiety. The means for the three scales from the DASS-21 for the total group are shown in Table 1.

Table 1  
Means and Standard Deviations for DASS-21 Scales

<u>Scale</u>	Mean	sd	Reference <sup>1</sup> Mean	Reference sd	z-value
Depression	12.95	12.25	2.83	3.87	2.61
Anxiety	9.00	8.04	1.88	2.95	2.41
Stress	19.40	11.37	4.73	4.2	3.49

<sup>1</sup> Reference data from Henry and Crawford (2005), 1794 normal Australian adults recruited from a variety of community sources.

Although the CU and CD groups did not differ in terms of their mean score on any of the three DASS scales, as a whole this group of parents is significantly more disturbed than average. Reference means for the DASS scales reported by Henry and Crawford (2005) for a sample of 1794 normal Australian adults are shown in Table 1. Converting the sample means to z-score equivalents resulted in the z-values, all of them positive and greater than 2.0, shown in the last column. The DASS scoring instructions divide the scores for each scale into the following categories: normal (0-9 depression; 0-7 anxiety; 0-14 stress), mild (10-13 depression; 8-9 anxiety; 15-18 stress), moderate (14-20 depression; 10-14 anxiety; 19-25 stress), severe (21-27 depression; 15-19 anxiety; 26-33 stress), and extremely severe (28+ depression; 20+ anxiety; 34 stress). The mean DASS scores seen in Table 1 classified this sample as “mildly depressed,” “mildly anxious,” and “moderately stressed.”

Participant 015 from the CU group, scored high on the DASS with individual z-values as follows: Depression: 8.05; Anxiety: 4.79; Stress: 5.54. When asked about her experiences as a parent she responded with the following:

I was getting calls from the school almost every day to come pick him up. I was on the verge of getting fired. I

couldn't go to work and leave him home because he couldn't be trusted. But, he was kind of too old to have a babysitter. His therapy, he wasn't responding to any of his therapy sessions. He was very introverted. He would just, shut down and not say anything. So I couldn't even get through to him to help him. Broken windows, holes in the wall; I just packed him up. I just couldn't do it anymore. I wanted to find him a place to go live.

Participant 017 from the CD group also scored high on the DASS scales with individual z-values as follows: Depression: 2.89; Anxiety: 4.79; Stress: 3.64. When asked what specific behaviors have been especially difficult to deal with, the participant answered with the following:

Wanting to be out in the streets. I think she might be, actually wants to join a gang. But just recently, two weeks ago, my son got killed. Shot in the face in the streets. And hopefully, I was hoping \_\_\_\_ would kind of get a grip on it, knowing that the streets aren't for you. That's what happened out in the streets. So I'm hoping that. But no, she has no, she ain't show no feeling, no emotion, no nothing about it. Like ok, and that right there is sad. It's breaking my heart because now I'm scared. Because if that didn't wake you up I don't know what will, so I don't know.

In comparison, there were caregivers from both groups who had low scores on the three DASS scales. Participant 002 from the CU group scored low on two of the three scales of the DASS with individual z-values as follows: Depression: 1.85; Anxiety: 0.72; Stress:

4.11. stated the following when asked to describe a particularly difficult event:

And just recently, \_\_\_\_ became overly aggressive because I told him he wasn't allowed to do something, he did it anyway and he was reprimanded for it, and he became aggressive enough that he actually came and pushed me. He came after me physically. You know, and that's hard to deal with because I don't want to become physically aggressive with him, but sometimes I actually have to become physical, because if not he could seriously hurt me, or himself, you know? And at that point we just basically pin \_\_\_\_ to the floor. You have to kind of trip him and get

him to the floor somehow and just pin him there until he calms down.

Participant 018, from the CD group, also had low scores on the DASS with individual z-values as follows: Depression: 0.30; Anxiety: 0.04; Stress: 2.21. She describes how she dealt with parenting in the following:

Like this is our life now, I'm not expecting it, I know it's not going to get fixed. It might get better, it might get worse, you know. I don't, I don't delude myself to the fact that she's never going to be hospitalized again or any of those things. So I just, I just try to focus on other positive things that are just going on in general, like in the family, in work, with my son, even with her when something positive is going on. You know, we just move forward and continue our routine...

Mean scores for the three temperament scales from the ECBQ are shown in Table

2. For Surgency, the mean for the CD group was significantly higher than the mean for the CU group ( $t_{(18)} = 2.52$ ,  $p = 0.02$ ). For Negative Affect, there was a trend for the mean for the CU group to be higher than the mean for the CD group ( $t_{(18)} = 1.53$ ,  $p = 0.14$ ).

Table 2

Group Means and Standard Deviations for ECBQ Scales

Scale	CU Group		CD Group <sup>1</sup>		Total Group		Reference <sup>2</sup>	Reference	z-value
	Mean	sd	Mean	sd	Mean	sd	Mean	sd	
Negative Affect	4.35	1.19	3.48	1.32	4.0	1.29	3.96	0.49	0.08
Surgency	4.30	1.21	5.55	0.85	4.80	1.23	3.69	0.46	2.43
Effortful Control	3.71	1.06	3.83	1.06	3.76	1.14	3.87	0.48	0.23

<sup>1</sup> The means for CU/CD groups for Surgency were significantly different, ( $t_{(18)} = 2.52$ ,  $p = 0.02$ ). The means for Negative Affect showed a trend toward significance, ( $t_{(18)} = 1.53$ ,  $p = 0.14$ ).

<sup>2</sup> Putnam, Garstein, and Rothbart (2006). Data for 104 normal children, rated by parents recruited from the Eugene-Springfield, Oregon area. Data for the four age groups combined were supplied by Putnam (personal communication).



The Reference Mean column of Table 2 shows the short-form ECBQ scale means for the four age groups combined (18- 24- 30- and 36-months), corresponding to the request of the caretakers to rate the child for temperament during “toddlerhood, ages 1½ to 3.” The reference means and standard deviations shown in Table 2 were supplied by Putnam (personal communication). Except for Surgency, the means for children in this sample were close to those in the normative group. The data showed that children in this sample were significantly more active and extraverted as toddlers than the children in Putnam’s normative sample.

Although not significant, there was a trend for the CU children to score higher on the Negative Affect scale than the CD children. This was contradictory to what was hypothesized. As the Negative Affect scale encompasses multiple negative emotions (e.g. anger, fear, sadness), the items were analyzed separately. Once the items were ranked using a standardized d-measure, four items (item #1, 22, 23, 26) were found to show the largest difference between the two groups (Appendix L). Of the four items, two focused on fear and two focused on sadness. The CU children were rated higher than the CD children on all four of these items. The items were as follows: When approached by an unfamiliar person in a public place (for example, the grocery store), how often did your child cling to a parent?; when told “no,” how often did your child become sadly tearful?; following an exciting activity or event, how often did your child seem to feel down or blue?; and when s/he asked for something and you said “no,” how often did your child have a temper tantrum?

A selection from the interview with participant 011, from the CU group, illustrates the temperament of a child who scored high on the Negative Affect scale on the ECBQ ( $z = 2.63$ ):

You know he really cried a lot when I would pick him up from daycare to put him in the van and transition him back home, he would cry forever... He was very attached. Because I was single, a single mom with him for the first 8 months. The whole pregnancy I was by myself and when he was 8 months old is when I met my husband now. Um, he was very attached. I remember I couldn't get a babysitter because he would cry and cry and cry and cry.

Table 3 shows the correlations among the six scales. Positive correlations among the three DASS scales indicate that all forms of stress reported on these scales tended to vary together. The correlations among the ECBQ scales were near zero. ECBQ Negative Affect reported during toddlerhood was correlated with the respondent's current level of Anxiety ( $r = .57, p = .009$ ) and Stress ( $r = .34, p = .09$ ) on the DASS.

Table 3

Correlations (p-level) Among DASS and ECBQ Scales

	Depression Surgency	Anxiety	Stress	Negative Affect	
<u>DASS Scales</u>					
Depression					
Anxiety	.41 (.07)				
Stress	.81 (<.001)	.61 (.005)			
<u>ECBQ Scales</u>					
Negative Affect	.18	.57 (.009)	.34 (.09)		
Surgency	-.006	.00	.01	-.09	
Effortful Control	-.04	-.31	.03	-.40 (.08)	.32

Correlations between the DASS and ECBQ scales and several of the demographic variables are shown in Table 4.

The older the child, the less anxiety reported by the respondent on the DASS. Older children are reported as having had less negative affect as toddlers. Older informants express less (current) anxiety and stress. Older informants report their children had less negative affect as toddlers. The later the age of onset, the less anxiety the informant expresses currently. Children with later onset are reported as having shown less negative affect and greater capacity for effortful control as toddlers. Since all of these ratings were made by the informants on the same occasion, it suggests that as the child and the informant get older, the situation with the child becomes more manageable and less stressful for informant. This effect may color, in a positive direction, retrospective ratings of the child at an earlier age. As noted below, the ICU-total score is also negatively correlated with the informant's age.

Table 4

Correlations (p-level) Between DASS and ECBQ Scales and Demographic Variables

	Child Age	Informant Age	Number Siblings	Age of Onset	Household Income
Depression	-.07	-.29	-.22	.09	-.22
Anxiety	-.43 (.057)	-.47 (.036)	-.07	-.48 (.031)	.04
Stress	-.05	-.38 (.101)	-.19	.10	.03
Negative Affect	-.38 (.099)	-.52 (.019)	-.05	-.54 (.014)	-.15
Surgency	.15	.16	.30	-.04	-.28
Effortful Control	.22	.28	.64 (.002)	.68 (.001)	.04

Since only one of the respondents was male, the interview transcripts were scanned for mention of fathers, and these references were classified as to whether or not the father continued to be involved in the child's life. The father's role was not explicitly questioned during the interview; not all of the respondents mentioned the father. The responses are summarized in Table K9. There was no apparent difference between the CD and CU groups. In several cases the child seemed to wish for a more positive relationship with their father, but the father was withdrawn or absent.

Medications prescribed for the child were mentioned in 15 of the interviews. The scheme for classifying references to medication is shown in Table K10. Again, there was no apparent difference between the two groups. Several respondents noted either that the child refused to take medication, or that the medication made them worse. Often when this occurred the medications had to be changed or discontinued.

Negative emotions mentioned by the caregiver were classified according to the system shown in Table 5.

Table 5

Negative Emotions Expressed by the Caregiver by Group

	Anger	Sadness	Fear	Confused/Surprise	Contempt	Shame/Guilt	Stress/Anxiety
CD	5	5	6	4	1	4	6
CU	4	8	3	3	3	7	11

There was no difference between the two groups in either the type of negative emotion or the total number of negative emotions expressed. There was a tendency for the informants from the CU group to express more emotions related to Stress/Anxiety using words like “lunatic,” “trapped,” “difficult,” “overwhelmed,” “worry,” or “burnt out.” Informants from the CD group tended to express more words related to Fear, such as “afraid,” “frightening,” or “horrible.”

An excerpt from participant 015 of the CU group illustrates the tendency for caregivers in this group to express stress/anxiety towards parenting and their relationship with their child:

It, it's hard to be a happy person when you're around something like that. Um, you know the transition from work to home is difficult because I'm very concentrated, very focused at work, and I come home it's. You just never know. You don't know what you're walking into. It's like eggshells. And the tiniest little thing could set him off and the rest of your night is ruined. And it's just hard to, it's just hard to appreciate your life, it's hard to find the good things and enjoy those things when you have that in your ear.

Participant 017, from the CD group, illustrates the tendency for caregivers in this group to express fear for the future of their child:

I don't let her out the yard to go up the street, because I'm afraid that her mouth will get her in trouble. And my fear now is going to the high school and she's putting stuff on Facebook. Don't know these people from a can of paint, but in so many words, like calling them out. And that's my biggest fear. Her getting up there and they're going to target her not even knowing her.

Correlations between the DASS scales and the total number of negative emotions expressed, and the number of categories of emotions – the range of emotions expressed – are shown in Table 6.

Table 6

Correlations between DASS Scales and Negative Emotions Expressed in Interviews

	Total Negative Emotions Expressed	Number of Categories of Emotion
Depression	.54 (.012)	.55 (.012)
Anxiety	.72 (<.001)	.73 (<.001)
Stress	.56 (.010)	.56 (.010)

The correlations from Table 6 show a positive and significant relationship between the caregiver's total number of negative emotions expressed (e.g. sadness, anger, shame/guilt), the number of categories of negative emotions, and the DASS scores. Particularly, DASS Anxiety correlated highly with both total negative emotions expressed ( $r = .72, p < .001$ ) and the number of categories of negative emotions in the

interview ( $r = .73$ ,  $p < .001$ ). This is logical, as both the DASS scales and the measures derived from the interviews assess the same thing.

Negative emotions expressed during the interview were classified into one of four categories, based on the target of the emotion: the Self; Parenting; Relationship with the Child; or the Future. The frequencies are summarized in Table 7. The two groups did not differ in terms of the target of expressed emotion.

Table 7

Target of the Informant's Negative Emotion

	Self	Parenting	Relationship	Future
CD	11	26	18	9
CU	26	32	24	6

The caregiver's coping strategies mentioned in the interview were classified as formal or informal (see Table 8). Formal coping was separated into two groups: personal methods (medication, DYFS, therapy) and public/community methods (support organizations, parenting classes, ALANON meetings). Informal coping was separated into three groups: interpersonal methods (family, husband, and friends); public/community methods (college, work, and church); and personal methods (drinking, alone-time, hobbies, crying, exercise, yelling). The frequency with which each type of coping strategy was mentioned was recorded and analyzed. No significant difference was found between the two groups. However, there was a significant difference in the number of different types of coping strategies used. CD parents tended to use more different types

of coping methods (of the five types mentioned above) than CU parents ( $t = 2.34$ ,  $df = 18$ ,  $p_{05} = 0.031$ ).

Table 8

## Coping Strategies Classified by Group

	Formal Strategies			Informal Strategies	
	Personal	Public/Community	Interpersonal	Public/Community	Personal
CD	5	6	4	4	5
CU	7	7	9	9	9

The resources sought out by each participant were recorded from the transcribed interviews. There was no difference found between groups regarding the number of resources used across the following classifications: emergency services (DYFS, Crisis center), school/daycare services, mental health services (counseling, psychologist, psychiatrist), alternative schools (Brookfield Academy), residential/partial care programs (Devereux, Kennedy, Rainbow House), medical (pediatrician, neurologists, medication), support groups/classes (Family Support Organizations, ALANON, parenting classes, educating self with internet), and legal services (police, court). However, the CU parents tended to utilize school/daycare, mental health services, and medical resources more often than the CD parents (Table 9).

Table 9

## Resources Classified by Group

	Emergency Services	School/Daycare	Mental Health Services	Alternative Schools/Classes	Residential/Partial Care	Medical	Support Group/Meetings	Legal
CD	4	6	6	5	6	6	8	3
CU	6	10	12	2	5	12	11	5



The mean for the ICU total (the sum of items 1-24) was calculated for the sample and for each group. The mean score for the total group was 35.45 (sd = 9.34). The mean for the CD group was 27.63 (sd = 8.52); the mean for the CU group was 40.67 (sd = 5.52). That the two groups differ so widely is not surprising, since the ICU (the Frick and Moffitt CU specifier) was the instrument used to classify the cases to begin with. Mean scores for community samples reported in the literature are about 22.05 (sd = 8.17; Kostas, Frick & Georgiou, 2009; Essau, Sasagawa, & Frick, 2006; Roose et al., 2009), indicating that the youth in this sample were more disturbed than average.

The total ICU scores for the sample were correlated with the other measures used in the study. The ICU total score correlated negatively with the informant's age ( $r = -.52$ ,  $p = .02$ ), and negatively with the number of siblings in the family ( $r = -.44$ ,  $p = .053$ ). There was a marginal correlation with the DASS Stress scale ( $r = 0.34$ ,  $p = .137$ ), but the total ICU score did not correlate with the other DASS measures. Nor did it correlate with negative emotions expressed in the interview by the caregiver, the number of coping strategies named, the number of resources identified, or the age of onset of the child's problem behaviors. The only significant correlation with the ECBQ temperament scales was for the Negative Affect scale ( $r = .43$ ,  $p = 0.056$ ).

Twenty-one items were added to the ICU in an attempt to explore additional characteristics of the subject children (Appendix F, items 25 through 45). The items were grouped as follows: Fearlessness, Lack of Anxiety, Aggression, Narcissism, Cognition, and Physicality. As shown in Table 10, several of the items, particularly items from the Anxiety, Cognition, and Physicality groups, differentiated between the CU/CD groups. Relative to children in the CD group, CU children show relatively less anxiety, are less

concerned about threat, show greater aggression, and are more controlling. They are critical and belittling of others. They are not more physically active, but they show an early need for independence and are less likely than CD's to want to discuss their problems with others.

Table 10

## ICU Supplemental Items

Item	Group	Rank <sup>1</sup>	d-value <sup>2</sup>	Content
25	Fearless			
26	Anxiety	10	.44	Seldom shows signs of anxiety or worry
27	Anxiety			
28	Anxiety	1	1.72	Does not care if he/she is threatened
29	Aggression	8	.61	Exhibits focused and planned aggression
30	Narcissism			
31	Narcissism			
32	Narcissism			
33	Narcissism			
34	Narcissism	4	-.76	Has a very high opinion of himself/herself
35	Narcissism			
36	Narcissism	5	.73	Seems controlling at times
37	Cognition	2	1.21	Expresses disdain for others; belittles them
38	Cognition	3	.85	Constantly criticizes others
39	Cognition			
40	Cognition			
41	Cognition			
42	Physicality			
43	Physicality	9	-.60	Would much rather be active
44	Physicality	7	-.64	When confronting problems, prefers to discuss it with others (Reversed)
45	Physicality	6	.67	Highly independent, even from an early age

<sup>1</sup> Ranked by size of the d-measure, for  $d \geq |.44|$ .

<sup>2</sup> Calculation of the standardized d-measure is shown in Appendix M. A positive d-measure indicates the item mean for the CU group was larger than the item mean for the CD group.

An attempt was made to cluster the cases using SPSS Cluster Analysis. Two types of analysis were conducted. The first combined categorical with continuous

variables in a two-step procedure. In the second, a hierarchical analysis was conducted using only the continuous variables. Neither analysis was successful in forming unique sub-groups. In both cases, the optimal solution achieved by the program formed one large group, or alternatively, considered each of the 20 cases as a separate group.

### *Summary*

All three hypotheses (expression of negative emotions, coping strategies, and temperament) were not confirmed. Of the analyses performed, most were not significant except: 1) the caregivers in the CD group tended to use more different types of coping strategies than those in the CU group and; 2) The DASS scales correlated with the total number of negative emotions mentioned in the interviews, regardless of the category.

### Discussion

20 caregivers of children with Conduct Disorder (CD) were interviewed and the cases were classified as CD-only or CD with Callous-Unemotional (CU) traits. 12 cases were children with CU traits; 8 were cases with CD only. All but one of the caregivers was female; the mean age of the caregivers was 43.4 years. The caregivers in the sample were in the middle range of socio-economic status. If “middle class” were divided into three strata, this group would come from the lower or middle of the three. All of the caregivers in the sample had a high school education, and a few had some college education or higher. The median family income was \$49,000, with a range from \$8,463 to \$125,000. As shown in Table K4, there was one great aunt, one step-grandmother, and one grandmother. One of the mothers did not have legal custody of her child and only saw the child occasionally.

The caregivers in the CD and CU groups did not differ in terms of their mean score on any of the three DASS scales. As a whole this group of parents is significantly more disturbed than average when compared to the reference means for the DASS scales reported by Henry and Crawford (2005; see Table 1). Converting the sample means to z-score equivalents based on the Henry and Crawford data resulted in z-values, all of them positive and greater than 2.0, which were as follows: Depression,  $z = 2.61$ ; Anxiety,  $z = 2.41$ ; and Stress,  $z = 3.49$ . This finding was expected as the caregivers are dealing with children with behavioral issues, which current literature has shown to be associated with negative emotions (Eakes, 1995; Lefley, 1997). The DASS scoring instructions divide the scores for each scale into the following categories: normal (0-9 depression; 0-7 anxiety; 0-14 stress), mild (10-13 depression; 8-9 anxiety; 15-18 stress), moderate (14-20 depression; 10-14 anxiety; 19-25 stress), severe (21-27 depression; 15-19 anxiety; 26-33 stress), and extremely severe (28+ depression; 20+ anxiety; 34 stress). Based on the above, the sample can be described as “mildly depressed,” “mildly anxious,” and “moderately stressed.”

There were 13 male and 7 female children. The mean age of the children was 13.75 years ( $sd = 2.95$  years), with ages ranging from 7 to 17 years. The mean age of onset of the disturbed behavior, as reported by the caregiver, was 5.13 years, ( $sd = 3.65$  years), with a range from 1 week old to 14 years old. Each child had a mean of 2.65 siblings ( $sd = 1.9$ ), with a range from zero to six.

The ECBQ was used to retrospectively assess temperament in the participant's children. The mean scores were converted to z-score equivalents using normative data supplied by Putnam (Table 2). The z-score equivalents were as follows: Negative Affect,

$z = 0.08$ ; Surgency,  $z = 2.43$ ; and Effortful Control,  $-0.23$ . Except for Surgency, the means for children in this sample were close to those in the normative group. The children in this sample were significantly more active and outgoing as toddlers than the children in Putnam's normative sample.

The total ICU mean (items 1-24) was calculated for the sample and for each group. Mean scores from existing literature found in community samples were approximately 22.05, compared to the total mean for the sample which was 35.45. The youth in this sample were significantly more disturbed than average youth (Kostas, Frick & Georgiou, 2009; Essau, Sasagawa, & Frick, 2006; Roose et al., 2009).

There were very few differences between the CD and CU groups on the remaining measures. The main hypothesis, which predicted that the CU group would express emotions, experiences, and coping skills that were qualitatively different than those of caregivers of children in the CD group, was not confirmed. Also, the three sub-hypotheses predicting differences between the two groups on the expression of negative emotions, utilization of coping strategies, and temperament of the child were not confirmed. This lack of differences is thought to be a result of limitations with the case selection process, which will be focused on in a later section.

In addition to the lack of predicted differences between the groups, analysis of the data also yielded a contradictory finding. The CU children tended to score higher than the CD children on the Negative Affect scale on the ECBQ, when it was expected that they would score lower. It was first thought that the discrepancy might be due to the multiple subcategories of items within the Negative Affect scale (i.e. frustration, sadness, fear). However, an item analysis determined that the CU children scored higher, rather than

lower, on the fear and sadness items. This finding was not expected, as prior literature has theorized that CU children have a temperament relatively lacking in negative emotions such as fear and sadness (Frick & Morris, 2004). This difference on the Negative Affect scale was only a trend and not a significant finding, and could be the result of a Type I error.

The only significant difference between the two groups showed that the CD caregivers tended to utilize more different types of coping strategies than the CU caregivers. There was no difference between the total number of coping strategies used or the total number of resources used. The explanation is unclear, but the difference could be the result of a Type I error. CU parents tended to express more feelings of stress/anxiety than CD parents, mainly targeted toward the relationship with the child and toward parenting. The CU parents expressed words such as “concerned,” “overwhelmed,” “trapped,” and “difficult” when describing how they felt about their child or their experiences as a parent. For example, when asked how he felt about himself as a parent when the problem behaviors were first exhibited, participant 012 from the CU group stated:

Lost. Well I was a single father. I had a low paying job. I couldn't get a better paying job, because I was a single father and I didn't really have any daycare or anything like that. So I felt trapped. I felt like I was a prisoner in my own home. Because I couldn't have a relationship, because of the way the kids were acting and raging. And I couldn't hold a relationship. I couldn't get a better job. I couldn't get a better education. I was crying myself to sleep not knowing how I was going to put food on the table, because my ex-wife took no part in helping raise the kids, or help pay for childcare, or pay child support. Nothing. So everything has always been on my shoulders. So a lot of stress. A lot of stress.

CD parents tended to express more feelings related to fear, mainly targeted toward the future (i.e. the child going to jail, being harmed, or having children of their own). CD parents used words such as, “fear,” “scared,” “afraid,” and “frightening” when talking about their child’s future. For example, when asked where she saw her daughter in the future, participant 018 stated:

Um realistically, I'm not sure. My fear is that she'll drop out of school when she gets old enough and she can do that on her own. I don't know. I see her probably working a minimum wage job, part time, living at home. I don't want to say that, living at home forever, I don't know. I don't know, marrying too young, not being able to support herself, I don't know. I worry about all that stuff.

CU parents tended to express more negative emotions toward themselves. For example, participant 020 expressed feelings of blame toward herself when asked if there was ever a moment when she felt that she could not be a parent any longer:

I think the hard, there were a lot of those moments. I think that the hardest thing that I went through was when he went into inpatient and at that point I felt like a real failure.

Although there were no differences found between groups regarding the number of resources used, the results showed a trend for the CU parents to use more daycare/school services, mental health services, and medical services as resources, than the CD parents. The CU parents concentrated their efforts on distinct areas, such as pediatricians or school psychologists, while the CD parents utilized resources spread throughout all of the categories.

The trend for CU children to score higher than the CD children on the Negative Affect scale on the ECBQ fails to support the Dual Pathway Model by Frick and Morris (2004) and Fowles and Dindo (2009). In the Frick and Morris model, the callous-

unemotional children show low fear, while those without callous-unemotional traits show high emotional reactivity. Fowles & Dindo also characterized the CU temperament as “low-fear,” where low fear temperament was only associated with CU traits. However, our findings showed the opposite, suggesting that a dual pathway model, while theoretically attractive, may need refinement. Clearly, it will require longitudinal, rather than cross-sectional, study to clarify the issue.

Current literature suggests that CU traits are relatively stable throughout development (Frick & White, 2008; Frick & Moffitt, 2010; Burke et al., 2007; Frick et al., 2003). This was confirmed by the data from this study. The traits found in the CU group were most often seen at an early age and were maintained, sometimes increasing in severity, as the child got older. However, parents of both the CD and CU group reported that the problem behavior began, or was first perceived, around the same age with a mean age of onset for the sample at 5.13 years ( $sd = 3.65$ ).

Frick and Moffitt (2010) suggested that youth with CU traits exhibit higher levels of premeditated and instrumental aggression than most CD children, but this was not seen in the current study. Parents of both groups of children reported reactive and physical aggression, usually as a result of provocation. The one exception was participant 012 from the CU group who stated the following about his daughter:

Um, she gets bored. She wants to start problems to entertain herself. When she is told, ‘no,’ that she can't do something, she is highly aggressive, very immature. That's the big one, being told no.

It may be that premeditated and instrumental aggression is more difficult to assess than reactive aggression, particularly by means of parental report. The caregivers in this study showed a pronounced tendency to interpret their child's behavior in a benign way.



Without necessarily taking the child's explanation at face value, they would almost always point to provocation as the explanation for altercations or fights.

Frick and Dickens (2006) stated that the CU population would show a preference for novel and dangerous activities, but this was not the case in this study. The few instances of reported dangerous activities (e.g. jumping from a second floor window, lying in the middle of the street) were seen in the CD children. This could be a result of a lack of impulse control and increased impulsivity, as the CD children scored higher than the CU children on the Surgency (extroversion/activity level) scale of the ECBQ.

Eakes (1995) interviewed parents of children with bipolar disorder and schizophrenia and counted specific citations of emotions during the sessions. The couples expressed many emotions, but the most common were anger (that they were in the situation), frustration (mainly with mental support services), and confusion (not understanding the disorder due to a lack of information provided by support services). The interviewees from the current study also showed a large number of emotions across eight categories, which included anger, frustration, and confusion. However, in this group these emotions were not as common as sadness, shame/guilt, and stress/anxiety. It could be that having a child with conduct problems potentially brings about more internalizing negative emotions in the caregiver than having a child with a more readily defined mental illness.

Lefley (1997) described three types of familial burden: situational stress (arising from interactions with the mentally ill person); societal stress (negative attitudes on the part of others and perceived lack of support); and 'iatrogenic' stress (arising from inadequate or misinformed service providers). All three of these categories of stress were

found in this study. An example of situational stress can be seen in the following narrative from participant 013 (CU group), when asked if her son was ever aggressive towards her:

He [the son] picked up a folding metal chair and we were down in our cellar, which is only a six-foot clearing. Luckily the light hit, he hit the light and shattered the light, which stopped the chair. How am I to know that that wasn't coming towards me? And I ran, got on the phone, and called the police. You know had the ceiling not caught the chair it could have come and got me that's what I told him. And he's telling the police, 'I wouldn't have hit her.'

An example of societal stress due to a perceived lack of support from her family can be seen in the following from participant 008 (CD group):

Even before my mom died we stopped going to family dinners and stuff because I couldn't guarantee that he was going to be OK. And when he would act out they wouldn't understand or get it. Um, so I dealt with my mom. My mom would always come see him and then go on to the other girls [her sisters], but you know it would make life a little difficult. So there's not a lot of family other than my grandmother for support.

Finally, an example of 'iatrogenic' stress can be seen in the following from participant 004 (CD group):

We fought constantly. From the moment I got home, I would come home happy from work, walk in the door, it's a mess, and something else is broken. I just, I would just feel it, and I would just start screaming. I was just a monster. And I thought we cannot live like this! You know this is not helping him at all, he needs help and I need help. You know, I am not a psychologist, I am not a therapist and I can't do this. There is so little understanding of that out there. Do you know how hard it is to get out-of-home placement? Do you know how little out-of-home placement there is? I am lucky, and I had to kick and scream for a month. You know, I started a year ahead, seeing the people coming to the house, coming to the house, coming to the house...But it wasn't what he needed.

Podolski and Nigg (2001) conducted a study on a sample of children with ADHD and found that the problem behaviors that were exhibited in public were more distressing to the parent than the hyperactivity and inattention. In this study, parents were less distressed by actions in public and more distressed by the aggressive behaviors (verbal and/or physical) at home that were directed towards the caregiver or other members of the family. Participant 015 (CU group) stated the following when asked what behaviors have been the most difficult for her to deal with as a parent:

His verbal, his verbal abuse, because it's a constant every day. 'You're stupid,' or just belittling people, that's the worst. That's the worst. I grew up with that, and I've separated myself from that person and now it's like I'm stuck in that same situation only I can't separate myself from this person. And it's hard to watch him say things like that to my daughter, because she's a girl, she's 7, she sees a lot of things on TV. And right now is an important time for her. And with her big brother calling her stupid and being mean to her, I don't think it's the best thing for her.

Floyd and Gallagher (1997) conducted a study using a sample of chronically ill and mentally ill children, as well as children with behavioral issues. The authors found that the misbehavior was more difficult to deal with than the child's disability. Specifically, this effect was found for measures of stress associated with the disruption in activities and opportunities for other family members. This was also seen in this study. In the following, Participant 010 (CD group) recalls a specific situation that was difficult for her and her family to deal with:

My son graduated 8th grade, and foolishly we would have my daughter attend everything that he did. Well, she had had it with the graduation and everyone wanted to go out for ice cream and she did not. She threw such a temper tantrum that we ended up going home. And I told my son you know, 'go with you, your grand mom and your

grandfather.' 'But it's not the same without you mommy [he said].' So, yeah, that was hard to deal with.

Participant 012 (CU group) stated the following about dealing with his daughter's problem behaviors:

There wasn't a single holiday that came where she didn't rage or have an aggression or there was some sort of problem and it ruined it for everybody else. She had to start something.

Finally, Hawes and Dadds (2005) conducted a study and found that CU youth did not respond to punishment cues and were less likely than CD youth to change their behavior under the threat of discipline. The data from this study showed a trend towards a resentment of authority as well as an adverse response to the word, 'no.' This was seen in both groups, but tended to occur more often in the CU group. An example of this can be seen in the following narrative from participant 012 (CU group):

God forbid I ever say no to her [the daughter]. She'd flip, she'd have a tantrum. Even up to 17, even up to now. If I tell her no, she'll have a tantrum. She thinks that she should be able to get everything that she wants or asks.

Participant 015 (CU group) describes her child's response to discipline when the problem behaviors first began:

Not following directions, not responding to any kind of reward system, not responding to any kind of negative reinforcement. Just didn't respond to anything. Taking things away, he didn't care. None of those things worked.

A key limitation of the current study was the case selection process. Since callous-unemotional traits are uncommon, it was unusual that the CU group was larger than the CD group. This discrepancy suggested a problem with the case selection procedure. In addition to the CD criteria, the agencies were given the 24 items from the

ICU to help them understand the type of child that they would be looking for. However, it is possible that this was not clear enough and that cases were not distinguished as clearly as they could have been if a better definition existed for a child with CU traits. For the purpose of case selection in the future, a possible definition could be as follows: A child with callous unemotional traits is a youth who exhibits planned aggression for entertainment or pleasure, a lack of fear of discipline, a sense of entitlement and self-absorbed tendencies, a lack of empathy, and an inability to express remorse and/or guilt in a sincere way. This child tends to manipulate others, or shift the blame onto others to get out of an adverse situation, or to obtain a desired outcome. A better definition of the CU personality could potentially be developed into a stricter selection criterion.

All but one of the cases for this study was selected by the directors of several family support organizations in different counties in New Jersey. These people have years of experience with the area of behavioral and emotional problems, both professionally and personally; however, the case selection process might be more effective if the cases were selected by one or two trained psychologists, who could apply the selection criteria more consistently.

The study would have benefited from a more focused age group. The current study looked at youth ages 6-17 years old. The problem behaviors, which started at different times, were at different levels of severity and frequency by the time the parent was interviewed. Focusing on a specific age group in which the problem behaviors have just begun, such as 5-7 year olds, would allow for a more consistent exploration of the topic. This would have the additional benefit of allowing the investigator to revisit this group at later ages to see how the behaviors have progressed. A longitudinal study

exploring youth with CU traits would be advantageous because traits or characteristics of both the parent and the child which would predict better or worse outcomes could be identified each time there was a follow-up. The youth could be assessed when the problem behaviors were first exhibited. Follow-up assessments could focus on the frequency and severity of the behaviors, the frequency and severity of CU traits, how the parents coped with the behavior at different ages and levels of severity, and how the parents level of negative emotions have or have not changed over the years.

The variety of resources available to these caregivers was limited by a narrow range of socio-economic status. The current sample was all middle class with access to the same services, which were often free and provided through the schools and/or the state. A more diverse sample with a full spectrum of SES might be more likely to reveal differences between the groups.

The involvement of the father was not an initial focus of the study and a question for this topic was not part of the interview; however, the role of the father was mentioned in most of the cases. Although the groups did not differ in terms of the father's involvement, it might be an influence on the level of adjustment, or level of disturbance of CU youth. This could be assessed qualitatively with specific questions focused on the area (e.g. How would you describe your child's relationship with his/her father? How involved is the father? How often does he see the child? What is the father's role in disciplining the child? Is he/she happy with his/her relationship with the father?). The involvement of the father could also be measured with a scale such as the Inventory of Father Involvement (Hawkins et al., 2002). Questions about the father could be extended

to include other supportive males such as stepfathers, uncles, or older brothers, who take an active role in the child's life and might have a positive effect on the child's outcomes.

Temperament in children with CU traits should also be explored further. Theories suggest that a CU child exhibits a fearless and unresponsive temperament, but more evidence is needed to confirm this. This study found the opposite of current theory, in that the CU children showed higher levels of reported fear than the CD children.

Understanding the temperament of a child with CU traits could potentially aid in early identification and intervention with children who are already deemed difficult to treat.

Another limitation was that temperament was assessed retrospectively. The mean age of the children in the sample was 13.75. The caregiver was asked to recall events when his/her child was 1 ½ to 3 years old, a gap of 11-12 years or more. This may be asking the parent to go beyond what he/she is capable of. It would be better if temperament could be assessed at an earlier age when the child first started to exhibit the problem behaviors. For example, under a cooperative arrangement with a large school district, children could be identified and referred when the behaviors first manifested themselves.

The capacity for effortful control in the child should be investigated further. The very short form of the ECBQ was utilized for this study for its brevity; however, the full version of the ECBQ could be used to assess effortful control in a sample of CU youth to determine how this population differs from community and CD samples. Subcategories from the Effortful Control scale on the ECBQ, such as attentional focusing and inhibitory control, could be explored further. Attentional focusing is the child's ability to resist distraction when completing an activity, while inhibitory control is the child's capacity to stop a behavior when told, "no" (Putnam, Garstein, & Rothbart, 2006). Exploring these

categories further would allow for a more in depth view of the differences between CU and CD children, as greater effortful control has been related to fewer conduct problems.

The ICU was used in this study to classify the children as CU or CD, but it need not be used in this way. It can be used as a continuous measure. In this study, the total ICU score was correlated with the other measures. For the ECBQ scale, the only significant correlation was for Negative Affect ( $r = .43$ ,  $p = 0.056$ ). The ICU total score correlated negatively with the informant's age ( $r = -.52$ ,  $p = .02$ ), and negatively with the number of siblings in the family ( $r = -.44$ ,  $p = .053$ ). There was a marginal correlation with the DASS Stress scale ( $r = 0.34$ ,  $p = .137$ ), but the total ICU score did not correlate with the other DASS scales. It would be worth exploring these areas further to determine if the level and severity of CU traits were related to the caregiver's level of stress and negative affect.

Extra items were added to the ICU specifically because current literature has not fully explored these areas with this population. Some of the items, particularly items from the Anxiety, Cognition, and Physicality groups, differentiated between the CU and CD groups and would be worth investigating in the future. Relative to children in the CD group, the CU children showed less anxiety, were less concerned about threat, showed greater aggression, and were more controlling, which was consistent with earlier theories (Frick, 2001; Frick & Moffitt, 2010). CU children are critical and belittling of others and tended to show an early need for independence. They were less likely than CD children to want to discuss their problems with others. In the future, it would be worth determining whether these topics should be incorporated into the ICU to improve it as a measure of CU traits.



A more discriminating dimensional measure would have advantages for research as a measure of the child's disturbance-or the extent to which the case in question approached the prototypical CU child. It could be correlated with other measures, for example measures of parental distress and the type of coping methods or resources utilized. It might allow for a better understanding CU youth, the tailoring of interventions and the assessment of their effectiveness. It might also permit identification of protective factors which lead to better outcomes for the child.

Assessing the caregiver's personality could shed light on the differences between the parents of subgroups of CD youth. Personality assessments could measure parental traits such as resiliency, empathy, or passivity. The resilience or resourcefulness of the caregiver may affect their level of distress, as well as their level of parental involvement. Parental resilience could be assessed using a quantitative measurement such as The Resilience Scale (Wagnild, 2010), or questions could be developed to assess it qualitatively. Protective or favorable factors of the caregiver should be researched further to determine if certain characteristics of the caregivers make the child less or more likely to develop CU traits.

Assessing protective factors in the caregiver requires evaluating the relationship with the child. In this study, one of the mothers did not have legal custody of the child and the child did not live with her. In other cases, the grandmother or great-aunt became the legal guardian when the child was older, and in others the child was constantly in and out of inpatient programs. One would not expect the traits of the caregiver to have much measurable effect on the child where there was a lack of consistency or continuity in the caregiving. Future research could exclude cases in which the caregiver had not

consistently been involved in the child's life, or could assess the level of involvement or continuity as a possible control or moderating variable. Assessing these protective factors could give insight into how the parent's positive attributes affect the development of problem behaviors and CU traits.

Parental distress in relation to youth with problem behaviors and CU traits is an important area for future research. Other than the DASS-21 used in this study, parental distress could be measured through interview questions, such as: What emotions did you feel when he/she first started showing problem behaviors? How do his/her behaviors affect you as a parent? Do you feel unhappy at times? Are you satisfied with your relationship with your child? Do feel overwhelmed by your parental responsibilities? A quantitative measure such as the Parental Stress Scale (Berry & Jones, 1995) could also be utilized.

The current study was an exploratory analysis of how the caregivers of the subgroups of conduct disorder differ in terms of negative emotions, coping strategies, and reports of their child's temperament in early childhood. While no significant differences were found in this study, a great deal of investigation is still needed in the future. The hope is that improved assessment of both caregivers and children will eventually lead to better diagnosis, prognosis, and individually tailored and more effective methods of treatment.

## Appendices

- A. DSM-IV-TR Criteria for Conduct Disorder
- B. Screening Criteria for Recruiting Agencies
- C. Recruitment Letter
- D. Consent Form
- E. Audio/Video Tape Addendum Consent Form
- F. Modified Inventory of Callous-Unemotional Traits (ICU) and scoring method
- G. Semi-structured Interview
- H. Depression Anxiety Stress Scales (DASS-21)
- I. Early Childhood Behavior Questionnaire (ECBQ)
- J. Demographic Information
- K. Tables (CD/CU)
  - K1 – Caregiver Occupation
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  - K3 – Race of Caregiver
  - K4 – Relationship of Caregiver to child
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  - K10 – Medications Classified by Group
- L. ECBQ Negative Affect Items Ranked by Size of the d-Measure
- M. Calculating the Standardized d Measure

**A. DSM-IV-TR criteria for Conduct Disorder** (American Psychiatric Association, 2000).

- A. A repetitive and persistent pattern of behavior in which the basic rights of others or major age-appropriate societal norms or rules are violated, as manifested by the presence of three (or more) of the following criteria in the past 12 months, with at least one criterion present in the past 6 months:

Aggression to people and animals:

1. often bullies, threatens, or intimidates others
2. often initiates physical fights
3. has used a weapon that can cause serious physical harm to others (e.g., a bat, brick, broken bottle, knife, gun)
4. has been physically cruel to people
5. has been physically cruel to animals
6. has stolen while confronting a victim (e.g., mugging, purse snatching, extortion, armed robbery)
7. has forced someone into sexual activity

Destruction of property:

8. has deliberately engaged in fire setting with the intention of causing serious damage
9. has deliberately destroyed others' property (other than by fire setting)

Deceitfulness or theft:

10. has broken into someone else's house, building, or car
11. often lies to obtain goods or favors or to avoid obligations (i.e., "cons" others)
12. has stolen items of nontrivial value without confronting a victim (e.g., shoplifting, but without breaking and entering; forgery)

Serious violations of rules:

13. Often stays out at night despite parental prohibitions, beginning before age 13 years
14. Has run away from home overnight at least twice while living in parental or parental surrogate home (or once without returning for a lengthy period)
15. Is often truant from school, beginning before age 13 years

B. The disturbance in behavior causes clinically significant impairment in social, academic, or occupational functioning.

C. If the individual is age 18 years or older, criteria are not met for Antisocial Personality Disorder

**B. Screening Criteria for Recruiting Agencies:** Given to the Directors of the family support organizations in Camden, Burlington, and Mercer counties to use at their own discretion in order to find and recruit participants for this study.

The parent qualifies for participation if the child:

1. Is between the ages of 6 through 17 years old.
2. Does not have an autism spectrum disorder (Autism, Aspergers).
3. Shows at least three of the criteria for conduct problems (regardless of formal diagnosis):
  - Consistently disregards rules or laws (runs away from home, stays out late when told not to, skips school).
  - Deliberately destroys property belonging to someone else (graffiti, sets fires, smashes windows).
  - Shows aggression toward other people or animals (fighting, using a weapon, bullying).
  - Theft (breaks into someone else's house, car, locker).
  - Deceitful or manipulative behaviors, cons others to gain favors, lying.

### C. Recruitment Letter

The agency will be asked to identify cases that qualify for the study and determine if the child fits the DSM-IV criteria for CD. The agency will then send a letter, which I have created, to the parent asking for their consent to be contacted for participation in the study.

Date

Dear Sir/Madam,

You are invited to participate in a study of parental coping strategies, which will be administered by Ms. Erika Olsen, a graduate student at Rutgers University-Camden. This study will serve as her Masters Thesis project, and as such, she will be acting as the principal investigator. The study will involve the direct participation of a primary caregiver of a child who has experienced behavioral problems. Ms. Olsen is interested in studying how parents/caregivers respond emotionally when dealing with or reflecting on their child's disruptive behavior.

Please be advised that your name and other information have been kept confidential. This letter has been sent out by our facility in order to ensure that your identity is protected. The only way that the investigator will know your identity is if you consent to participate in the study.

Participation will be completely confidential, meaning that no one but the principal investigator will know your information. Participation will be completely voluntary. Your participation in the study in no way affects your status with our facility. The study will consist of three short questionnaires, an interview, and a few demographic questions which will take about 1-2 hours. If you choose to volunteer, you will be compensated for your time in the amount of \$20.00.

Our facility is not directly involved in this study and will not be held accountable for any risks or benefits regarding the above. Ms. Olsen will explain the study further when she contacts you, and will answer any questions that you may have. At that point you can decide whether you wish to participate in the interview.

If you agree to be contacted, please sign the last page and return it in the enclosed self-addressed, stamped envelope. Before we can release any information to Ms. Olsen, or have her contact you, the signature page must be filled out and returned.

Thank you for your time and attention,

X \_\_\_\_\_ (Agency/School)

(Page 2)

I, \_\_\_\_\_, (print name) consent to be contacted by the principal investigator regarding participation in a graduate research study.

X \_\_\_\_\_ (signature)

## **D. Consent form**

**Title of Study:** Negative Affect and Coping in Caregivers of Conduct Disordered Youth

**Principal Investigator:** Erika Olsen

**Introduction:**

You are invited to participate in a research study. Before you agree to participate in this study, you should know enough about it to make an informed decision. Please read the following carefully before signing. If you have any questions, please ask the investigator.

**Purpose:**

The purpose of this study is to gain a better understanding of how caregivers cope emotionally with having a child that exhibits different types of problem behaviors. The aim of this project is to gain insight into the situations and subsequent emotions that go along with parenting, and the ways in which the caregiver attempts to cope with specific difficult events.

**Procedures:**

Participation in this study will last approximately 1-2 hours, and will involve the following:

1. Completing a trait inventory that asks questions about your child.
2. Completing a questionnaire about your current thoughts and feelings.
3. Participating in an interview that asks questions about your child's difficulties, and how, as a parent/guardian, you have coped with them.
4. Answering a few questions about your demographic information (i.e. occupation, education, income, etc.).

**Risks:**

There are no foreseeable risks or discomforts involved with this study. Participation is completely voluntary. You may skip any question during the study that you wish. This study will not provide any type of treatment related to the above topic.

**Benefits:**

This study offers you an opportunity to discuss your relationship with your child. The knowledge that we obtain from your participation, and the participation of other volunteers, will help us better understand youth with conduct problems, and learn how parents cope with this disruptive behavior. This knowledge could lead to better interventions and prognosis for youth with behavioral problems.

**Confidentiality:**

This research is confidential. The information will be kept confidential by limiting access to the research data and keeping it in a secure location. The research team and the Institutional Review Board at Rutgers University are the only parties that will be allowed to see the data, except as may be required by law. If a report of this study is published, or the results are presented at a professional conference, only group results will be given, or examples cited anonymously for illustrative purposes. All participants will receive a code (i.e. 001, 002, 003), and this code will be used, rather than your name, on all subsequent documents. I will be the only one with access to the list that links your name to the specific code. Interviews will be recorded to insure accuracy. The recording will also be kept in a secure location.

**Compensation:**

For participating in this study you will receive \$20.00.

If you have any questions about the research or the procedures, you may contact the principal researcher, Erika Olsen, at 443-521-3408, or [ErikaO@camden.rutgers.edu](mailto:ErikaO@camden.rutgers.edu). If you have questions about your rights as a research subject, you may contact the Institutional Review Board administrator at

Rutgers University Institutional Review Board for the Protection of Human Subjects  
Office of Research and Sponsored Programs

3 Rutgers Plaza

New Brunswick, NJ 08901-8559

Tel: 732-932-0150 ext. 2104

Email: [humansubjects@orsp.rutgers.edu](mailto:humansubjects@orsp.rutgers.edu)

**Participation:**

**Your participation in this study is voluntary; you may decline to participate at any time without penalty. If you decide to participate, you may withdraw from the study at any time without penalty and without loss of benefits to which you are otherwise entitled. If you withdraw from the study before data collection is completed your data will be removed from the data set and destroyed.**

**Sign below if you have read over the above and agree to participate in this research study. You will be given a copy of this form to keep.**

**Subject's signature** \_\_\_\_\_ **Date** \_\_\_\_\_

**Investigator's signature** \_\_\_\_\_ **Date** \_\_\_\_\_



**E. AUDIOTAPE CONSENT****AUDIO/VIDEOTAPE ADDENDUM TO CONSENT FORM**

You have already agreed to participate in a research study entitled: Negative affect and coping in caregivers of conduct disordered youth conducted by Ms. Erika Olsen. We are asking for your permission to allow us to audiotape the interview as part of that research study. You do not have to agree to be recorded in order to participate in the main part of the study.

The recording will be used for analysis by the research team and will only include the code given by the principal investigator at the beginning of the study.

The recording will include answers to questions about your experiences as a caregiver and emotions felt due to these experiences. Recording these answers will allow for a more accurate account of these emotions and experiences by the principal investigator.

The recording will be stored in a locked compartment on the Rutgers University campus with a code that will link the tape to a name which is kept separate in another locked compartment. Only the principal investigator will have access to the information that links the code to your identity. Once the study is completed, the document linking your identity to the recording will be destroyed and the coded tape will be kept indefinitely.

Your signature on this form grants the investigator named above permission to record you as described above during participation in the above-referenced study. The investigator will not use the recording(s) for any other reason than that/those stated in the consent form without your written permission.

Subject (Print) \_\_\_\_\_

Subject Signature \_\_\_\_\_ Date \_\_\_\_\_

Principal Investigator Signature \_\_\_\_\_ Date \_\_\_\_\_

**F. Inventory of Callous-Unemotional Traits** (Frick, unpublished rating scale; modified)

Parent ID \_\_\_\_\_

Child's Present Age \_\_\_\_\_

Instructions: *Please read each statement and decide how well it describes your child **over the last 12 months**. Mark your answer by circling the appropriate number (0-3) for each statement. Do not leave any statement unrated.*

	Not at all true	Somewhat True	Very True	Definitely True
1. Expresses his/her feelings openly.	0	1	2	3
2. Does not seem to know "right" from "wrong".	0	1	2	3
3. Is concerned about schoolwork.	0	1	2	3
4. Does not care who he/she hurts to get what he/she wants.	0	1	2	3
5. Feels bad or guilty when he/she has done something wrong.	0	1	2	3
6. Does not show emotions.	0	1	2	3
7. Does not care about being on time.	0	1	2	3
8. Is concerned about the feelings of others.	0	1	2	3
9. Does not care if he/she is in trouble.	0	1	2	3
10. Does not let feelings control him/her.	0	1	2	3
11. Does not care about doing things well.	0	1	2	3
12. Seems very cold and uncaring.	0	1	2	3
13. Easily admits to being wrong.	0	1	2	3
14. It is easy to tell how he/she is feeling.	0	1	2	3
15. Always tries his/her best.	0	1	2	3
16. Apologizes ("says sorry") to persons he/she has hurt	0	1	2	3
17. Tries not to hurt others' feelings.	0	1	2	3
18. Shows no remorse when he/she has done something wrong.	0	1	2	3
19. Is very expressive and emotional.	0	1	2	3
20. Does not like to put the time into doing things well.	0	1	2	3
21. The feelings of others are unimportant to him/her.	0	1	2	3
22. Hides his/her feelings from others.	0	1	2	3
23. Works hard on everything.	0	1	2	3
24. Does things to make others feel good.	0	1	2	3
<u>Additional Items</u>				
25. Does not seem afraid when another child might.	0	1	2	3
26. Seldom shows signs of anxiety or worry.	0	1	2	3
27. Seems calm and unaroused most of the time.	0	1	2	3
28. Does not care if he/she is threatened.	0	1	2	3

29. Exhibits focused and planned aggression.	0	1	2	3
30. Everything relates to him/her.	0	1	2	3
31. Looks at situations in terms of what he/she can get out of it.	0	1	2	3
32. Is quick to pick up on potentially rewarding situations.	0	1	2	3
33. Thinks other people feel or think the same way he/she does	0	1	2	3
34. Has a very high opinion of himself/herself.	0	1	2	3
35. Believes that others share the same opinion of themselves.	0	1	2	3
36. Seems controlling at times.	0	1	2	3
37. Expresses disdain for others; belittles them.	0	1	2	3
38. Constantly criticizes others.	0	1	2	3
39. May blatantly deny something that was witnessed.	0	1	2	3
40. Can rapidly find a reason for anything he/she wants to do.	0	1	2	3
41. Uses excuses that are obviously made up at that moment.	0	1	2	3
42. Shows a preference for physical activity	0	1	2	3
43. Would much rather be active.	0	1	2	3
44. When confronting problems, he/she prefers to discuss it with others.	0	1	2	3
45. Highly independent, even from an early age.	0	1	2	3

**\*\*Scoring the ICU using the Frick & Moffitt (2010) severity specifier criteria (4 factors):**

***Directions:** Individual must score a total of 3 on a factor to meet the criteria for that specific dimension. Once the individual meets the criteria for two or more of the below emotional factors (excluding factor 3), they have qualified for the CU severity specifier.*

- 1) Remorse (7 items)
- 2) Empathy (4 items)
- 3) Performance (6 items)
- 4) Affect (7 items)

#### Factor 1: Remorse

2. Does not seem to know “right” from “wrong”.
4. Does not care who he/she hurts to get what he/she wants
5. (Reversed) Feels bad or guilty when he/she has done something wrong
9. Does not care if he/she is in trouble
13. Easily admits to being wrong
16. (Reversed) Apologizes (“says he/she is sorry”) to persons he/she has hurt
18. Shows no remorse when he/she has done something wrong

## Factor 2: Empathy

- 8. (Reversed) Is concerned about the feelings of others
- 17. (Reversed) Tries not to hurt others' feelings
- 21. The feelings of others are unimportant to him/her
- 24. (Reversed) Does things to make others feel good

## Factor 3: Performance

- 3. (Reversed) Is concerned about schoolwork
- 7. Does not care about being on time
- 11. Does not care about doing things well
- 15. (Reversed) Always tries his/her best
- 20. Does not like to put the time into doing things well
- 23. (Reversed) Works hard on everything

## Factor 4: Affect

- 1. (Reversed) Expresses his/her feelings openly
- 6. Does not show emotions
- 10. Does not let feelings control him/her.
- 12. Seems very cold and uncaring
- 14. (Reversed) It is easy to tell how he/she is feeling
- 19. (Reversed) Is very expressive and emotional
- 22. Hides his/her feelings from others

**G. Semi-structured Interview:** In order to assess the differences in emotional reactions toward their child's problem behaviors, as well as specific events that have occurred and the ways in which the caregiver has coped with these behaviors, a tentative interview guide has been developed. Questions are to guide the interview, but may be changed according to the caregiver's answers.

**Interview Guide**

1. Was this your first child?
2. What were your initial feelings toward having a child? Did you feel prepared?
3. Describe your child as a toddler/infant (1-3 years old). How did your child act, and how did he/she respond to you emotionally? (Smiling, cried a lot, hard to console, active, friendly, etc).
4. At what age did you first notice that he/she was showing problem behavior? Describe the event that occurred (events leading up to, during, and after). How did this make you feel?
5. What do you think was the cause of this behavior?
6. During this time, how did you feel about yourself as parent?
7. What were your feelings toward your child and your relationship with your child?
8. How did you cope with the stress of the problem behavior? Did you seek any mental health services for you or your child? If so, what were they?
9. Was there ever a time that you felt like you could not deal with being a parent? What was the situation and how did you get through it?
10. Since the problem behavior began, what specific behaviors has he/she gotten in trouble for (school, home, community, etc.)?
11. What type of behaviors has he/she exhibited that have been especially hard for you and your family to deal with? Please give an example.
12. Describe your child's normal emotional reaction when getting into trouble (ex. Cries, gets anxious, throws a temper tantrum, feels guilty, feels no remorse, is unconcerned with others feelings, etc.). Please give an example.
13. Has this emotional reaction changed over the years? How so?

14. How would you describe your relationship with the rest of your family? Other children?
15. What do you think is currently causing your child's problem behavior?
16. How do you cope/deal with the stress of parenting?
17. How would you describe your relationship with your child compared to what you think a parent-child relationship "should" be? Elaborate on your answer.
18. Do you think that your son/daughter will ever improve his/her behavior?
19. Where do you see your child in the future?
20. How do you feel when you think about the future? (Scared, sad, hopeful, hopeless, lost, happy?)

## H. Depression Anxiety Stress Scales (DASS-21)

Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you *over the past week*. There are no right or wrong answers. Do not spend too much time on any statement.

*The rating scale is as follows:*

0 Did not apply to me at all

1 Applied to me to some degree, or some of the time

2 Applied to me to a considerable degree, or a good part of time

3 Applied to me very much, or most of the time

- |  |         |
|--|---------|
| 1. I found it hard to wind down  | 0 1 2 3 |
| 2. I was aware of dryness of my mouth  | 0 1 2 3 |
| 3. I couldn't seem to experience any positive feeling at all   | 0 1 2 3 |
| 4. I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)            | 0 1 2 3 |
| 5. I found it difficult to work up the initiative to do things   | 0 1 2 3 |
| 6. I tended to over-react to situations  | 0 1 2 3 |
| 7. I experienced trembling (eg, in the hands)  | 0 1 2 3 |
| 8. I felt that I was using a lot of nervous energy   | 0 1 2 3 |
| 9. I was worried about situations in which I might panic and make a fool of myself   | 0 1 2 3 |
| 10. I felt that I had nothing to look forward to   | 0 1 2 3 |
| 11. I found myself getting agitated  | 0 1 2 3 |
| 12. I found it difficult to relax  | 0 1 2 3 |
| 13. I felt down-hearted and blue   | 0 1 2 3 |
| 14. I was intolerant of anything that kept me from getting on with what I was doing  | 0 1 2 3 |
| 15. I felt I was close to panic  | 0 1 2 3 |
| 16. I was unable to become enthusiastic about anything   | 0 1 2 3 |
| 17. I felt I wasn't worth much as a person   | 0 1 2 3 |
| 18. I felt that I was rather touchy  | 0 1 2 3 |
| 19. I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat) | 0 1 2 3 |
| 20. I felt scared without any good reason  | 0 1 2 3 |
| 21. I felt that life was meaningless   | 0 1 2 3 |

# I. The Early Childhood Behavior Questionnaire (Putnam, Garstein, & Rothbart, 2006)

INSTRUCTIONS: Please read carefully before starting.

As you read each description of the child's behavior below, please indicate how often the child did this during toddlerhood (approx 1 ½ -3 years old) by circling one of the numbers in the right column. These numbers indicate how often you observed the behavior described during toddlerhood, not before (newborn) or after (school-age).

<u>Never</u>	<u>Never Rarely</u>	<u>Less than Half the time</u>	<u>About Half the time</u>	<u>More than Half the time</u>	<u>Almost Always</u>	<u>Always</u>	<u>Does Not Apply</u>
1	2	3	4	5	6	7	NA

As you will be asked to recall behaviors that have happened several years ago, take your time and answer to the best of your ability. If you are unsure about an answer, please circle NA for "does not apply" rather than "never," as the former suggests that you do not remember, and the latter suggests that the behavior was never present. Please be sure to circle a number or NA for every item.

Think of an event that occurred when your child was 1 ½ years old. Please write it here:

Now, think of an event that happened around your child's 3<sup>rd</sup> birthday. Please write it here:

Please think about the time between these two events when answering the following questions:

**When approached by an unfamiliar person in a public place (for example, the grocery store), how often did your child**

1. cling to a parent? 1 2 3 4 5 6 7 NA

**While having trouble completing a task (e.g., building, drawing, dressing), how often did your child**

2. get easily irritated? 1 2 3 4 5 6 7 NA

**When a familiar child came to your home, how often did your child**

3. seek out the company of the child? 1 2 3 4 5 6 7 NA

**When offered a choice of activities, how often did your child**

4. decide what to do very quickly and go after it? 1 2 3 4 5 6 7 NA

**During daily or evening quiet time with you and your child, how often did your child**

5. enjoy just being quietly sung to? 1 2 3 4 5 6 7 NA

**While playing outdoors, how often did your child**

6. choose to take chances for the fun and excitement of it? 1 2 3 4 5 6 7 NA



**When engaged in play with his/her favorite toy, how often did your child**

- |  |   |   |   |   |   |   |   |    |
|--|---|---|---|---|---|---|---|----|
| 7. play for more than 10 minutes?  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | NA |
| 8. continue to play <u>while at the same time</u> responding to your remarks or questions? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | NA |

**When told that loved adults would visit, how often did your child**

- |                      |   |   |   |   |   |   |   |    |
|----------------------|---|---|---|---|---|---|---|----|
| 9. get very excited? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | NA |
|----------------------|---|---|---|---|---|---|---|----|

**During quiet activities, such as reading a story, how often did your child**

- |   |   |   |   |   |   |   |   |    |
|---|---|---|---|---|---|---|---|----|
| 10. fiddle with his/her hair, clothing, etc.? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | NA |
|---|---|---|---|---|---|---|---|----|

**While playing indoors, how often did your child**

- |                                 |   |   |   |   |   |   |   |    |
|---------------------------------|---|---|---|---|---|---|---|----|
| 11. like rough and rowdy games? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | NA |
|---------------------------------|---|---|---|---|---|---|---|----|

**When being gently rocked or hugged, how often did your child**

- |                             |   |   |   |   |   |   |   |    |
|-----------------------------|---|---|---|---|---|---|---|----|
| 12. seem eager to get away? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | NA |
|-----------------------------|---|---|---|---|---|---|---|----|

**When encountering a new activity, how often did your child**

- |                               |   |   |   |   |   |   |   |    |
|-------------------------------|---|---|---|---|---|---|---|----|
| 13. get involved immediately? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | NA |
|-------------------------------|---|---|---|---|---|---|---|----|

**When engaged in an activity requiring attention, such as building with blocks, how often did your child**

- |  |   |   |   |   |   |   |   |    |
|--|---|---|---|---|---|---|---|----|
| 14. tire of the activity relatively quickly? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | NA |
|--|---|---|---|---|---|---|---|----|

**During everyday activities, how often did your child**

- |   |   |   |   |   |   |   |   |    |
|---|---|---|---|---|---|---|---|----|
| 15. pay attention to you right away when you called to him/her? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | NA |
| 16. seem to be irritated by tags in his/her clothes?            | 1 | 2 | 3 | 4 | 5 | 6 | 7 | NA |
| 17. become bothered by sounds while in noisy environments?      | 1 | 2 | 3 | 4 | 5 | 6 | 7 | NA |
| 18. seem full of energy, even in the evening?                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | NA |

**While in a public place, how often did your child**

- |   |   |   |   |   |   |   |   |    |
|---|---|---|---|---|---|---|---|----|
| 19. seem afraid of large, noisy vehicles? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | NA |
|---|---|---|---|---|---|---|---|----|

**When playing outdoors with other children, how often did your child**

- |   |   |   |   |   |   |   |   |    |
|---|---|---|---|---|---|---|---|----|
| 20. seem to be one of the most active children? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | NA |
|---|---|---|---|---|---|---|---|----|

**When told "no", how often did your child**

- |                                  |   |   |   |   |   |   |   |    |
|----------------------------------|---|---|---|---|---|---|---|----|
| 21. stop the forbidden activity? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | NA |
| 22. become sadly tearful?        | 1 | 2 | 3 | 4 | 5 | 6 | 7 | NA |

**Following an exciting activity or event, how often did your child**

- |                                |   |   |   |   |   |   |   |    |
|--------------------------------|---|---|---|---|---|---|---|----|
| 23. seem to feel down or blue? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | NA |
|--------------------------------|---|---|---|---|---|---|---|----|

**While playing indoors, how often did your child**

- |                            |   |   |   |   |   |   |   |    |
|----------------------------|---|---|---|---|---|---|---|----|
| 24. run through the house? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | NA |
|----------------------------|---|---|---|---|---|---|---|----|

**Before an exciting event (such as receiving a new toy), how often did your child**

- |  |   |   |   |   |   |   |   |    |
|--|---|---|---|---|---|---|---|----|
| 25. get very excited about getting it? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | NA |
|--|---|---|---|---|---|---|---|----|

**When s/he asked for something and you said "no", how often did your child**

26. have a temper tantrum? 1 2 3 4 5 6 7 NA

**When asked to wait for a desirable item (such as ice cream), how often did your child**

27. wait patiently? 1 2 3 4 5 6 7 NA

**When being gently rocked, how often did your child**

28. smile? 1 2 3 4 5 6 7 NA

**While being held on your lap, how often did your child**

29. mold to your body? 1 2 3 4 5 6 7 NA

**When a familiar adult, such as a relative or friend, visited your home, how often did your child**

30. want to interact with the adult? 1 2 3 4 5 6 7 NA

**When asked to do so, how often was your child able to**

31. be careful with something breakable? 1 2 3 4 5 6 7 NA

**When visiting a new place, how often did your child**

32. not want to enter? 1 2 3 4 5 6 7 NA

**When s/he was upset, how often did your child**

33. cry for more than 3 minutes, even when being comforted? 1 2 3 4 5 6 7 NA

34. become easily soothed? 1 2 3 4 5 6 7 NA

**When you were busy, how often did your child**

35. find another activity to do when asked? 1 2 3 4 5 6 7 NA

**When around large gatherings of familiar adults or children, how often did your child**

36. enjoy playing with a number of different people? 1 2 3 4 5 6 7 NA

**J. Demographic Information**

Questions regarding demographic information for the primary caregiver and child will be asked before beginning the interview. Questions will be as follows:

**Parent/Guardian Information:**

Age: \_\_\_\_\_

Gender: \_\_\_\_\_

Race: \_\_\_\_\_

Relationship to the child: \_\_\_\_\_

Income: \_\_\_\_\_

Level of education: \_\_\_\_\_

Occupation: \_\_\_\_\_

Marital Status: \_\_\_\_\_

**Child Information:**

Age: \_\_\_\_\_

Gender: \_\_\_\_\_

Race

Sibling (s): \_\_\_\_\_ (yes/no); if yes, how many? \_\_\_\_\_,

Gender? \_\_\_\_\_; and what are their ages? \_\_\_\_\_;

**K. Tables****K1. Occupation of Caregiver**

Occupation	CD	CU
Homemaker	0	3
Healthcare	2	2
Unemployed	1	2
Self-Employed	1	0
Non-Profit/Social Services	1	2
Education	2	0
Cosmetology	1	0
Accounting	0	1
Customer Service	0	2

**K2. Caregiver Marital Status**

Marital Status	CD	CU
Single	2	3
Married	3	6
Divorced	2	3
Widowed	1	0

**K3. Race of Caregiver**

Race of Caregiver	CD	CU
Caucasian	6	6
African American	2	4
Hispanic	0	1
Other	0	1

**K4. Relationship of the Child to the Caregiver**

Relationship to Child	CD	CU
Mother	7	9
Father	0	1
Grandmother	0	1
Great-Aunt	0	1
Step-Grandmother	1	0

**K5. Source of Referral**

Source of Referral	CD	CU
Collingswood	0	1
Camden	4	5
Gloucester	2	2
Burlington	1	2
Mercer	1	2

**K6. Caregiver Education**

Education	CD	CU
High School	1	8
Some College	3	4
College	2	0
Graduate School	2	0

**K7. Child's Gender**

Gender of Child	CD	CU
Female	2	5
Male	6	7

**K8. Child's Race**

Race of Child	CD	CU
Caucasian	5	6
African American	2	4
Hispanic	1	1
Other	0	1

**K9. Role of Fathers Classified by Group**

Role of Fathers	CD	CU
Not Mentioned	1	1
Vague	1	2
Negative	0	3
Some Negative	1	2
Some Positive	1	3
Positive	2	1

**K10. Medications Classified by Group**

Child's Medication Use	CD	CU
Not Mentioned	2	3
Refused to take	1	2
Did not help	0	2
Just started	1	2
Helped for a while	3	2
Helped	1	1



## L. ECBQ Negative Affect Items Ranked by Size of the d-Measure

**Item 32.** When visiting a new place, how often did your child not want to enter?

d = .907

**Item 1.** When approached by an unfamiliar person in a public place (for example the grocery store), how often did your child cling to a parent?

d = .853

**Item 22.** When told “no,” how often did your child become sadly tearful?

d = .757

**Item 23.** Following an exciting activity or event, how often did your child seem to feel down or blue?

d = .728

**Item 26.** When s/he asked for something and you said “no,” how often did your child have a temper tantrum?

d = .542

**Item 10.** During quiet activities, such as reading a story, how often did your child fiddle with his/her hair, clothing, etc.?

d = .448

**Item 33.** When s/he was upset, how often did your child cry for more than 3 minutes, even when being comforted?

d = -.408

**Item 2.** While having trouble completing a task (e.g., building, drawing, dressing), how often did your child get easily irritated?

d = .301

**Item 34 (R).** When s/he was upset, how often did your child become easily soothed?

d = .259

**Item 17.** During everyday activities, how often did your child become bothered by sounds while in noisy environments?

d = .217

**Item 16.** During everyday activities, how often did your child seem to be irritated by tags in his/her clothes?

d = .133

**Item 19.** While in a public place, how often did your child seem afraid of large, noisy vehicles?

d = .021

### M. Calculating the Standardized d Measure

The sum of squares within each group (CU/CD) is calculated in the usual way:

$$SS = \sum X^2 - \frac{(\sum X)^2}{N}$$

This produces  $SS_{CD}$  and  $SS_{CU}$

The pooled Sum of Squares,  $SS_{pooled}$  is calculated as the sum of  $SS_{CD}$  and  $SS_{CU}$

$$SS_{pooled} = SS_{CD} + SS_{CU}$$

the standard deviation for that item is calculated as

$$sd = \sqrt{\frac{SS_{pooled}}{N}}$$

The sd is calculated using N as the divisor, not N-1, making it a pure descriptive measure.

$$d = (\bar{X}_{CU} - \bar{X}_{CD}) / sd$$

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